

# CHAPTER 1

## INTRODUCTION

(RESEARCH CHAPTER – NO ACTION NEEDED)  
- PRESENTED 27 MARCH 97 -

**MARCH 27, 1997**

## **CHAPTER 1**

# **INTRODUCTION TO THE COMPREHENSIVE PLAN**

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## EXECUTIVE SUMMARY

### HISTORY OF PLANNING IN YARMOUTH

Yarmouth has had a local Planning Board since the 1920's. Originally this board did a number of forward looking studies. Then in 1946 the Town finally adopted a zoning by-law and map, followed by subdivision rules and regulations in 1955.

In 1965 a proposed master plan was prepared under the "701" program but was rejected at Annual Town meeting. And also in 1965 a regional planning agency for Barnstable County was formed.

### OPERATION OF THE COMPREHENSIVE PLAN

In late 1992 a comprehensive planning program was commenced using financial and technical assistance from the Cape Cod Commission, planning staff and consultant work. It was divided into 2 phases of 9 chapters each. The first seven Chapters are now complete. The plan will be presented to town meeting chapter by chapter, that is, in increments. There are reports prepared at 3 different levels, executive summary, long summary, and full report.

### EFFECTS OF PHYSICAL CONDITIONS

Physical conditions, as well as economic and social, have had a major effect on Yarmouth. The location, projecting out into the Atlantic Ocean, 22 miles, has given it both remoteness and scenic qualities. The climate, with abundant precipitation has yielded attractive vegetation and bodies of water. The glacial geology has provided interesting topography and the soils have provided an effective aquifer for public water sources.

### HISTORY OF DEVELOPMENT IN YARMOUTH

Yarmouth was settled by English outcasts seeking religious freedom from the country in the 17th century. They were an industrious, God fearing, and adaptable lot who scratched a difficult living from the lands and a dangerous sustenance from the sea. Change did not come to Yarmouth until the advent of the automobile in the 1930's made it far more accessible to visitors. Since World War II its population has multiplied with summer visitors and retiring seniors seeking a milder climate and better quality of life.

## **BASIC GOALS FOR THE COMPREHENSIVE PLAN**

### **A. Public Outreach**

Each portion of the Comprehensive Plan should have an active outreach effort to obtain comments and ideas from both the general public and the various Town boards and committees and also from Yarmouth's public and quasi-public groups and agencies in order to develop a realistic concept of everyone's desires for Yarmouth of the future.

### **B. Flexibility**

The Comprehensive Plan should at all times be "flexible" and have built into it a mechanism to keep it updated throughout. It should be a forward looking document, towards the future of all residents and visitors.

### **C. On-Going Nature**

The long range planning activities should be continuing over a definitive period of time, with the system susceptible to the addition of needed further data and plans, and the deletion of useless, out-of-date, or redundant materials.

### **D. Regular Updates**

A regular up-dating schedule should be devised and adequately funded in order to keep the Plan current and not allow any part to become out-of-date. The time frames of these up-dates should vary based upon subject matter and the rate of change that is being experienced.

## CHAPTER 1

### INTRODUCTION TO THE YARMOUTH COMPREHENSIVE PLAN

#### I. A NEW COMPREHENSIVE PLAN! WHY PLAN?

##### **BACKGROUND OF THE PLANNING PROGRAM**

The first attempt to prepare a comprehensive plan in Yarmouth began in 1964 and culminated in 1965 with a prodigious 248 page document. A consultant prepared this "Master Plan" for the Planning Board using a traditional scope of services for physical planning. The Plan was submitted to the town's people for their approval at Annual Town Meeting 1965. Unfortunately the Plan was overwhelmingly rejected and the Planning Board resigned instantly. We hope not to duplicate the fate of that document in our new endeavor by using an effective public outreach program.

##### **WHY PLAN?**

The "Town Plan" is an attempt to guide the growth of the town in an orderly manner with proper balance given to residential, commercial, recreational, and public uses. It is a guide to the many public and private decisions that determine what Yarmouth will be in the future. The Plan is a comprehensive projection of needs and strategies for change that takes into account the forces that are created by a dynamic society. Forces, which if not guided, can result in a disorderly growth pattern, unattractive and costly to serve. It must be "comprehensive" to accomplish this.

##### **CONTENT OF THE COMPREHENSIVE PLAN**

The Yarmouth Comprehensive Plan is set up to be done in two phases, each containing nine or ten chapters, for a total of 19 chapters. This particular document contains the first chapter of the Comprehensive Plan in a "long summary" form. The first five chapters are those chapters that will not have to request Town Meeting "endorsement", as they represent basically reference, research, and discussion items, not policy statements.

##### **WHO WILL PREPARE THE PLAN?**

Primary guidance to the Comprehensive Planning Program will be given by the Local Planning Committee which is made up of the Planning Board, with the assistance of the Growth Policy Advisory Council. Much of the technical work will be done by the existing Planning Division staff, as well as most of the "long summary" writing. They will be assisted by consultants for outreach, recreation and open space, coastal resources, and transportation planning.

