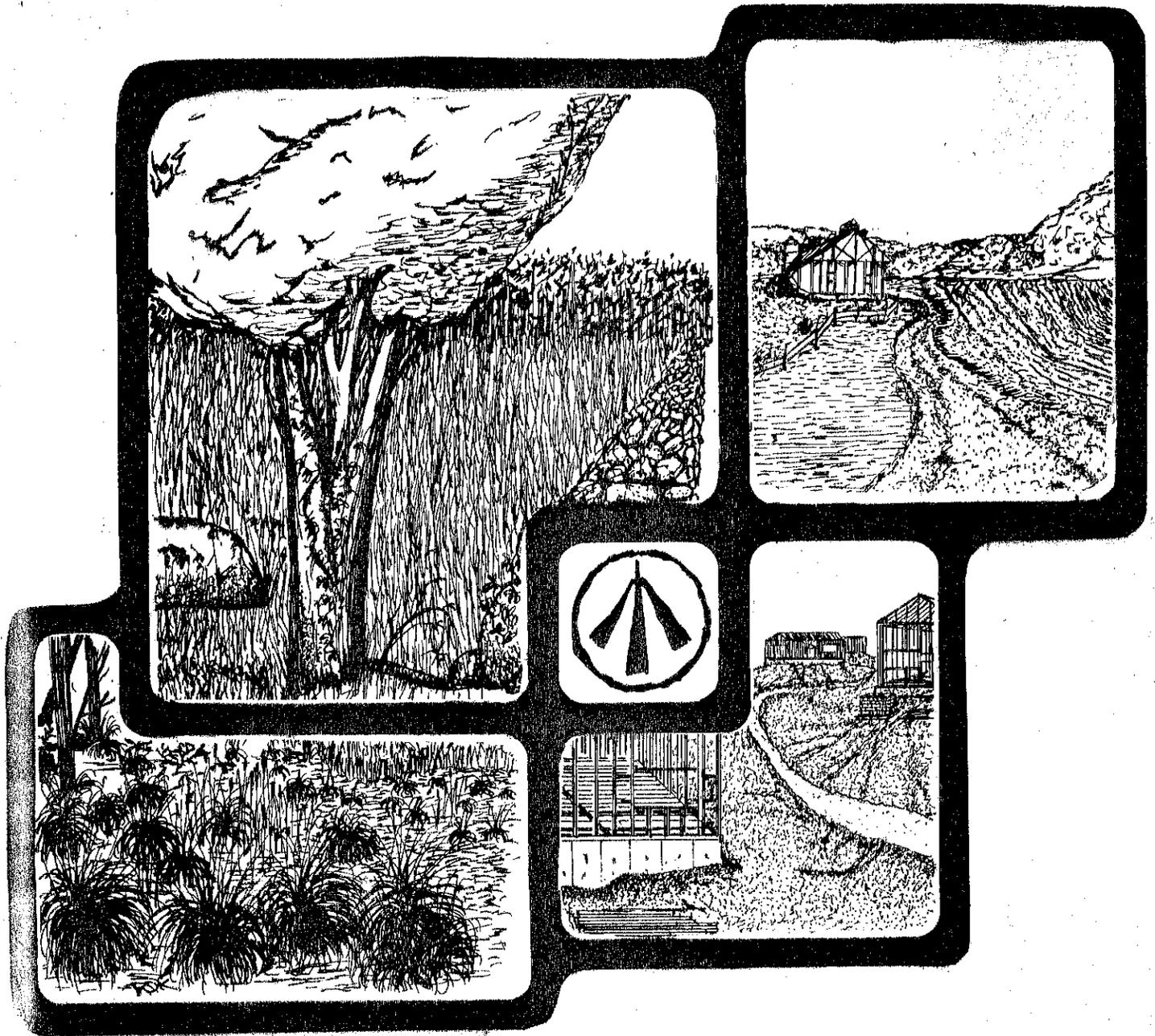
