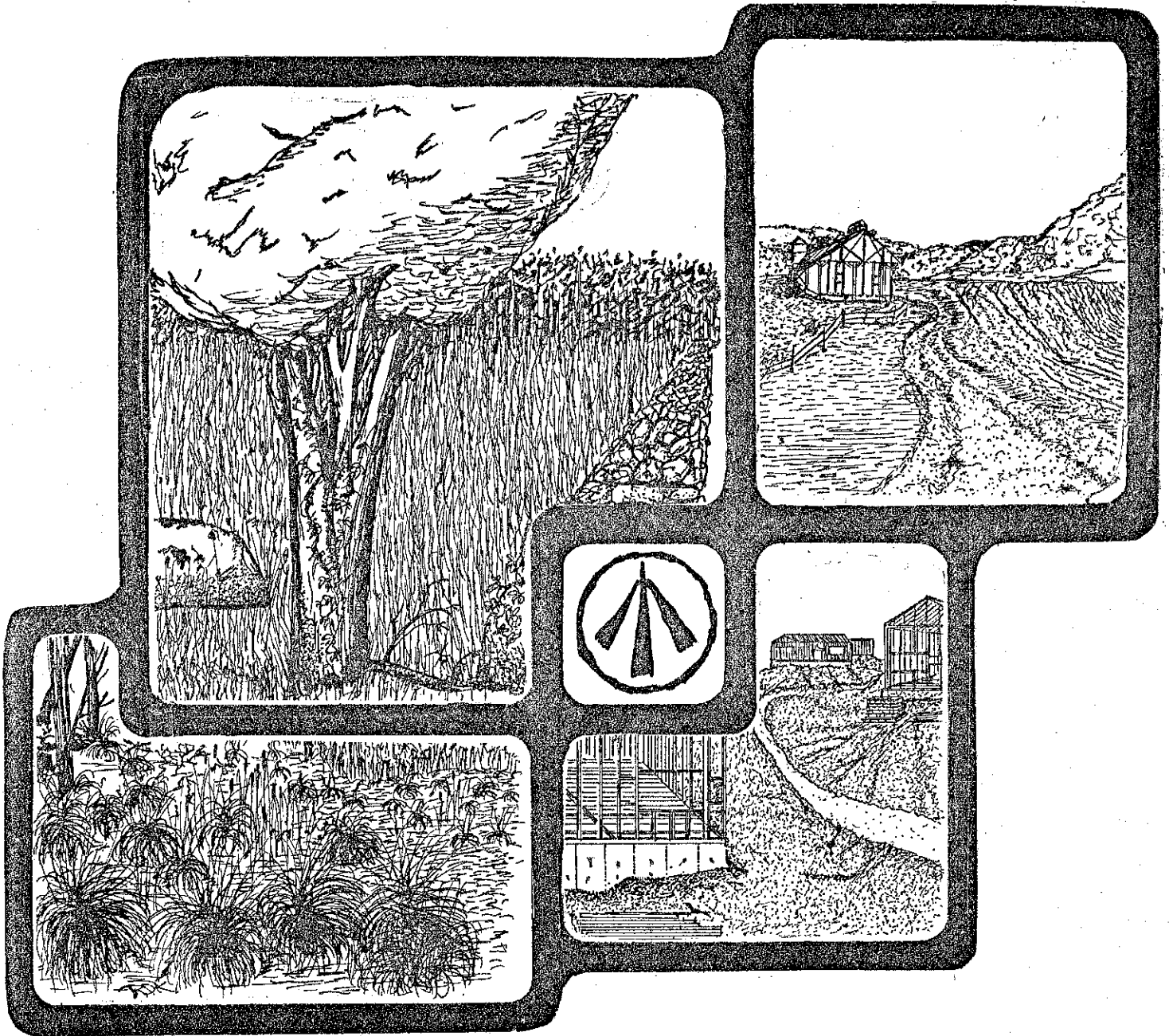


# ENVIRONMENTAL REVIEW TEAM REPORT



## THE BEACH PROPERTY NORTH HAVEN, CONNECTICUT

KING'S MARK  
RESOURCE CONSERVATION & DEVELOPMENT AREA

# KING'S MARK ENVIRONMENTAL REVIEW TEAM REPORT

ON

## THE BEACH PROPERTY NORTH HAVEN, CONNECTICUT



JULY 1980

King's Mark Resource Conservation and Development Area

Environmental Review Team

P. O. Box 30

Warren, Connecticut 06754

# ACKNOWLEDGMENTS

The King's Mark Environmental Review Team operates through the cooperative effort of a number of agencies and organizations including:

## Federal Agencies

U.S.D.A. SOIL CONSERVATION SERVICE

## State Agencies

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEPARTMENT OF HEALTH

DEPARTMENT OF TRANSPORTATION

UNIVERSITY OF CONNECTICUT COOPERATIVE EXTENSION SERVICE

## Local Groups and Agencies

LITCHFIELD COUNTY SOIL AND WATER CONSERVATION DISTRICT

NEW HAVEN COUNTY SOIL AND WATER CONSERVATION DISTRICT

HARTFORD COUNTY SOIL AND WATER CONSERVATION DISTRICT

FAIRFIELD COUNTY SOIL AND WATER CONSERVATION DISTRICT

NORTHWESTERN CONNECTICUT REGIONAL PLANNING AGENCY

VALLEY REGIONAL PLANNING AGENCY

LITCHFIELD HILLS REGIONAL PLANNING AGENCY

CENTRAL NAUGATUCK VALLEY REGIONAL PLANNING AGENCY

HOUSATONIC VALLEY COUNCIL OF ELECTED OFFICIALS

AMERICAN INDIAN ARCHAEOLOGICAL INSTITUTE

x x x x x x

## Funding Provided By

CONNECTICUT STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

Stanley J. Pac, Commissioner

## Policy Determined By

KING'S MARK RESOURCE CONSERVATION AND DEVELOPMENT AREA

Victor Allan, Chairman, Executive Committee

Stephen Driver, ERT Committee Chairman

Moses Taylor, Coordinator

## Staff Administration Provided By

NORTHWESTERN CONNECTICUT REGIONAL PLANNING AGENCY

Leicester H. Handsfield, Chairman

Charles A. Boster, Director

Richard Lynn, ERT Coordinator

Rebecca West, ERT Cartographer

Irene Nadig, Secretary

Patricia Dyer, Secretary

TABLE OF CONTENTS

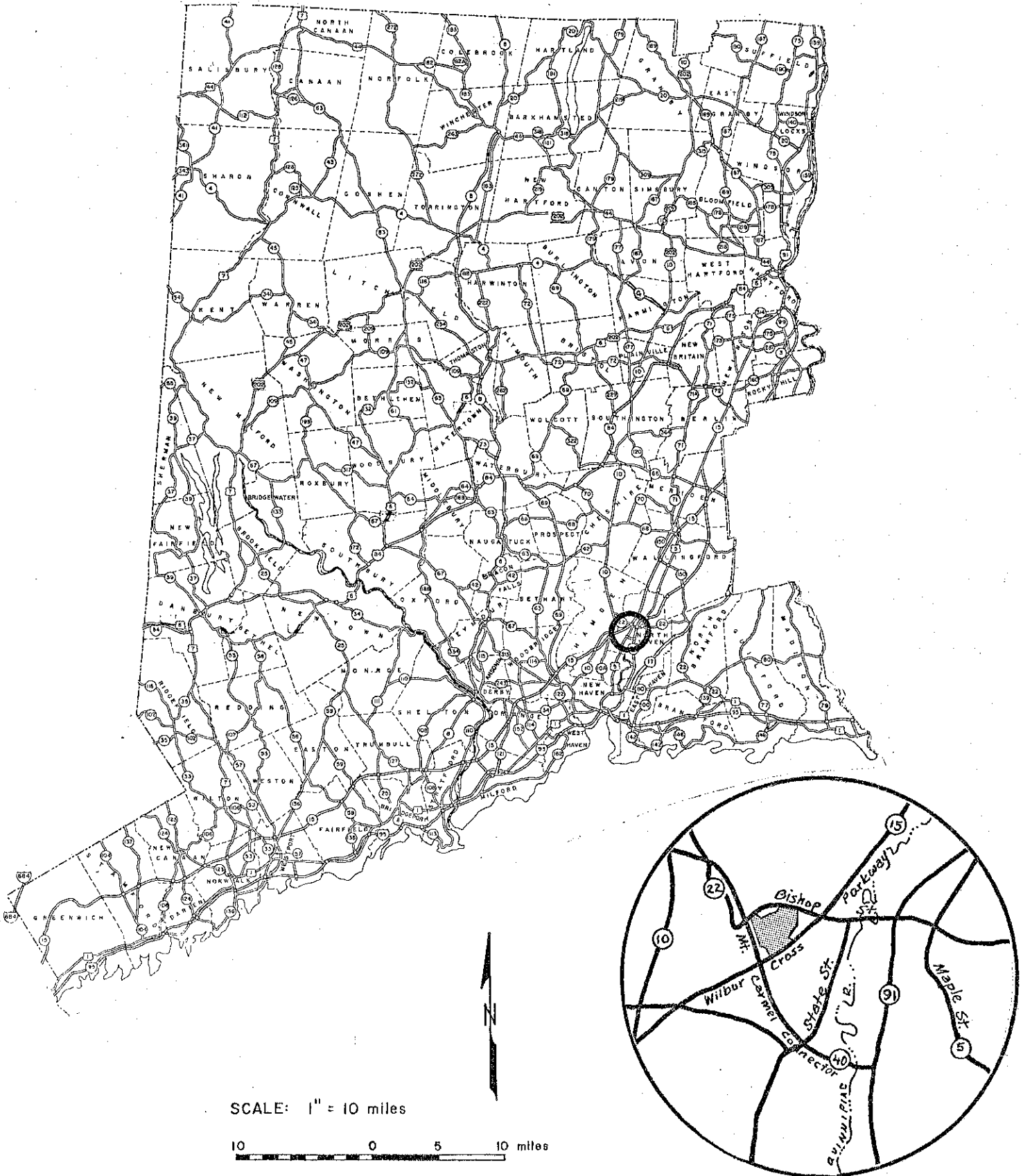
	<u>Page</u>
I. INTRODUCTION.....	1
II. DESCRIPTION OF THE PROPOSAL.....	2
III. DESCRIPTION OF THE ENVIRONMENT.....	2
A. Land Use Considerations.....	2
B. Topography.....	5
C. Geology.....	5
D. Soils.....	5
E. Climate.....	6
F. Water Resources.....	6
G. Vegetation.....	7
H. Wildlife.....	7
IV. ENVIRONMENTAL IMPACT OF THE PROPOSED ACTION AND MITIGATING MEASURES.....	11
A. Planning Considerations.....	11
B. Soils.....	11
C. Water Resources.....	11
D. Vegetation.....	12
E. Wildlife.....	12
V. IRRETRIEVABLE COMMITMENTS OF RESOURCES AND UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS.....	13
VI. SHORT TERM VS. LONG TERM VALUES.....	13
VII. ALTERNATIVES TO THE PROPOSED ACTION.....	14
VIII. CONSULTATION AND COORDINATION.....	14
IX. ADDITIONAL RECREATION CONSIDERATIONS.....	15
X. APPENDIX.....	17
Soils Map	
Soils Limitation Chart	
Soil Descriptions	