## **II. HISTORY OF PLANNING IN YARMOUTH THE EARLY YEARS, 1926 - 1946**

From 1926 to 1946 Yarmouth had a Planning Board that acted as a long range planning agency and even proposed sections of a town master plan under the provisions of the original 1926 statewide planning enabling legislation. Reports in old Town Meeting minutes show this was a very forward looking group. During the 1930's much of their effort was directed towards getting a Zoning By-Law adopted. These efforts were repeatedly rejected.

### **ADOPTION**

Finally after years of attempts, Town Meeting adopted a Zoning By-Law and a simplified zoning map at the 1946 ATM. Our 50 year in-house history of numerous zoning amendments dates from that year.

### **INSTITUTION OF SUBDIVISION CONTROL**

In 1953 the Town adopted the subdivision control provisions of state law and in February of 1955 the first "Rules and Regulations for Subdivisions" were adopted by the Planning Board.

### **THE MASTER PLAN OF 1965**

The first attempt at a Comprehensive Plan resulted in a bitter disappointment! The Planning Board, with the financial assistance of the old Urban Planning Assistance Program (701), and using a consultant, had a master plan prepared. It was a very progressive document, probably too much so, for it was rejected by Town Meeting overwhelmingly and the Planning Board resigned en mass in frustration on the stage of Dennis-Yarmouth Regional High School.

### **ADVENT OF REGIONAL PLANNING**

Barnstable County first tried a cooperative regional planning approach when it had special enabling legislation passed in 1963 by the General Court for a regional planning organization. The Cape Cod Planning & Economic Development Commission, which was an advisory and coordinating inter-local effort was authorized. This was at approximately the same time several other regional planning agencies were formed in the Commonwealth, Central Massachusetts, Berkshire, Lower Pioneer Valley and Central Merrimack.

### **ADVENT OF THE CAPE COD COMMISSION**

After several years of discussion, the General Court passed, in late 1989, enabling legislation for a new regional land use and growth management agency, the Cape Cod Commission. This body had mandatory powers over review of large developments as well as its regional planning responsibilities. The Town of Yarmouth has received both substantial financial aid for its town plan and technical staff assistance on the Route 28 Corridor Study from the Cape Cod Commission in the past few years.

### **III. PRESENTING THE COMPREHENSIVE PLAN**

In preparing such a far-reaching and complicated plan as this Comprehensive Plan there must be an extensive and continuous outreach program. Status reports have already been given to three annual town meetings and at least 15 outreach meetings held. Still that is not really enough!

#### **PRESENTATION OF ELEMENTS**

The program has been divided into two phases of nine elements each, 18 in all. This particular document covers the first chapter. Basically the first five chapters do not need Town Meeting approval since they are mostly technical and supportive in nature. Those that contain policy proposals will be presented to Town Meeting for "endorsement" at the time they are completed.

#### **STUDY PLAN**

In addition to this report a "product" is being prepared that will be useful in talking with people, private and public groups. For lack of a better term it is called a "study plan", which is one that is a generalized land use and transportation map on one side of the plan and 4 or 5 pages of text on the other. It is hoped to get people talking about various land use options and road proposals using this document, and to help them understand the spatial distribution of uses in our town.

#### **THE SECOND PHASE OF THE COMPREHENSIVE PLAN**

While working on the first phase of the plan, a considerable amount of work has also been done on items in Phase II, such as on the environmental chapters, transportation, economic development. Others, such as infrastructure, and affordable housing will need considerable more work to be completed in Phase II. Once again, endorsement of the Phase II elements will be asked as they are completed. Some of the work will again be done by our planning staff, but consultants are hoped to be retained for transportation, economic development, and the infrastructure study at the very least.

#### **USE OF THE "LONG SUMMARY" APPROACH**

One of the problems in presenting a town's comprehensive plan is that it is written for three different groupings of people. Most persons want only the basics about the community and not a lot of detail, thus we have "executive summaries". The Study Plan and later the Composite Plan are also designed to fill that need. The Community Development Dept. gets regular requests from people who would like more than the basic technical information and so our documents, including this one, are in "long summary" form sufficient to that need and for town meeting use as well. Finally a very few want our detailed research materials. These materials are being kept in the Planning Division library.

## **COMPOSITE PLAN**

By the end of the Comprehensive Planning Program in late 1998 it is hoped element endorsements will have been received on all, or most, of the 18 elements so that one Composite Plan document can be put together with all the proposals coordinated. We hope to have the Plan then adopted by Town Meeting. This document is expected to consist of one large colored map with 16-24 pages of explanatory text on the other side. This document will be suitable for extensive distribution to the public.

## **IV. WHAT WILL ADOPTING THE COMPREHENSIVE PLAN REQUIRE THE TOWN TO DO?**

The answer is basically "nothing"! This document is being written as an advisory one! It is intended to provide a frame of reference for decision making. Perhaps its most important use will be to indicate to applicants of various kinds what the town wants to be, in what direction it wants change to take place, what uses and activities it would like to see located here. The Comprehensive Plan is not a static document and can be and should be regularly updated to meet changing conditions.