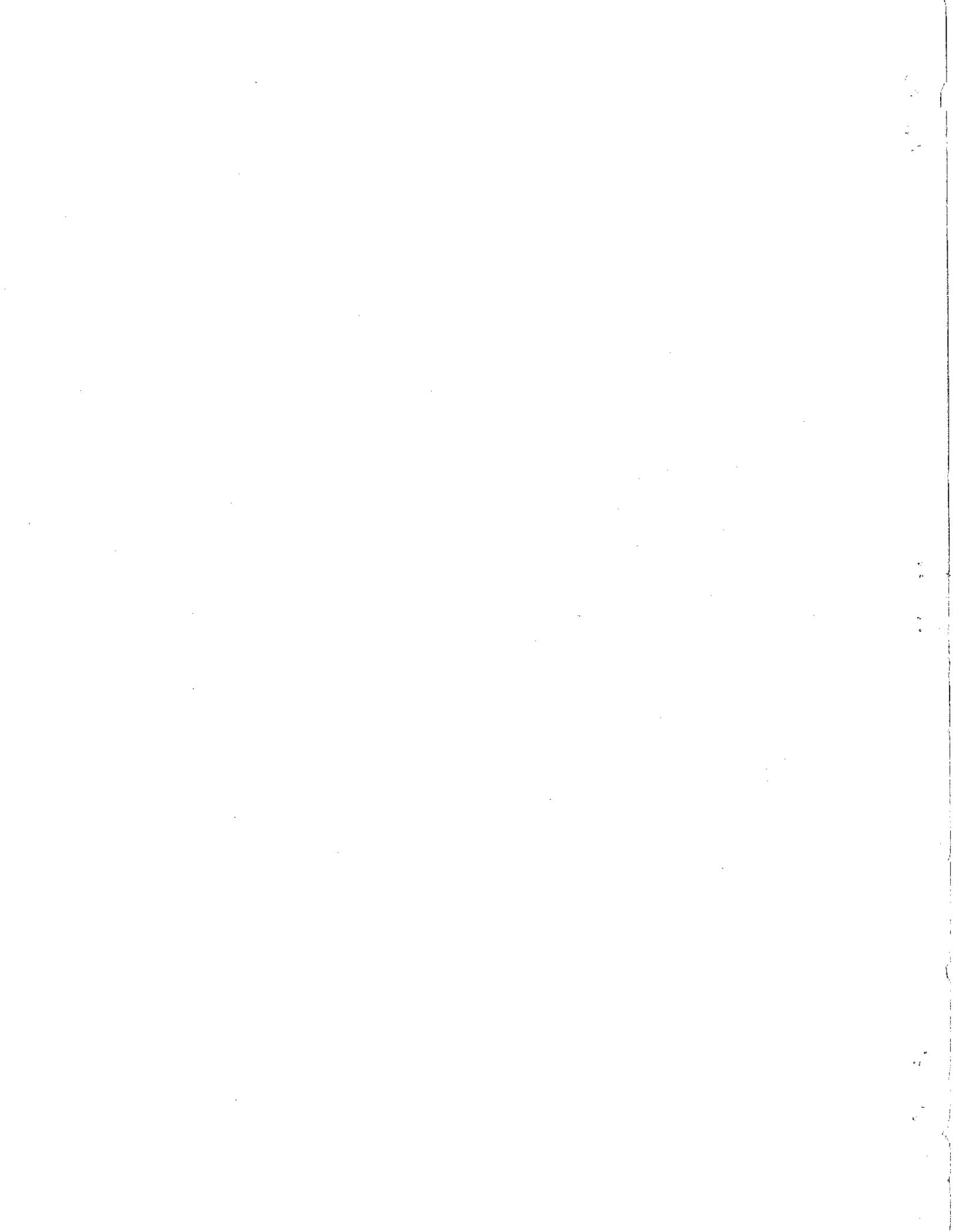