FIGURES

1	Potential Site Use.....	3
2	Topographic Map.....	4
3	Vegetation Type Map.....	8

# LOCATION OF STUDY SITE

## THE BEACH PROPERTY NORTH HAVEN, CONNECTICUT



ENVIRONMENTAL REVIEW TEAM REPORT  
ON THE BEACH PROPERTY  
NORTH HAVEN, CT.

I. INTRODUCTION

The Town of North Haven is applying for federal funds through the U.S.D.I. Heritage Conservation and Recreation Service to purchase a + 55 acre tract of land for open space and recreation purposes. The subject site, known as the Beach property, is located in the westcentral portion of town just north of the Wilbur Cross Parkway. Vehicular access to the property is available from the north via Bishop Street. The property is mostly open hayland with scattered patches of woodland. One seasonal watercourse traverses the site.

The North Haven Conservation Commission requested the assistance of the King's Mark Environmental Review Team to help the Town in applying for the federal funds. Specifically, the ERT was asked to prepare the "Environmental Assessment" portion of the grant application and also to comment on the general recreational potential of the land.

The Conservation Commission's request was considered and approved as an ERT project by the King's Mark RC&D Executive Committee. The ERT met and field reviewed the site on April 16, 1980. Team members for this review consisted of the following:

Frank Indorf.....	District Conservationist.....	U.S.D.A. Soil Conservation Service
Dag Pfeiffer.....	Conservation Commissioner.....	Town of North Haven
Ed Rizzotto.....	Recreation Specialist.....	State Dept. of Environmental Protection
Robert Rocks.....	Forester.....	State Dept. of Environmental Protection
Michael Zizka.....	Geohydrologist.....	State Dept. of Environmental Protection

Prior to the field review, each team member was provided with a summary of the proposed project, a checklist of concerns to address, a detailed soil survey map, a soils limitation chart and a topographic map. Following the field review, individual reports were prepared by each team member and forwarded to the ERT Coordinator for compilation and editing into this final report.

This report presents the team's findings and recommendations. The format for the report follows that suggested by H.C.R.S. guidelines. If any additional information is required, please contact Richard Lynn (868-7342), Environmental Review Team Coordinator, King's Mark RC&D Area, P.O. Box 30, Warren, Connecticut 06754.

## II. DESCRIPTION OF THE PROPOSAL

The Town of North Haven, Connecticut, through its Conservation Commission, proposes to acquire the Francis M. Beach property, located in the Town of North Haven, on 1975 Ridge Road.

It is the intention to secure this parcel of land for open space and to use it for recreation in a manner to allow the people of the town a place to rest, to walk, to hike, to ski, to play and to relax.

North Haven's long range open space plan is expressed in the booklet "The Preservation of It All". This booklet was planned, prepared and issued by the Conservation Commission in 1974 and at that time was distributed to all households in the town. The Beach property is mentioned in that booklet as one singled out for possible acquisition in the future. With a total acreage of about 55 acres, this is one of the few remaining large parcels in the town suitable for recreation. It also is one of the last remaining hayfields to be found in the area.

Located west of the town's center, it is easily accessible from all parts of town. Very likely it will attract the townspeople in the southwest and northwest sections of town. Except for a playing field and tennis courts at Ridge Road school, the townspeople in the southwestern part of town, a high density area have no nearby access to open space or parks. The acquisition of the Beach property will strike a balance in open space areas. The Chapman-Sinoway park is located in the north-central part of town, the Hansen Park is located due east of the Beach Property at the other end of town, and Peters Rock (under negotiation) is located to the southeast.

The Parks & Recreation Commission Chairman stated: "We feel this property would best be suited for a wide variety of winter sports and possibly a nine-hole golf course (par 3 type). The brook area could be enlarged to make a pond for skating and fishing."

No site design work for the property has yet been performed by the town. To aid in the preparation of this environmental review, a tentative site design layout has been prepared by the ERT and is presented in Figure 1. This site design was prepared based upon site review and the expressed interests of the town vis-a-vis use of the site. The site design presented in Figure 1 is of course subject to change.

## III. DESCRIPTION OF THE ENVIRONMENT

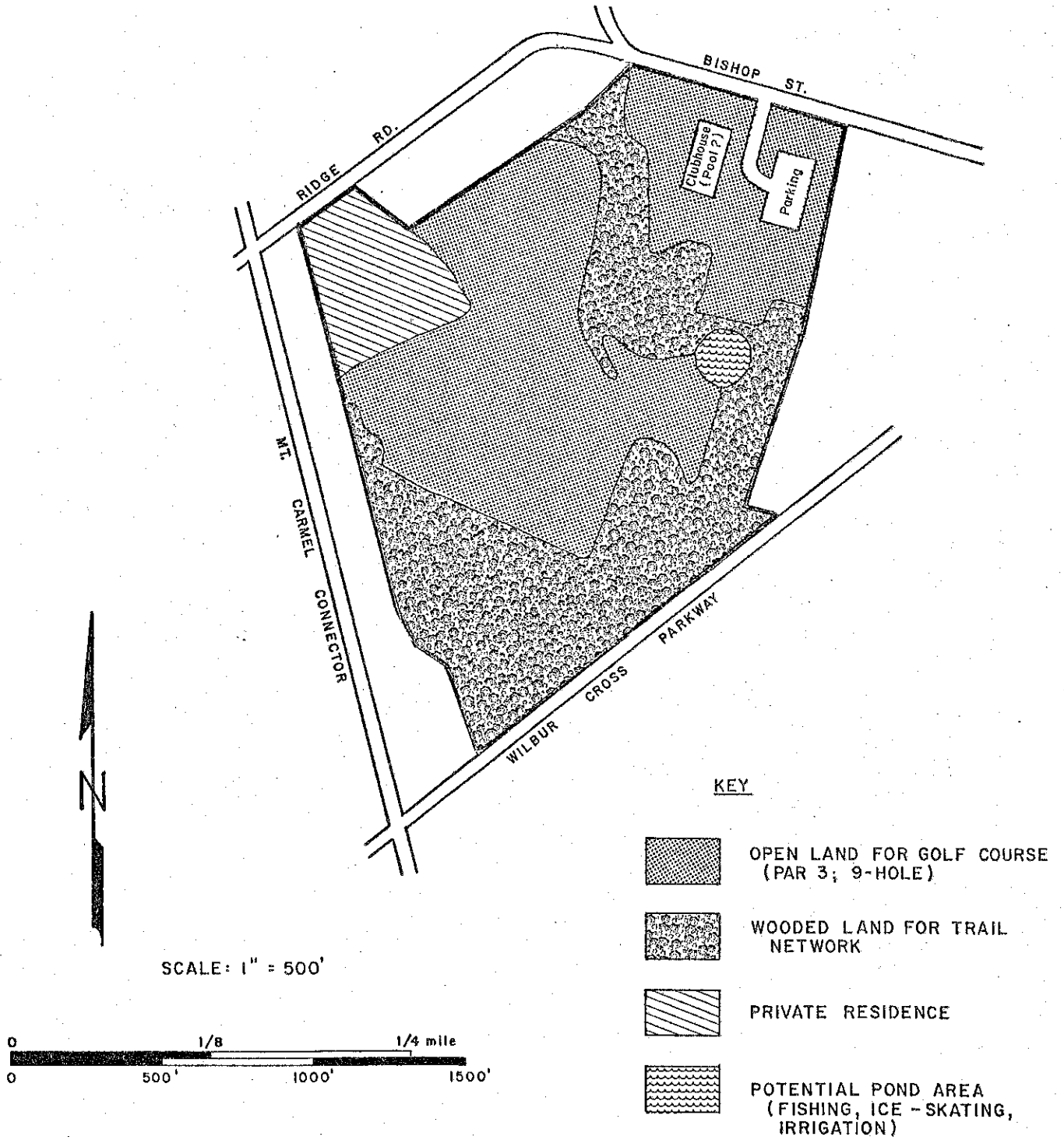
### A. Land Use Considerations

In the past the Beach property has been used as farmland. To this day it is being used as a hayfield.