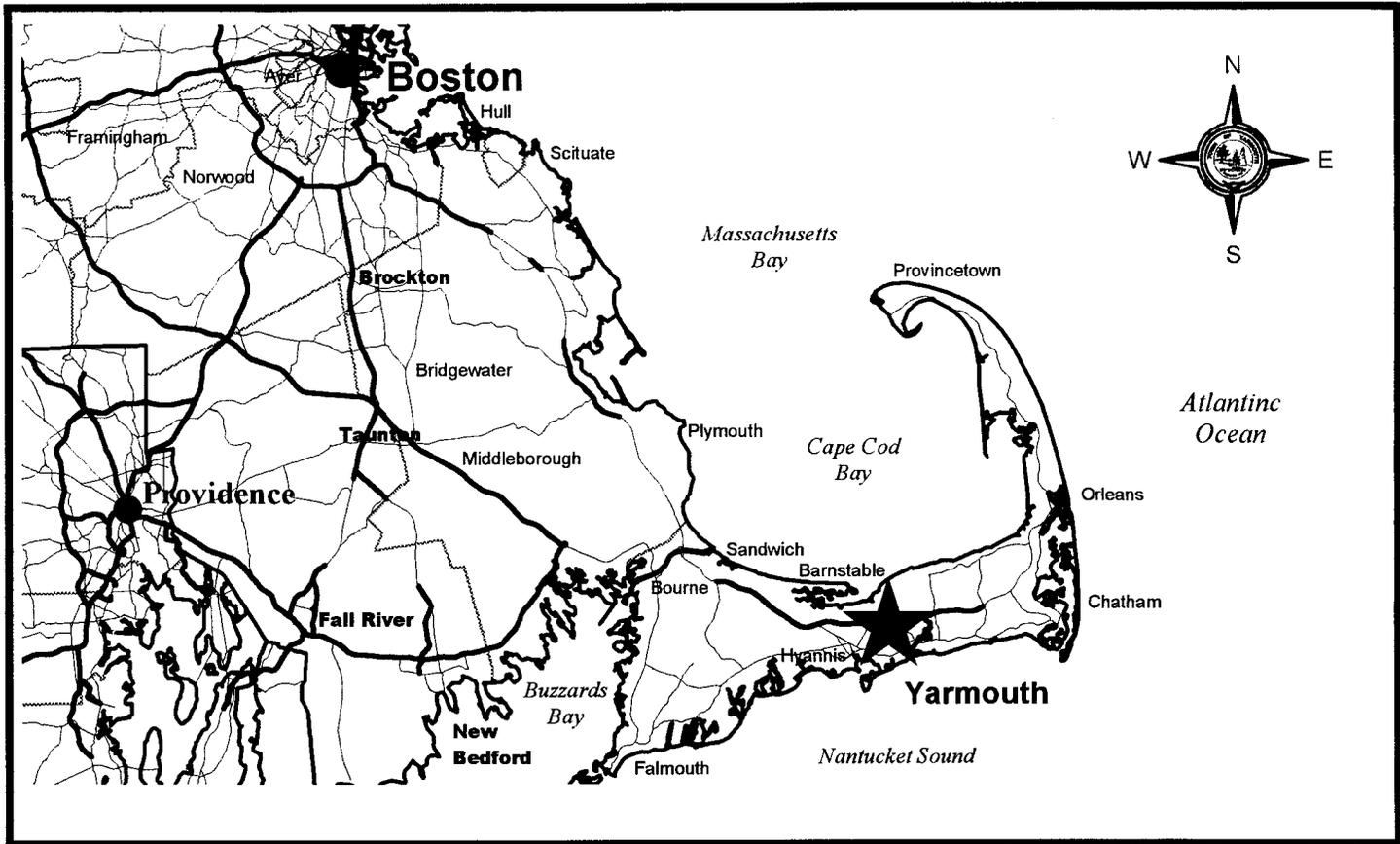
Going through the long-range planning process is useful since it causes communication to take place between government, its boards and citizens concerning their ideas, needs, and plans. It has already done this!

Once passed it will allow "development agreements" to be signed for the development of certain parcels or combinations over time. In an area such as in Yarmouth where redevelopment is a possibility this can be very useful. It will also be helpful in processing Developments of Regional Impact (DRI) in Yarmouth indicating what conditions should be met by those proposals.