# ENVIRONMENTAL REVIEW TEAM REPORT



PEARL STREET CAMP  
SOUTHURY, CONNECTICUT

KING'S MARK  
RESOURCE CONSERVATION & DEVELOPMENT AREA



# KING'S MARK ENVIRONMENTAL REVIEW TEAM REPORT

ON

## PEARL STREET CAMP SOUTHBURY, CONNECTICUT



DECEMBER 1979

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

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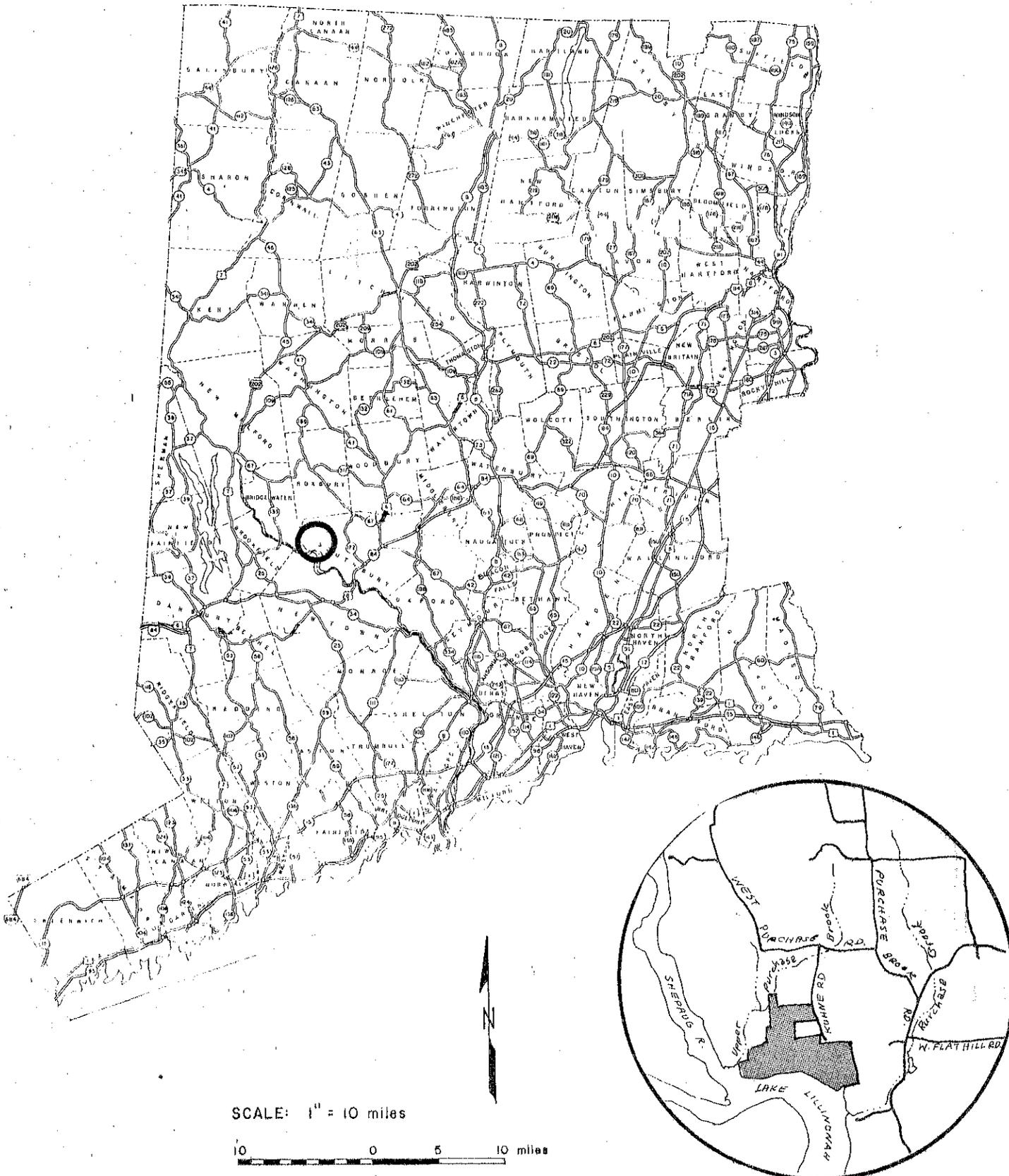
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# LOCATION OF STUDY SITE

## PEARL STREET CAMP SOUTHBURY, CONNECTICUT



ENVIRONMENTAL REVIEW TEAM REPORT  
ON  
PEARL STREET CAMP  
SOUTHURY, CT.

I. INTRODUCTION

The Pearl Street Community Center Inc. of Waterbury, Connecticut is interested in improving a + 197 acre tract of land in Southbury for camping purposes. The subject property is owned by Pearl Street Inc. and is located on the northern shore of Lake Lillinonah in the southwestern corner of Southbury. Access to the property is available from the north off an unimproved dead-end road known as Kuhne Road.

The Pearl Street property has been used to a limited extent in recent years for camping activities and a number of buildings are present on the property (see Figure 1). Elsewhere the property is mostly wooded. Gunnars Road, an unimproved dead-end road, offers vehicular access into the interior of the tract to the area of the existing buildings. South of the buildings, the use of Gunnars Road is severely restricted due to steep slopes and a decrepit road bed.