The present landowner's house is located on the west side of the property with access along Ridge Road. The owner intends to keep this house along with about five acres of land fronting on Ridge Road (see Figure 1). To the east of the present landowners house, private homes extend to the Ridge Road/Bishop Street intersection. These homes abut the Beach property in the back (see Figure 2). On the north northeast side, the property fronts on Bishop Street. The east side of the property for a length of + 1237 feet again is private residential property. The south side faces the Wilbur Cross Parkway while the west side adjoins the Mt. Carmel Extension.

The surrounding area is zoned R20 ( $\frac{1}{2}$  acre lots) and is developed with private homes. There are no vacant lots or open spaces in the immediate vicinity. The

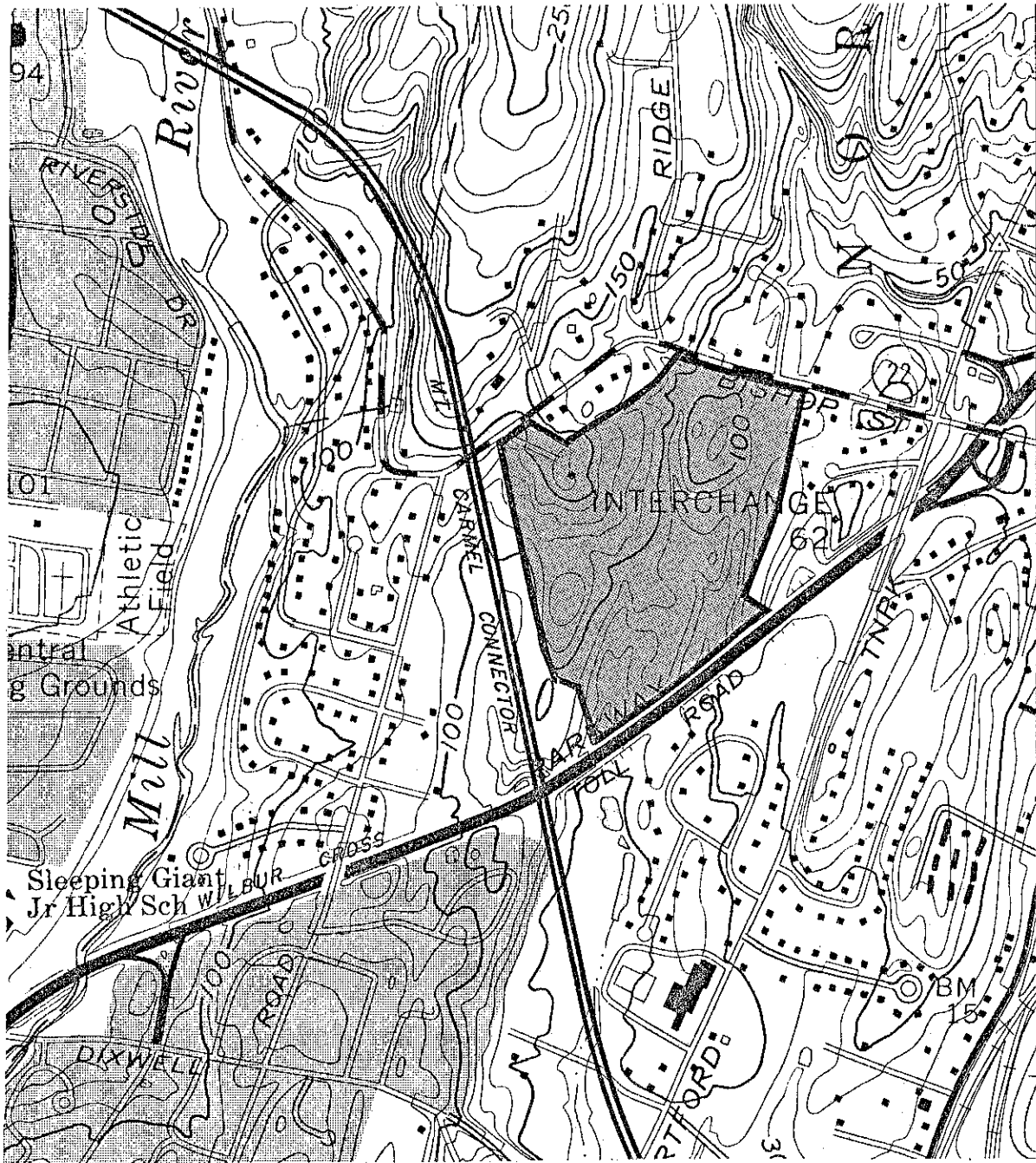
FIGURE I.  
**POTENTIAL SITE USE \***



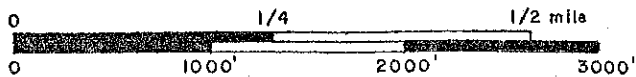
\* THIS SKETCH IS OFFERED AS ONE ALTERNATIVE FOR FUTURE SITE USE AND DEVELOPMENT (BASED UPON PERTINENT SITE REVIEW AND THE EXPRESSED INTERESTS OF THE TOWN REGARDING USE OF THE SITE)



FIGURE 2.  
TOPOGRAPHIC MAP



SCALE = 1" = 1000'



Beach property is easily accessible by car as it is located within a mile of two important traffic arteries, the Wilbur Cross Parkway and Interstate I-91. Ridge Road is the main north-south local access road while Rt. 22, running east-west converges into Ridge Road and Bishop Street in just this area.

Should this purchase for open space and recreation not materialize, this property will likely be sold to a private developer.

## B. Topography

The Beach property consists of rolling hills traversed by an intermittent stream. The slopes range from gentle to steep (see Figure 2). Steep slopes are found along the stream course and along the hills in the western section of the site. Elevations range from approximately 162 feet at the homesite to approximately 60 feet where the stream passes under the Wilbur Cross Parkway. No outcrops of bedrock break the undulating topography, although bedrock apparently is relatively close to the surface.

## C. Geology

The property is located within the Mount Carmel topographic quadrangle. The bedrock geology of the quadrangle was mapped by C. E. Fritts and published by the U.S. Geological Survey in 1963 as Map GQ-199. The surficial geology was mapped by R. F. Flint and published by the Connecticut Geological and Natural History Survey in 1962 as Quadrangle Report No. 12.

Bedrock underlying the site is part of the New Haven Arkose. This formation consists of interbedded conglomeratic arkose and arkosic siltstone. The term "conglomeratic arkose" implies a sandstone rich in feldspar and quartz, and containing many pebbles or larger particles. The term "arkosic siltstone" refers to a rock composed largely of silt-sized grains of feldspar and quartz. Although no bedrock outcrops were observed on the site, soils data and numerous small outcrops in the Bishop Street-Ridge Road area indicate that the rock is relatively close to the surface (within 5 feet) in much of the property.

The overburden covering bedrock on the site is till, a glacial sediment that was deposited directly from a former ice sheet. Till is composed of rock particles that were collected by the ice as it moved over preexisting bedrock surfaces and soils. Since the parent source of most of the till was the Triassic-Jurassic sandstones and basalts of the Connecticut Valley, the till is composed largely of sand-sized grains. Nevertheless, rock particles of all sizes are contained within the sediment, reflecting the indiscriminate collection and depositional processes of the glacier.

## D. Soils

A soils map of the project area is presented in the Appendix of this report. Also included is a soils limitation chart which identifies limiting factors for various land uses on individual soil types. Following the soils limitation chart is a brief description of each of the soil types found on the property.

In all, six soil types have been identified on the property. The majority of the site consists of Yalesville fine sandy loam soils of slight to moderate slope. Except where topographic relief and shallow to bedrock conditions present problems, these soils have good potential for recreational development.