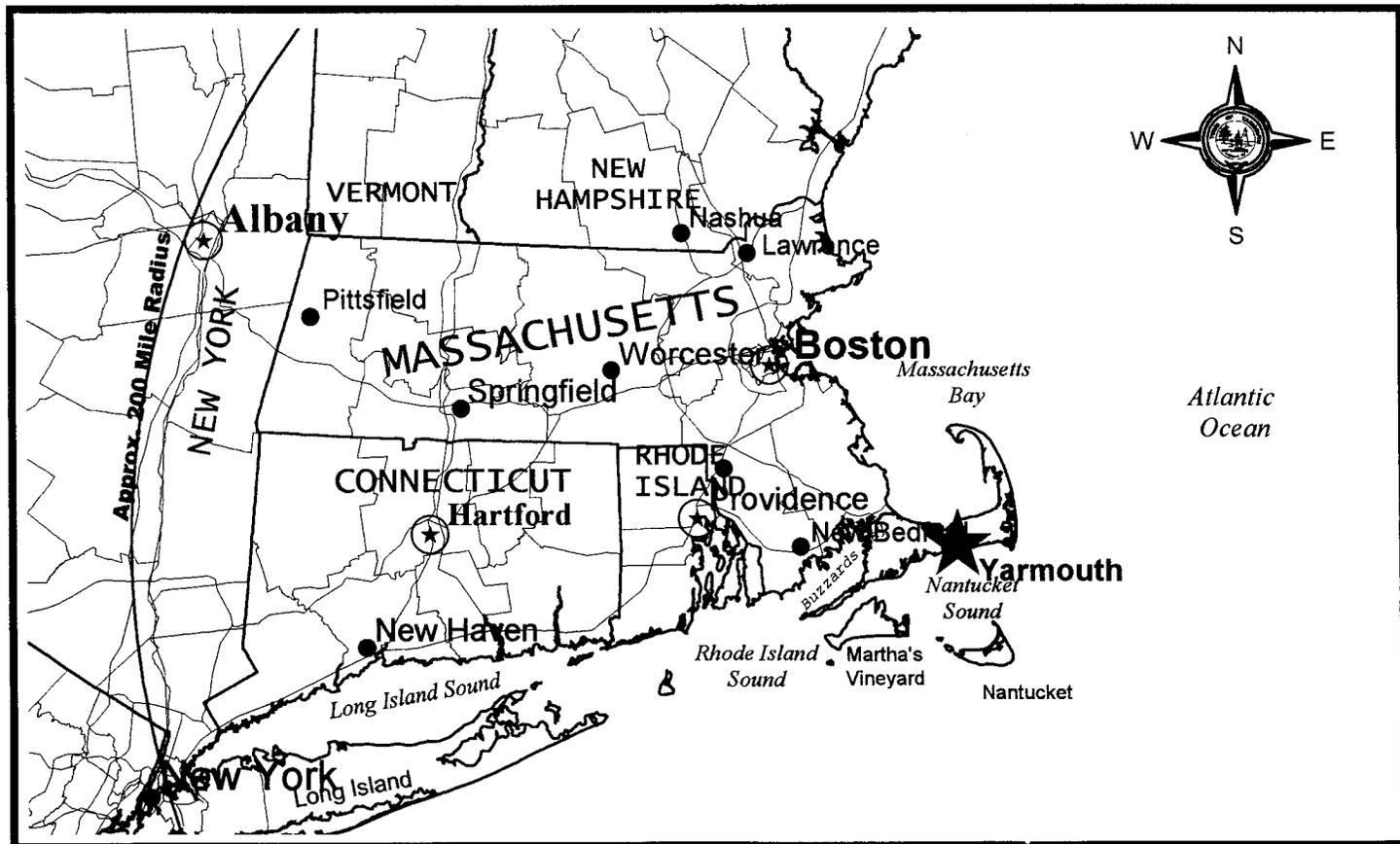
## **V. THE EFFECT OF AN "ECCENTRIC" REGIONAL LOCATION**

The importance of the Cape Cod location cannot be over-emphasized. Yarmouth extends out into the Atlantic Ocean some 22 miles on a spit of sand pushed up by the last glaciation 50-100,000 years ago. It is both the best and worst of locations. On the one hand it is remote for some things and yet very accessible for others. (The associated map indicates that situation - Map-1-1)

While the Cape was indeed an off-beat site for years, the construction of the new inter-state highway system, starting in 1955, made it highly accessible for tourists and retirees. The Cape has boomed as a result. It is a boom that has been achieved at a price, traffic jams, pollution, over-crowding, noise, etc. It is a location that still attracts high- tech trained business persons especially in telecommunications related businesses. However, that kind of business and industry, although dependent on rapid



Regional Location Map 1-2



Regional Location Map 1-1

communication, will cause further growth and stress. One of the main purposes of the Comprehensive Plan is to try to help deal with stresses related to change.

## **VI. ADVANTAGES OF A BAY VARIANT CLIMATE - AND SOME OF ITS DISADVANTAGES**

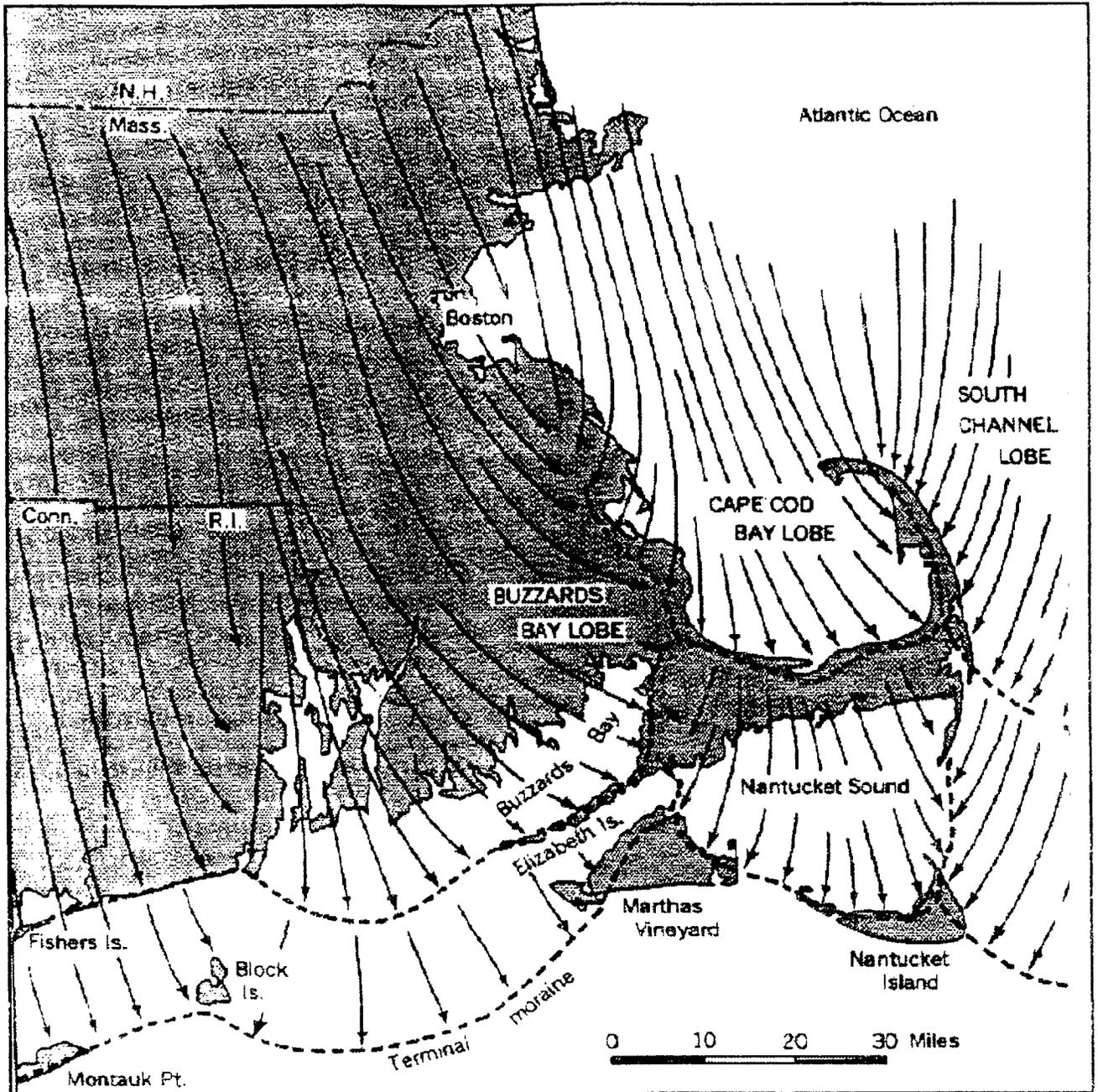
Yarmouth is located in southeastern Massachusetts on the biceps of Cape Cod. (see Map 1-2, previous page). The town encompasses approximately 27.1 square miles or 17,400 acres and is bounded on the north by Cape Cod Bay, on the west by the Town of Barnstable, on the south by Nantucket Sound, and on the east by the Town of Dennis. It is approximately 6.5 miles from Cape Cod Bay to Nantucket Sound. Also it is approximately 90 road miles from Boston and 270 miles from New York City. The primary highway to, and through, Yarmouth is U.S. Route 6, known as the Mid-Cape Highway. The town is also served by U.S. Route 6A on the north side, a scenic road, and State Route 28 on the south, primarily oriented to business, commuting and tourists traffic.

The marine location of Cape Cod is reflected almost daily in its "bay variant" climate. The annual rainfall range is strikingly similar to the "Nova Scotia Type" of climate, typical of the coastal areas along the east coast of the North American continent from Newfoundland to Long Island.