The eastcentral portion of the property consists of a band of steeply sloping Holyoke-Cheshire soils. Due to steep slopes and shallow to bedrock conditions, this soil area will be difficult to develop for recreational purposes.

The westcentral portion of the property contains a band of moderately sloping Holyoke silt loam soil. Although not as steep as the Holyoke-Cheshire soil area, this area may present problems for recreational development due to topographic relief and shallow to bedrock conditions.

Two small fingers of Ellington silt loam soils are present in the southern portion of the site. These soils are generally favorable for recreational development except where wetness is a problem.

To conclude, the soils of this site are generally favorable for the intended use. Steep slopes and shallow to bedrock conditions may present obstacles in certain areas, but these factors are not expected to present formidable problems with careful site design.

#### E. Climate

According to the publication "Rare and Endangered Species of Connecticut and their Habitats" by Dowhan and Craig (the Natural Resources Center, Ct. DEP, 1976), the Beach property is located in the "western coastal" ecoregion. The climate characteristics of this ecoregion, as described in the Dowhan and Craig report, are as follows:

"The mean annual temperature of the region is about 50.5°F. The average winter temperature is 31°F.; the coldest month has a monthly mean minimum of about 23°F.; and the mean annual minimum temperature is 5°F. The average seasonal snowfall accumulation is generally less than 30 inches, the lowest in the State. The frost-free season averages about 180 days. The average summer temperature is about 71°F.; the warmest month has a monthly mean maximum temperature of 83°F. Annual precipitation is about 43 inches."

#### F. Water Resources

The intermittent stream passing through the site is fed by a drainage area of about 100 acres up to the point where it passes under the Wilbur Cross Parkway. The stream flows most of the year, but dries up occasionally under extended dry summer conditions. According to statistical data contained in Connecticut Water Resources Bulletin No. 27, the mean annual flow in the stream is probably about 170,000 gallons per day. On an average of once every two years, the stream may go through a period of 30 consecutive days in which the flow does not exceed 3120 gallons per day. Part of the reason for these low-flow conditions is that the drainage area of the stream consists virtually entirely of till-covered uplands. Till has a relatively poor capacity to absorb and store precipitation and therefore cannot effectively sustain stream flows during dry periods by slow release of groundwater.

The principal aquifer associated with the site is the underlying sedimentary bedrock. This aquifer is generally suitable for small or moderate water supplies, but is unlikely to generate large yields for public purposes. Connecticut Water Resources Bulletin No. 27 indicates that of 925 wells which were surveyed in the Quinnipiac River basin and which tapped sedimentary rock, 95 percent

yielded 2 gallons per minute or more, 50 percent yielded 10 gpm or more, and 5 percent yielded 40 gpm or more. This may be compared to the yields from the thick gravelly and sandy deposits along many of the basin's larger rivers. Often these deposits will allow sustainable yields exceeding 100 gpm. In light of the existing public water facilities available to the site and the probable inability of the bedrock to supply very large yields, the bedrock aquifer at this site may not be tapped in the future. If it is tapped, the water quality may be expected to be generally good. There is, however, an about-even chance that dissolving carbonate minerals within the rock will make the water "hard".

#### G. Vegetation

The Beach property may be divided into five vegetation types. These include 30 acres of open fields, 16 acres of mixed hardwoods, 7 acres of streambelt/hardwood swamp and 1 acre of open swamp (see Vegetation type map and Vegetation type description chart).

At the time of the field investigation there were no unusual or unique species observed. Further investigation of herbaceous species during different seasons may be desirable, especially if some form of nature interpretive trail system is developed through the wooded areas.

#### H. Wildlife

The Beach property offers three major types of wildlife habitat; these include openland habitat, woodland habitat and wetland habitat. For a description of the vegetation present and location of habitat types, please see the vegetation type map and description chart.

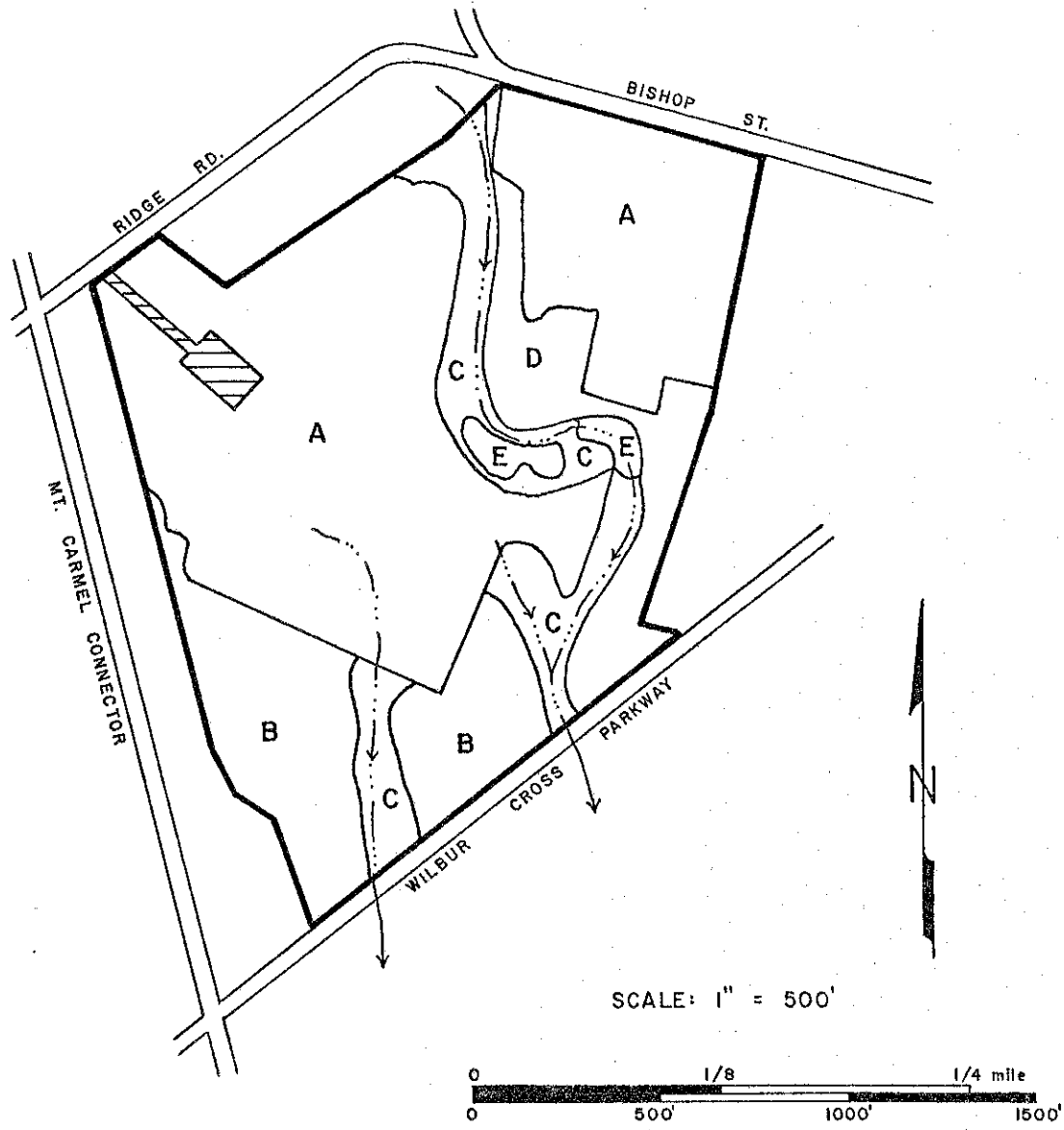
The openland habitat (open field) which dominates this property, is presently utilized by meadow voles, field mice and many species of songbirds. Typically this habitat is also utilized by raccoons, skunks, opossums and wide ranging birds of prey including hawks and owls.

The woodland habitat (mixed hardwood) present on this property provides food and cover which is utilized by grey squirrel and many non-game species including songbirds, small rodents, reptiles and amphibians. Many of the animals found in the openland habitat will use this area and the shrubby edges for cover and breeding sites.

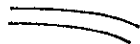

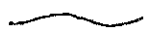


The wetland habitat on this tract includes the streambelt itself, the hardwood swamp, and the open swamp. Many species of mammals, birds, reptiles and amphibians use the food, cover, resting sites and breeding sites these areas offer. The small open swamp provides excellent habitat for red winged blackbirds.

No rare or endangered species, or unique habitat types were observed on this property.

FIGURE 3.  
VEGETATION TYPE MAP



LEGEND

-  ROAD
-  PROPERTY BOUNDARY
-  VEGETATION STAND TYPE BOUNDARY
-  STREAM
-  RESIDENTIAL AREA 1-ACRE

- TYPE A Open fields, 30 acres.
- TYPE B Mixed hardwoods, 10 acres, fully stocked, pole to sawtimber.
- TYPE C Streambelt/hardwood swamp, 7 acres, variable stocking, pole size.
- TYPE D Mixed hardwoods, 6 acres, fully stocked, two-aged: sapling and sawtimber size.
- TYPE E Open swamp, 1 acre.