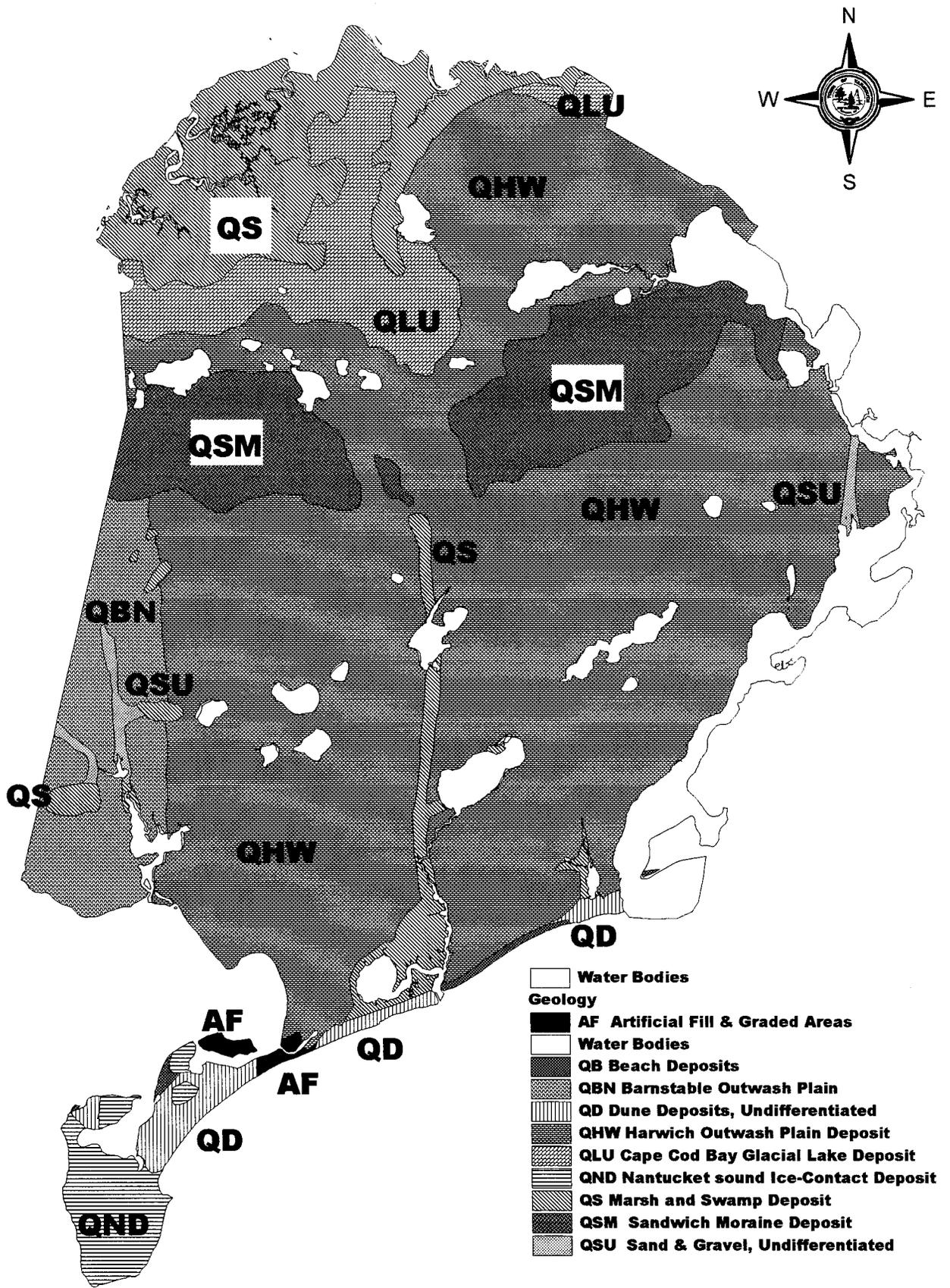
Thus there is more rain/snow in the winter half of the year. The monthly maximum is in January. Typically there is a very striking peculiarity, of a pronounced winter maximum of rainfall on the east coast of any continent in the temperate zone. The average precipitation in January is approximately 6 inches, while May, June, and July each average 3-3/4 inches each. The overall liquid precipitation is about 53 inches. One major reason for the relatively high precipitation level is the development of numerous coastal storms in the winter months, which develop off Cape Hatteras and move to the northeast.

The marine location also substantially affects temperatures. The cold Labrador Current flows southward from Baffins Bay and Newfoundland. Its Arctic waters and ice, much of which does not melt until it reaches the warm Gulf Stream are responsible for cooler summers on Cape Cod, especially along the north and east facing shores. The Gulf Stream which flows northeastward well off shore primarily affects the southerly facing shores. In July the mean temperature is about 65<sup>o</sup> F, here while that of Chicago is 74<sup>o</sup> F. In the winter this is reversed, with January mean's being 26° F and inland Chicago's being 23<sup>o</sup> F .

Other climatic features are the late arrival of spring-like temperatures, until May, because of the cooling effect of the water, and the extension of the autumn season to late October for the same reason. Parts of the Cape are particularly susceptible to sea-fog, especially along Buzzards Bay during a southwesterly flow of warm and humid



Map 1-3. This map of southeastern New England shows, by arrows, directions of ice flow in the Wisconsin Stage, as well as the two positions of ice standstill (dashed lines). Based on a map in Woodworth and Wigglesworth's *Geography and Geology of the Region including Cape Cod...*, 1934.



# TOWN OF YARMOUTH

## Surficial Geology



air. The Cape Cod area is also susceptible to tropical cyclones, hurricanes, which occasionally, move northeast from the Gulf of Mexico.

## **VII. A QUICK SUMMARY OF THE GEOLOGIC (PHYSIOGRAPHIC) HISTORY OF CAPE COD INCLUDING YARMOUTH**

The major features of the landscape of Yarmouth were formed during the retreat of the last great ice sheet about 25,000 - 50,000 years ago, (See Map 1-3) indicating the general direction of movement of the ice; Map 1-4 which follows that gives the surficial geology of the Town which was basically the result of that glaciation. It is perhaps interesting to note that the depth to bedrock here is 300-400 feet. There is none on the surface on Cape Cod!

The southern part of this town, from Nantucket Sound and northward to approximately to Route 6, is made up of an "outwash plain." (GHW Map 1-4) This consists of sand and some gravel that was deposited from streams flowing from the front of the melting glacier southward toward what is now Nantucket Sound. The plain's surface is quite smooth, but is pitted in places where blocks of ice became separated from the main ice mass, were buried in the glacial drift and later melted, leaving steep sided depressions called "kettle holes." The larger depressions which are below the level of the water table, now contain ponds which are indicated by outline but with no pattern on the map.

Immediately north of the outwash plain and extending to the string of ponds, commencing with Dennis Pond on the west and Follins Pond on the east, is a series of hills that comprise the eastern extension of the Sandwich moraine (QSM on map 1-4). Included in this area are Prospect Hill and German Hill. Slopes are irregular and many are steep. The land surface is made up of glacial till, material deposited more or less directly from the ice with little or no water sorting. Although predominantly sandy, the moraine's hills contain a wide variety of particle sizes from clay up to many large boulders, (glacial erratics) that are a noticeable feature of the landscape.

Great Island, jutting out into Nantucket Sound is a "kame" deposit of mostly medium to very coarse sand and gravel with a few thin, discontinuous layers of till (QND). Large to very large boulders are numerous. The "island" proper is connected to the "mainland" by undifferentiated dune deposits which form a barrier beach along Nantucket Sound on the front and with Lewis Bay to the rear side of the formation. (PD)

As the edge of the retreating glacier receded northward in Cape Cod Bay, the final major feature of the landscape was formed (QS and QLU on map 1-4). These are the glacial lake and lake bottom deposits along the northern part of the town fronting on Cape Cod Bay. The moraine and high land of the Cape acted as a giant earth dam, causing a temporary lake to form. One of the outlets for this lake was along a route from Whites Brook to Parkers River.

During the period which has followed glacial retreat, the sea has returned to its present level. Waves and currents have shaped and smoothed the shoreline; salt water invaded low areas and salt marshes, have formed. The bottoms of many of the kettle holes contain some shallow ponds as well, as they were close to the water table. In these, peat deposits have built up from accumulating organic matter in many cases.

The primary mineral resource in Yarmouth consists of sand and gravel used in construction. Large boulders found in the moraine may be used as rip-rap. Silt and clay from ancient lake bottoms have, historically, been used for making bricks. The thick coarse outwash plain deposits hold a large groundwater resource. Care must be taken to protect this resource from significant reductions in recharge, over-drawing of the aquifer and from contamination. The first two activities could cause a lowering of the water table. This would be reflected by a drying up of swamps and the small shallow ponds and a reduction in the size of many of the larger ponds. The only major significant geological hazard is the susceptibility of low-lying shore front areas to coastal flooding and wave erosion during storms.

## **VII. PECULIARITIES OF YARMOUTH SOILS - SAND EVERYWHERE!!!**

A computerized general soils map of Yarmouth will soon be available from Mass. GIS and through a cooperative effort with the U.S. D.A.'s Natural Resources Conservation service. However, following a brief summary of the characteristics of the existing soils. This section covers one of the subjects that should be expanded upon with the future updates of the Comprehensive Plan.

The **wet soils** (bog, marsh, swamp, land with high water table, etc.) are not safely habitable without off-site sewage treatment or considerable fill. Where peaty, fill may not be sufficient to warrant safe sewage leaching and, further, may not be structurally stable.

The **outwash sands** tend to be level, free from stone, easy to develop and build on and sufficiently porous for on-site sewage disposal.

The **glacial till** (in the terminal moraine) is porous and easy to build on except where excessively steep.

The **excessively drained soils** are easy to build on, but present a number of subtle problems. Generally, they are so dry that it is difficult to maintain good vegetative cover on them. Lawns tend to dry up much of the summer and trees and shrubs become stunted. This presents a special development problem, finding uses that will retain water; the following is needed:

- a) make use of existing, slowly and carefully grown vegetation;
- b) not expose existing and new vegetation to physical wear and tear from user traffic.

In addition, these soils, where sloping, present special problems of erosion and of rapid lateral movement of sewage through the ground and possible seepage at the base of hills.