VEGETATION TYPE DESCRIPTIONS

STAND TYPE	ACRES	MAIN STAND SIZE CLASS*	STOCKING LEVEL	MAIN STAND QUALITY	MAJOR COMPONENTS OF: OVERSTORY	UNDERSTORY	GROUND COVER
A. Open Fields	30	--	--	--	--	--	Grasses, cinquefoil, and wild onions, with golden rod, raspberry and poison ivy around the edges. As-sorted other weed and wild-flower species were also present.
B. Mixed Hardwoods	10	Pole with occasional saw-timber size trees.	Fully-stocked.	Good. Trees are healthy and grow-vigorously.	Red oak, white oak, sugar maple, dogwood, witch-American beech and scattered red maple. 1/3 acre of pole size poor quality red pine is also present in this stand.	Gray stemmed maple leaved viburnum and occasional black cherry and eastern red cedar seedlings.	Club moss, grasses and Canada May-flower.
C. Streambelt/ Hardwood Swamp	7	Pole size with occasional saw-timber size trees	Variable from under stocked to fully-stocked.	Poor. Trees have considerable damage, broken small tops and rot.	Red maple, white ash, swamp oak, and elm with scattered sycamore.	white Spicebush and white maple leaved American viburnum with autumn olive; red osier dog-wood, smooth sumac and arrowwood be-coming dense along this area's inter-face with the open field.	Skunk cabbage, wild onions, trout lilly and poison ivy.

VEGETATION TYPE DESCRIPTIONS

STAND TYPE	ACRES	MAIN STAND SIZE CLASS*	STOCKING LEVEL	MAIN STAND QUALITY	MAJOR COMPONENTS OF: OVERSTORY	UNDERSTORY	GROUND COVER
D. Mixed Hardwoods	6	Two-aged sapling and sawtimber size	Fully-stocked.	Medium. Some of the largest trees are of poor qual- ity with large dead branches.	Red oak, white oak, American beech and occa- sional sugar maple and black cherry.	Flowering dog- wood, blue- beech, witch- hazel, sassafras and hophornbeam, along with hard- wood tree seed- lings, raspberry and multiflora rose.	Club moss, Canada May- flower and poison ivy.
E. Open Swamp	1					Spice bush, swamp rose and arrowwood.	Tussock sedge, skunk cabbage, marsh mari- gold, sensitive fern and wild onion.

\* Seedling size - trees less than 1 inch in diameter at 4 1/2 feet about the ground (d.b.h.)  
 Sapling size - trees 1 to 5 inches in d.b.h.  
 Pole size - trees 5 to 11 inches in d.b.h.  
 Sawtimber size - trees 11 inches and greater in d.b.h.

#### IV. ENVIRONMENTAL IMPACT OF THE PROPOSED ACTION AND MITIGATING MEASURES

##### A. Planning Considerations

Based on information received from the North Haven Historical Society, the Beach property does not affect a site listed on the National Register of Historical places.

The proposed acquisition will provide an amenity to the people living in North Haven. It will remain a patch of green in a densely populated and developed area. While this land is not now accessible to the population, it will become so upon purchase. This is very important, as it is anticipated that people will be looking for closer-to-home recreational activities and facilities in times to come.

The effect of the acquisition on socio-economic conditions should be positive by preserving the environment and preventing overcrowding. No change in the character of the area is foreseen and no displacement of people is expected. The area and surroundings are not now zoned commercial or industrial, nor is such re-zoning expected. The area is very much settled as a residential area.

Some generation of solid wastes is to be expected with implementation of the project. Disposition of such wastes will be made through the town's sanitation department to the sanitary land fill site.

Due to the excellent accessibility to two major highways (I-91 and Wilbur Cross Parkway) as well as major local roads (Rt. 22 and Ridge Road) any additional traffic generated through the use of this property can be easily absorbed by the present road system. A parking facility would have to be built off the Bishop Street access or frontage to accommodate visitors to the site.

Energy consumption and noise level both would be affected only by the increased local traffic generated by park visitors.

Upon acquisition by the town, the management of the property would be turned over to the town's Parks & Recreation Department. They would then become responsible for the administration and management of the property. North Haven has a full-time Parks & Recreation Director who supervises the day-to-day activities and operation of the town parks.

##### B. Soils

The soils of this site are generally suitable for the intended recreational use and development. Implementation of the proposed project is not expected to significantly impact soil resources if cutting and filling is not extensive. A limited amount of erosion and sedimentation can be expected with recreational facility development, but this can be kept to a minimum by simple conservation measures. The New Haven County Conservation District is available to assist in the preparation and review of erosion and sediment control plans.

##### C. Water Resources

The only recreation-related use that is likely to directly affect the site's water resources is the proposed creation of a pond. Figure 1 of this report identifies an area where the construction of a one to two acre pond appears feasible. Such a pond could be used for skating in the winter and possibly irrigation in the summer (particularly if the nine-hole golf course is established). Not



enough flow exists to sustain swimming in such a pond for more than a handful of people per day. It is unlikely that the creation of a pond would have a major effect on surface water quality. Some concentration of calcium and magnesium based minerals may occur during dry periods in the summer, but this would not affect the projected uses. No effects on the quantity or quality of groundwater are anticipated. It would be desirable to maintain a vegetated buffer strip of + 25 feet around any constructed pond.

#### D. Vegetation

The impact of the proposed development of the golf course, club house and parking area on the forest vegetation will be minimal. No forested areas are expected to be cleared for development of this portion of the proposal.

Removal of a portion of the streambelt/hardwood swamp and open swamp vegetation will be necessary for the development of the skating pond. The extent of the vegetation losses will depend on the size of the clearing made for the pond. No commercially valuable species will be lost as a result of this development.

It should be noted, however, that a permanent raising of the water table within the streambelt area may affect vegetation beyond the area of the pond itself. This change in the water table may drown the roots of the trees and shrubs causing their eventual mortality. In light of this, the proposed pond should be constructed in such a way that the water table in the adjacent area is altered as little as possible. This will help to protect the trees and shrubs which are left in the area from drowning.

If nature trails are eventually developed through vegetation type Stand D, the large dead branches on the sawtimber size trees should be removed. This pruning will reduce the hazard of injury to area users by falling branches.

The ability of the forested areas to act as vision and sound barriers between the proposed golf course and the State highways could be enhanced by underplanting with conifers. Hemlock could be underplanted at approximately 100 per acre (20' x 20'). This planting would also provide wildlife with improved cover.

At the present time the trees in both mixed hardwood stands are growing vigorously and are healthy, except for some of the largest trees, which are declining in health. These trees could be removed to reduce potential hazards and provide fuelwood.

#### E. Wildlife

There will be little displacement of the wildlife species which are presently utilizing this area with implementation of the proposed project. This is primarily due to the fact that the change from present land uses to sod for the golf course is not radical.

The eventual use of pesticides and intensive grooming of the sod will, however, probably result in a lowering of the rodent population in this area. This may in turn lower the number of hawks and owls which hunt this area.

The proposed enlargement of the brook to make a pond for skating and fishing may provide limited habitat for puddle ducks and perhaps muskrat.

Planting fruiting shrubs or trees (such as crabapple, silky dogwood and autumn olive) along the border between the proposed golf course and mixed hardwood stands would provide many species of wildlife with food and cover. An excellent shrubby edge could be established by planting several staggered rows of these species approximately six feet apart. Additional plantings of hemlock and eastern white pine in small patches or along the mixed hardwood stands, 8 to 10 feet apart, would provide excellent winter cover for wildlife. These evergreens should be planted where they will not shade out other wildlife shrub plantings. Winter cover may also be improved by underplanting the mixed hardwoods with hemlock space 20 feet apart or approximately 100 per acre.

## V. IRRETRIEVABLE COMMITMENTS OF RESOURCES AND UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS

The proposed project will not result in the irretrievable commitment of any significant natural or cultural resource. Practically speaking, however, the project will remove about 40 acres of farm land from production. This is significant in light of Connecticut's declining farm land resource and a state goal "to maintain and increase a long-term, in-state food producing capacity through conservation and preservation of prime agricultural lands..." (State of Connecticut Conservation and Development Policies Plan, 1979-1982).

There will be a few unavoidable adverse environmental effects from the project, but these are not judged to be of major concern. These adverse effects include:

. limited vegetation loss. The development of a trail network in the forested portion of the property will result in the loss of some vegetation. The loss is judged to be relatively insignificant when compared to the total enjoyment gained by the experience offered. The same can be said for any clearing required for pond construction.

. limited wildlife impact. The intensive maintenance required for golf courses usually involves utilization of pesticides to control weed and rodent problems. As rodent populations diminish, those species which rely on rodents as a main source of food will be forced to seek alternative hunting and feeding areas. If the proposed golf course is developed, this dispersment is very likely.

. limited erosion and sedimentation. Construction of recreational facilities on this property will likely result in a certain amount of soil erosion. This impact can be kept to a minimum if facilities are carefully designed, constructed, and maintained. The New Haven County Soil and Water Conservation District is available to assist in the preparation of erosion and sediment control plans.

. limited air quality and noise impact. Implementation of the project will increase automobile traffic in the area; this will tend to degrade air quality in the area to a limited extent. Increased use of the area will also lead to increased noise levels. Neither of these impacts are expected to be significant however.

## VI. SHORT TERM VS. LONG TERM VALUES

The fairly recent acquisitions of town open space, namely the Chapman/Sinoway and the Hansen Parks, have clearly shown beneficial effects as townspeople have used these areas for enjoyment and recreation. As the population of North Haven

increases, so too will the demand for recreation and open space. The Beach property can offer a recreational opportunity close to home and yet far enough away and different to be of significant value and consequence. The benefits of this proposal would therefore be oriented towards both the short-term and the long-term.

Should the town not acquire the Beach property, the land will undoubtedly become another residential area. The recreation and open space potential of this property would then be lost forever.

## VII. ALTERNATIVES TO THE PROPOSED ACTION

One alternative to the proposed action would be to see the property remain open farmland. This perhaps would be the most desirable use of the land since farmland is very rapidly being lost to development all over the State. However, due to economic realities and the pressure for urban development, it is highly unlikely that this property would be able to remain farmland for a long time. The option of doing nothing will most likely result in the property eventually being sold for residential use in which case the open space and recreational value for the general public will be lost.

If this area is to be preserved as an open space/recreation area for public use it appears that direct acquisition by the town is the only alternative. Once acquired, the opportunities for both active and passive recreational development on this property are endless.

## VIII. CONSULTATION AND COORDINATION

The people of North Haven are acquainted with the town's long range open space acquisition plan. This was accomplished when the Conservation Commission prepared and published a long range development plan called "THE PRESERVATION OF IT ALL". This booklet was distributed to all households in the town upon publication in 1974.

The following town agencies have been consulted regarding the proposed acquisition of the Beach Property:

Board of Selectmen  
Parks & Recreation  
Planning & Zoning

The Parks and Recreation Commission has studied the proposed acquisition, walked the land and confirmed its interest in this parcel for town recreational use.

The Board of Selectmen, the Parks and Recreation Commission and the Conservation Commission have all passed resolutions favorable to the acquisition plan.

Up to the time of publication of this report, the Planning and Zoning Commission has not signed the resolution due to the lack of a comprehensive town development plan. The Commission states that they are in the process of hiring a consultant and wish to have his input before acting on the resolution.

There have been several write-ups in the local papers informing the public about the intentions of the town to acquire the Beach property. To the Conservation Commission's knowledge, no objections to the acquisition have been raised from people living in the Beach property section of town nor from other town residents.

## IX. ADDITIONAL RECREATION CONSIDERATIONS

This portion of the ERT report, although not required under HCRS guidelines, is offered to provide some guidance on future recreational use and development of the site.

At the time of the ERT's field review, there was no town-wide consensus on use of the Beach property following acquisition. A number of desirable uses were mentioned by townspeople, however, at the field review, and based upon this, Figure 3 was prepared. The following comments refer, by and large, to that site design.

As previously discussed, the Beach property is characterized primarily by open and rolling terrain. From a "within-property" standpoint, the site is very attractive. Hedgerows offer visual diversity and the trees along the western and southern boundaries screen the undesirable sights and sounds of highway traffic. The site is easily accessible and the proposed point of ingress and egress off Bishop Street has good sight lines and grades.

The site is presently well-suited for passive recreation and very few improvements would be needed. Ski-touring could be conducted with little or no development. Hiking could be enhanced through clearing some trails in the southern portions of the property and constructing a crossing of the stream on-site. Picnicking facilities could be easily constructed in selected portions of the site. It would be desirable to create a small off-street parking area for the site, even if activities are restricted to passive recreation.

With regard to active recreational development, the site does seem well-suited for a small "par three" type golf course. Prior to developing detailed plans for such a facility, it would be desirable for the town to conduct a study (perhaps a contracted market study) to measure demand for such a facility. This study should evaluate both local interest and alternative golfing facilities in the regional area. The demand found should be considered in light of development and operating costs. At a minimum, ancillary facilities to the golf course should include an irrigation system, parking lot, a maintenance shed, and a clubhouse. Drinking water and sanitary facilities will also be necessary. The town may also wish to consider the construction of shower/locker rooms, a small meeting and snack area, and an office.

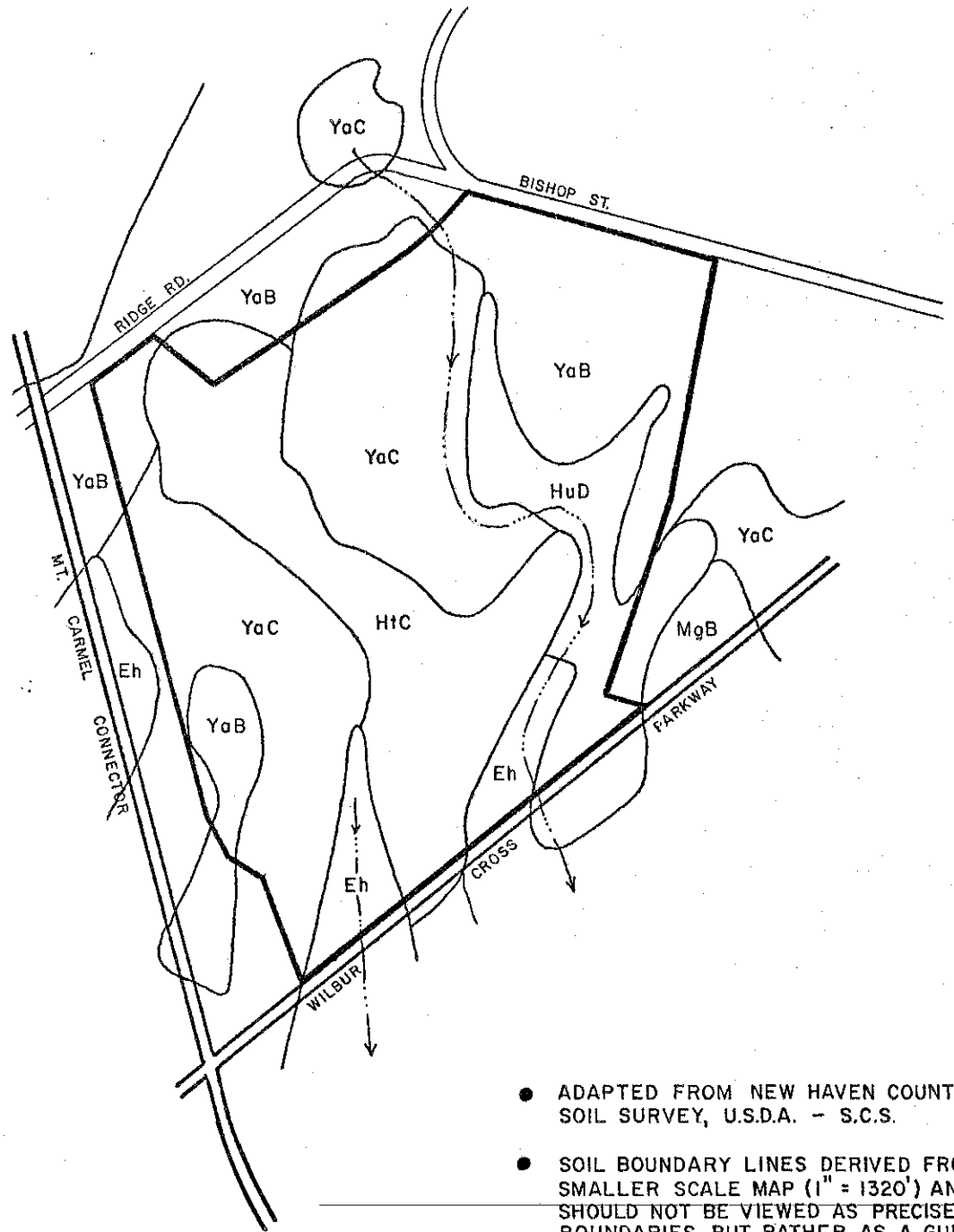
Maintenance and operation activities required for a golf course will also be more intensive than at a typical park property and these costs should also be considered. The initial outlay for specialized turf maintenance equipment, in particular, will be high. It should be noted, however, that many municipal golf courses, given an appropriate fee structure, are able to derive an income that often equals or exceeds annual operating costs.

Although a pond suitable for fishing, ice skating, and irrigation can be constructed on the site, it is highly unlikely that such a pond would be suitable for swimming. In light of this, the town may wish to consider constructing an artificial pool at this site. This alternative would seem to have merit, given the current and anticipated town population, population density, and the absence of a municipal swimming facility at this time. A municipal swimming pool would complement the other uses of the site and could also take advantage of the support facilities that would be desirable for golf (parking lot, clubhouse, sanitary facilities, etc.).