In summary, the major development problems presented by soil in Yarmouth appear to be:

- 1) on wet soils, provision of adequate sewage disposal and structural stability of fill;
- 2) on excessively dry soils, protection of vegetation, both for aesthetics and erosion control, and provision of adequate sewage effluent flow containment.

Provision of adequate sewage in all potential problem areas can be insured, by large lot requirements and by rigid public health code requirements, or by a public sewage system.

Protection against erosion and aesthetic damages in excessively drained areas can also be insured by public health standards, and careful landscaping.

Stability of fill in low areas can be controlled through a broad program of regulation of building foundation stability through the building code, sewage leaching through the sanitary code, road base and drainage way side-slope stability through subdivision regulations and protection against flood damage through flood plain zoning.

## **IX. HISTORY OF YARMOUTH'S DEVELOPMENT**

Yarmouth was first settled by English families seeking an escape from the religious intolerance characteristic of 17th century England. After constructing a defense garrison, the settlers built their homes in a line, along a northern strip which was across from individual strips (furlongs) of farm land. The houses were built close together in order to provide protection from Indian attacks. In 1639, the first meetinghouse was built in Yarmouth. Symbolic of church and state, the meetinghouse was the first public building in the new settlement. The first Yarmouth settlement actually established the direction in which Yarmouth was to grow over the centuries. Land was continually subdivided into common (public) property and private farming lands. Indian lands were set aside for the waning tribes whose members were gradually decimated through contact with civilization and disease. The emphasis on behavior and religious character produced many a sterling representative and councilman.

During the 1700's Yarmouth people began to develop a stronger control over their environment. Having reaped the benefits of full harvests from the soil, they were quick to realize the potential that life upon the sea held. Whaling became a profitable enterprise during this century. In Swift's account of Olde Yarmouth there is recognition of the fact that whaling first brought Yarmouth people into contact with the people living on Martha's Vineyard. Many a small boat set out upon the open sea in search of the leviathan that was capable of producing massive supplies of oil for lamps in Yarmouth and other towns.

By the 1800's Yarmouth had switched its emphasis away from whaling towards full scale maritime endeavors that included fishing fleets and brigs, a large sailing vessel popular at this time. Four wharves were built along the Bass River. From here boats were built and launched. One particular type of ship sailed as far as the British West Indies.

From the Yarmouth wharf located on the north shore, a small fleet of boats called "packets" made daily excursion trips to Boston. Yarmouth resounded with the names of famous sea commanders, some of whom lived out their years in Yarmouth; others lost their lives at sea. For mainlanders living during the 1800's, Yarmouth was an exciting place. A number of merchants, doctors and lawyers established businesses and residences at this time. Credit is given to the industrious efforts of those men who established a number of small ocean-related industries. Salt works, magnesium and epsom salt factories thrived alongside cod and mackerel fisheries, agriculture and cranberry bogs. Though most of these industries provided short-lived means of support to the community, agriculture and cranberry bogs have continued into the 20th century.

The spread of growth in Yarmouth by 1900 was distinct in two main areas - YarmouthPort (northern Yarmouth) and Yarmouth (areas, west and south). Because YarmouthPort was the first area to be settled, it is richer in historic structures than are other parts of Yarmouth. By the early 1900's the town's population had increased to about 3,000. The first library in Yarmouth was constructed in 1840. In the 1800's it served a population of little more than 2,000 people. Today it is one of three serving a population of over 20,000. At the turn of the century, in 1900, Yarmouth still enjoyed a social structure based upon a closely knit neighborhood. By then, the Old Colony Railroad had all but replaced the schooners and packets as the direct means of transportation to Boston and the Lower Cape. The "furlongs", or farmstrips of the first settlement, had been subdivided. However, most families had a backyard garden. In and amongst the houses that lined the Old King's Highway were grocery stores. The Register, printing shops, a tailor's shop, a meat market, the bank and the Fireman's Insurance Company also located along the road.

Other than the increased spread of Yarmouth caused by the gradual population increase over time, change was minimal. The advent of the automobile brought about subtle but inevitable change. Slowly, the horse and buggy was literally driven off the roads.

The 1930's changed the face of Yarmouth! Quaint dirt roads were beginning to be overgrown and were eventually reclaimed by nature while major routes were covered by pavement. Avenues, which at one time had had room for groups of gathering people, became "streets" which serviced newcomers in search of pleasant views. The

wealthier of these people often bought homes for summer enjoyment. As the road system grew, so the town continued to grow. Men found jobs building homes in developments along the southern coastal areas, and before long, a large summertime population developed and the foundation for a tourist economy took shape. By the 1950's Yarmouth took on the character of a summer resort area, massive hotels attracted thousands of tourists yearly to the southern coast where gulf breezes and warm waters provide excellent swimming and sunning conditions.

Over the past 35 years many of those earlier tourists have purchased homes and retired in Yarmouth. This substantial growing, retirement community has produced other subtle changes in the town, not the least of which maybe a greater concern, or awareness, of the "quality of life" in Yarmouth and on the Cape.