\* \* \* \* \*

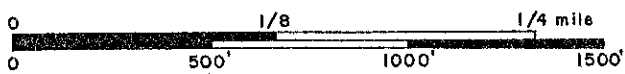
**APPENDIX**

# SOILS MAP



- ADAPTED FROM NEW HAVEN COUNTY SOIL SURVEY, U.S.D.A. - S.C.S.
- SOIL BOUNDARY LINES DERIVED FROM SMALLER SCALE MAP (1" = 1320') AND SHOULD NOT BE VIEWED AS PRECISE BOUNDARIES BUT RATHER AS A GUIDE TO THE DISTRIBUTION OF SOILS ON THE PROPERTY.

SCALE: 1" = 500'



SOILS LIMITATION CHART - RECREATIONAL DEVELOPMENT

MAP SYMBOL	SOIL NAME	POND		RESERVOIR AREA		PICNIC		PLAYGROUND		GOLF FAIRWAY		PATHS & TRAILS	
		RESTRICTIONS	SOIL NAME	RATING	REASON	RATING	REASON	RATING	REASON	RATING	REASON	RATING	REASON
Eh	Ellington silt loam	Slope		Slight	--	Moderate	Wetness	Slight	--	Slight	--	Slight	--
HtC	Holyoke silt loam, rocky, 3-15% slope	Slope, Depth to rock, Seepage		Moderate	Slope	Severe	Slope, Depth to rock	Severe	Slope, Depth to rock	Severe	Slope, Depth to rock	Severe	Slope
HuD	Holyoke-Cheshire complex, 15-35% slopes Holyoke	Slope, Depth to rock, Seepage		Severe	Slope	Severe	Slope, Depth to rock	Severe	Slope, Depth to rock	Severe	Slope, Depth to rock	Severe	Slope
	Cheshire	Seepage, Slope		Severe	Slope	Severe	Slope	Severe	Slope	Severe	Slope	Severe	Slope
MgB	Manchester gravelly sandy loam, 3-8% slopes	Slope, Seepage		Moderate	Small stones	Severe	Small stones	Severe	Small stones, Droughty	Severe	Small stones, Droughty	Moderate	Small stones
YaB	Yalesville fine sandy loam, 3-8% slopes	Seepage, Depth to rock, Slope		Slight	--	Moderate	Slope, Depth to rock	Moderate	Slope, Depth to rock	Moderate	Slope, Depth to rock	Moderate	Slight
YaC	Yalesville fine sandy loam, 8-15% slope	Seepage, Depth to rock, Slope		Moderate	Slope	Severe	Slope	Moderate	Slope, Depth to rock	Moderate	Slope, Depth to rock	Moderate	Slight

EXPLANATION OF RATING SYSTEM:

- SLIGHT LIMITATION: indicates that any property of the soil affecting use of the soil is relatively unimportant and can be overcome at little expense.
- MODERATE LIMITATION: indicates that any property of the soil affecting use can be overcome at a somewhat higher expense.
- SEVERE LIMITATION: indicates that the use of the soil is seriously limited by hazards or restrictions that require extensive and costly measures to overcome.



## SOIL DESCRIPTIONS

### Eh - Ellington silt loam.

This is a nearly level, moderately well drained soil in slight depressions on broad outwash terraces of narrow stream valleys. This soil has smooth slopes of 0-3 percent. Most slopes are less than 250 feet long. The areas dominantly are irregular in shape and 3 to 25 acres in size.

Typically, the surface layer is dark reddish brown silt loam 8 inches thick. The upper part of the subsoil is reddish brown silt loam 10 inches thick, and the lower part is mottled, reddish brown very fine sandy loam 8 inches thick. The substratum, to a depth of 60 inches, is dark reddish brown very gravelly sand.

Permeability is moderate in the surface layer and subsoil and rapid or very rapid in the substratum. The soil has a moderate available water capacity. Runoff is slow. This soil dries out and warms up slowly in spring. It has a low shrink-swell potential. Unless limed, it is medium acid or strongly acid.

This soil has fair to poor potential for community development. It has a seasonal high water table at a depth of about 20 inches. This soil is easy to excavate; however, the steep slopes of excavations are unstable. This soil has poor potential for waste disposal systems, such as septic tank absorption fields, because the water table is high from late in fall until mid or late spring. In addition, the septic system can pollute the groundwater. Foundations and basements must be properly designed and constructed to insure a stable foundation and to prevent wet basements. During periods of construction conservation measures are needed to prevent excessive runoff, erosion and siltation.

This soil is well suited to crops. Wetness is the major limiting factor for best crop production. This soil has a seasonal high water table at a depth of about 20 inches from late in fall until middle or late spring, and after prolonged rainy periods in summer. Drainage generally is needed to obtain the best production of commonly grown crops. Even if this soil is drained, it remains wet for several days after heavy rains, and the use of many kinds of farming equipment is restricted. Runoff and erosion are easy to control with simple conservation measures, such as planting cover crops during the winter months.

This soil is well suited to growing trees. It has no major limitations for growing or harvesting trees. Production is moderately high. Machine planting is feasible in open areas. Wetness may restrict the use of some equipment during the wetter parts of the year. Trees to favor in existing woodlots are eastern white pine and northern red oak. The trees to plant in open areas are eastern white pine.

### HtC - Holyoke silt loam, rocky, 3 to 15 percent slopes.

This is a gently sloping and sloping, somewhat excessively drained soil on hill-tops or glacial till uplands where the relief is affected by the underlying bedrock. In most areas, the surface is as much as 15 percent stones and boulders. The surface can be as much as 10 percent rock outcrops, but in most places it is less than 5 percent. Slopes are smooth or undulating, and most are convex. Most slopes are 100 to 500 feet long. The areas dominantly are irregular or long and narrow in shape and 3 to 40 acres in size.

Typically, the surface layer is very dark grayish brown silt loam 2 inches thick. The subsoil is dark reddish brown and reddish brown silt loam 11 inches thick. The underlying bedrock is hard unweathered basalt.

Included with the soil in mapping are small intermingled areas, generally less than 1 acre in size, of well drained Yalesville and Cheshire soils and moderately well drained Watchaug soils. In some small areas, bedrock is at a depth of less than 10 inches. In a few areas, the surface layer and subsoil are fine sandy loam. Included soils make up 5 to 20 percent of the mapped areas.

The Holyoke soil is moderately permeable above bedrock. It has a low available water capacity. Runoff is medium to rapid. Unless limed, it is medium acid through very strongly acid.

This soil has poor potential for community development. It is limited mainly by the shallowness to bedrock and rock outcrops. This soil is difficult to excavate, and blasting is generally necessary. Because of the shallowness to bedrock, waste disposal systems such as septic tank absorption fields do not function satisfactorily unless very unusual and expensive design and installation procedures are used. Water and sewer lines are difficult and costly to install. Landscaping is limited by rock outcrops and stoniness; lawns, shrubs, and trees are affected by droughtiness. During periods of construction, conservation measures such as temporary vegetative cover, mulching, and siltation basins generally are needed to control excessive runoff, erosion, and siltation.

This soil is poorly suited to crops because it is droughty and has bedrock outcrops. It lacks sufficient moisture during most years for a good crop yield. In places, rock outcrops or bedrock that is at a depth of 10 inches interfere with tillage equipment. Intensive conservation measures may be needed to control runoff and erosion. Because this soil is shallow, erosion must be controlled to retain as much soil material as possible.

This soil is poorly suited to trees because of the shallowness to bedrock and rock outcrops. It has low productivity. Seedling mortality is severe because of droughtiness. Windthrow is common with larger trees because of the shallow rooting depth. Machine planting is feasible in some open areas, but it generally is difficult because of the shallowness to bedrock. Trees to favor in existing woodlots are eastern white pine and northern red oak. Trees to plant are eastern white pines.

The included Cheshire soils have a good potential for community development. The other included soils have poor potential for septic tank absorption fields. The Yalesville soils are limited by bedrock at a depth of 20 to 40 inches, and the Watchaug soils by a seasonal high water table at a depth of about 20 inches.

HuD - Holyoke - Cheshire complex, 15 to 35 percent slopes.

This complex consists of moderately steep and steep, well drained and somewhat excessively drained soils on uplands where the relief is affected by the underlying bedrock. Slopes are concave or convex and most are 100 to 1000 feet long. The areas have a rough surface with bedrock outcrops, a few narrow intermittent drainageways, and small wet depressions. In many areas, up to 15 percent of the surface is stones and boulders. Approximately 40 percent of this complex is Holyoke silt loam, 35 percent is Cheshire extremely stony fine sandy loam, and about 25 percent is other soils and rock outcrops. The areas of this complex dominantly are irregular or long and narrow in shape and 3 to 150 acres in size.

The Holyoke soil has moderate permeability above the bedrock. It has a low available water capacity. Runoff is rapid. The Cheshire soil has moderate permeability. It has a high available water capacity. Runoff is rapid. The Holyoke and Cheshire soils have a low shrink-swell potential. Unless limed, they are medium acid through very strongly acid.

This complex has poor potential for community development. It is limited mainly by steep slopes, shallowness to bedrock, and rock outcrops. Excavation is difficult in many places because of the shallowness to bedrock. Waste disposal systems, such as septic tank absorption fields, require very careful and often unusual design and installation to insure that effluent does not seep to the surface in areas downslope from the leaching system. Sites often need to be more than 2 acres in size in order to locate a soil that is deep enough for the installation of an onsite septic system. There is a hazard of effluent seeping into cracks in the bedrock and polluting the ground water, which is a source of drinking water in many places. Many of these areas provide a very scenic and picturesque setting for homes. During construction, intensive conservation measures, such as diversions, vegetative cover, mulching, and sedimentation basins are frequently needed to prevent excessive runoff, erosion, and siltation.

The included soils have poor potential for septic tank absorption fields. This is because Wethersfield soils have steep slopes. Watchaug soils have a seasonal high water table at a depth of about 20 inches, and Yalesville soils have bedrock at a depth of 20 to 40 inches.

YaB - Yalesville fine sandy loam, 3 to 8 percent slopes.

This gently sloping, well drained soil is on broad hilltops and ridges. The relief is affected by the underlying bedrock. Slopes are smooth and convex. They are mostly 100 to 300 feet long. The areas are dominantly irregular in shape and are mostly 5 to 80 acres in size.

Typically, the surface layer of this soil is dark brown fine sandy loam 8 inches thick. The subsoil is 17 inches thick. It is reddish brown, friable fine sandy loam and loam. The substratum, described to a depth of 36 inches is reddish brown sandy loam. Reddish brown, hard sandstone bedrock is at a depth below 36 inches.

Included with this soil in mapping are small intermingled areas, generally less than 1 acre in size, of excessively drained Holyoke soils, well drained Cheshire and Wethersfield soils, and moderately well drained Watchaug and Ludlow soils. In a few areas the surface layer is silt loam, and in a few small areas the slopes are less than 3 percent. Included areas make up 5 to 15 percent of this map unit.

This soil has moderate or moderately rapid permeability above the bedrock. The available water capacity is moderate. Runoff is medium. Good tilth is easy to maintain. The soil tends to dry out and warm up early in the spring. It has a low shrink-swell potential. In areas that are not limed, this soil is very strongly acid through medium acid.

This soil has fair potential for community development. It is difficult to excavate because the bedrock is at a depth of 20 to 40 inches. Waste disposal systems, such as an onsite septic system, need very carefully and often costly design and installation to insure that they function properly. This soil is well suited to landscaping. During construction of community developments, conservation measures are needed to prevent excessive runoff, erosion, and siltation.

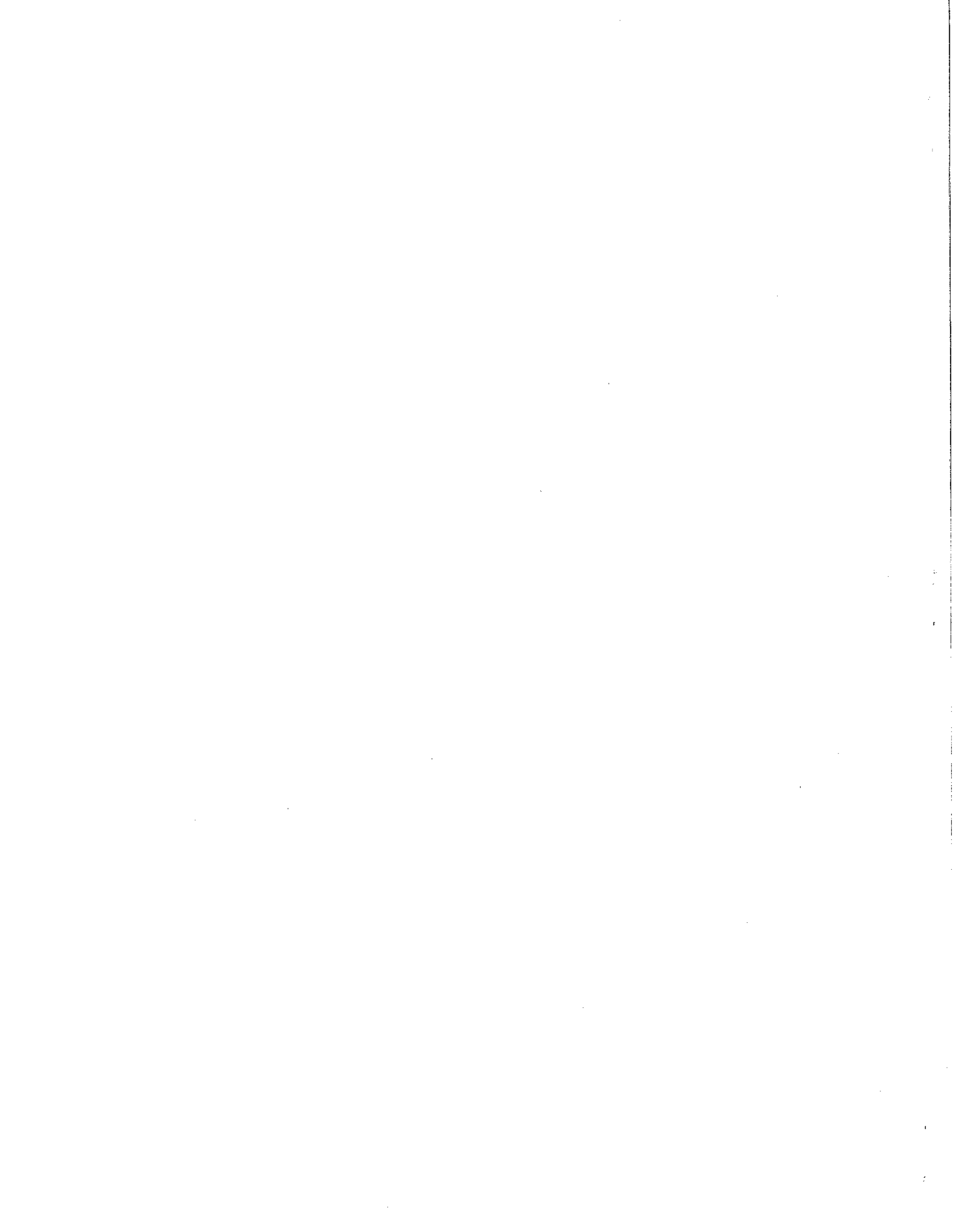
This soil is well suited to cultivated crops. It is easy to maintain in good tilth. The hazard of erosion is moderate, and controlling runoff and erosion is a concern in managing this soil for farming. If this soil is cultivated, minimum tillage, use of cover crops, and including grasses and legumes in the cropping system help to reduce runoff and control erosion and sedimentation.

This soil is suited to growing trees. It has moderate productivity. Windthrow is a hazard with large trees because of the limited rooting zone above the bedrock. Machine planting is practical in open areas. Trees to favor in existing woodlots are eastern white pine, sugar maple, and northern red oak. Trees to plant are eastern white pine.

The included Cheshire soils are better suited to community development than this Yalesville soil. The Wethersfield soils have fair potential and are limited mainly by the slowly permeable or very slowly permeable substratum. The Holyoke soils have poor potential because of bedrock at a depth of 10 to 20 inches. From fall until mid-spring, the Ludlow and Watchaug soils have a water table at a depth of about 20 inches.

YaC - Yalesville fine sandy loam, 8 to 15 percent slopes.

This soil is identical to YaB except for the steeper slopes.



# ABOUT THE TEAM

The King's Mark Environmental Review Team (ERT) is a group of environmental professionals drawn together from a variety of federal, state, and regional agencies. Specialists on the team include geologists, biologists, foresters, climatologists, soil scientists, landscape architects, recreation specialists, engineers, and planners. The ERT operates with state funding under the aegis of the King's Mark Resource Conservation and Development (RC&D) Area - a 47 town area in western Connecticut.

As a public service activity, the team is available to serve towns and developers within the King's Mark Area --- free of charge.

## PURPOSE OF THE TEAM

The Environmental Review Team is available to help towns and developers in the review of sites proposed for major land use activities. To date, the ERT has been involved in the review of a wide range of significant activities including subdivisions, sanitary landfills, commercial and industrial developments, and recreation/open space projects.

Reviews are conducted in the interest of providing information and analysis that will assist towns and developers in environmentally sound decision-making. This is done through identifying the natural resource base of the project site and highlighting opportunities and limitations for the proposed land use.

## REQUESTING A REVIEW

Environmental Reviews may be requested by the chief elected official of a municipality or the chairman of an administration agency such as planning and zoning, conservation, or inland wetlands. Requests for reviews should be directed to the Chairman of your local Soil and Water Conservation District. This request letter must include a summary of the proposed project, a location map of the project site, written permission from the landowner/developer allowing the team to enter the property for purposes of review, and a statement identifying the specific areas of concern the team should address. When this request is approved by the local Soil and Water Conservation District and the King's Mark RC&D Executive Committee, the team will undertake the review. At present, the ERT can undertake two reviews per month.

For additional information regarding the Environmental Review Team, please contact your local Soil Conservation District Office or Richard Lynn (868-7342), Environmental Review Team Coordinator, King's Mark RC&D Area, P.O. Box 30, Warren, Connecticut 06754.