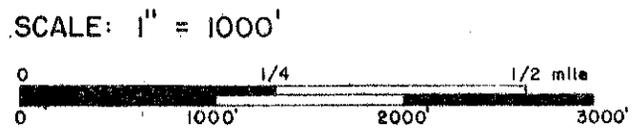
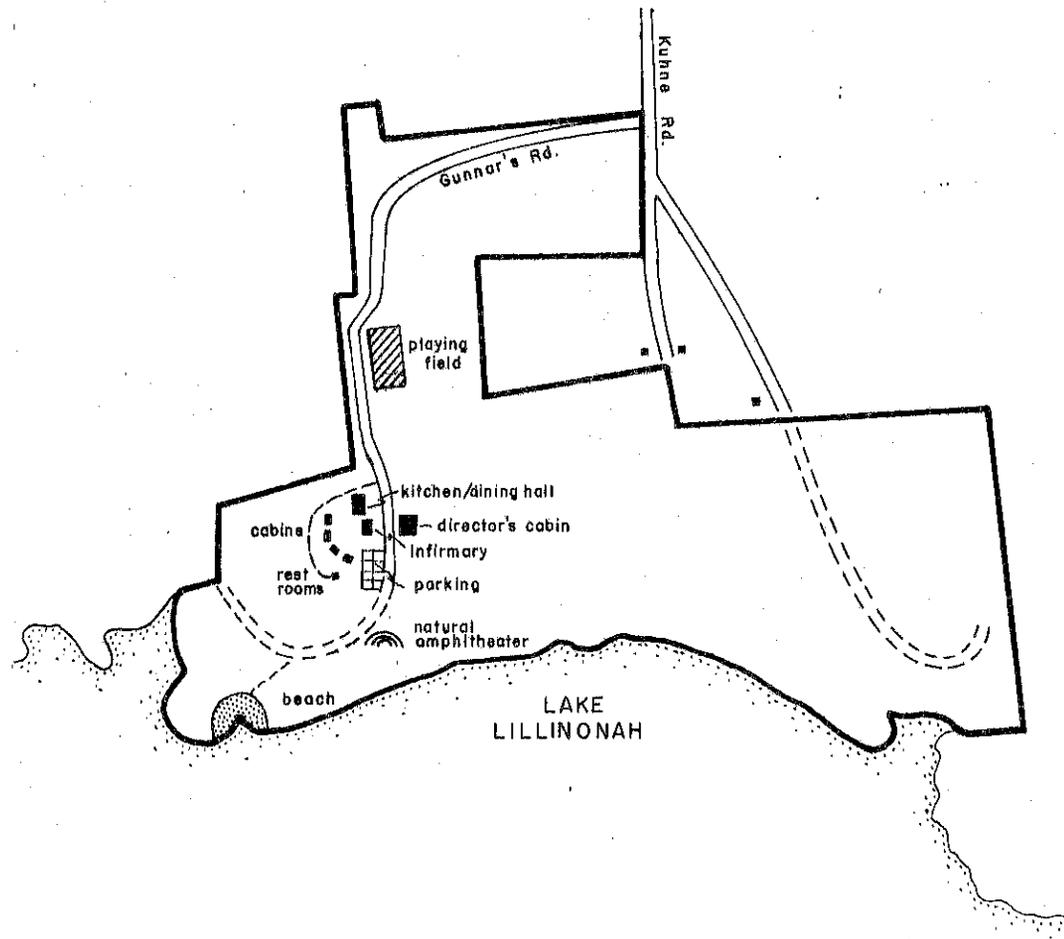
In 1977, the Pearl Street Community Center had a "natural resource inventory/recommendations for management" study prepared on the property by two graduate students at Yale. The Center is interested in implementing the recommendations made in that report to enhance the recreational use and attractiveness of the property. Towards this end, Pearl Street is now applying to the U.S.D.I. Heritage Conservation and Recreation Service for funds to implement the proposed improvement measures (see Figure 2).

The Executive Director of Pearl Street Inc. requested the assistance of the King's Mark Environmental Review Team to assist his organization in applying for the federal funds. Specifically, the ERT was requested to prepare an environmental assessment of the proposed development. Such an assessment is required as part of the H.C.R.S. grant application.

The Pearl Street 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 November 14, 1979. Team members for this review consisted of the following:

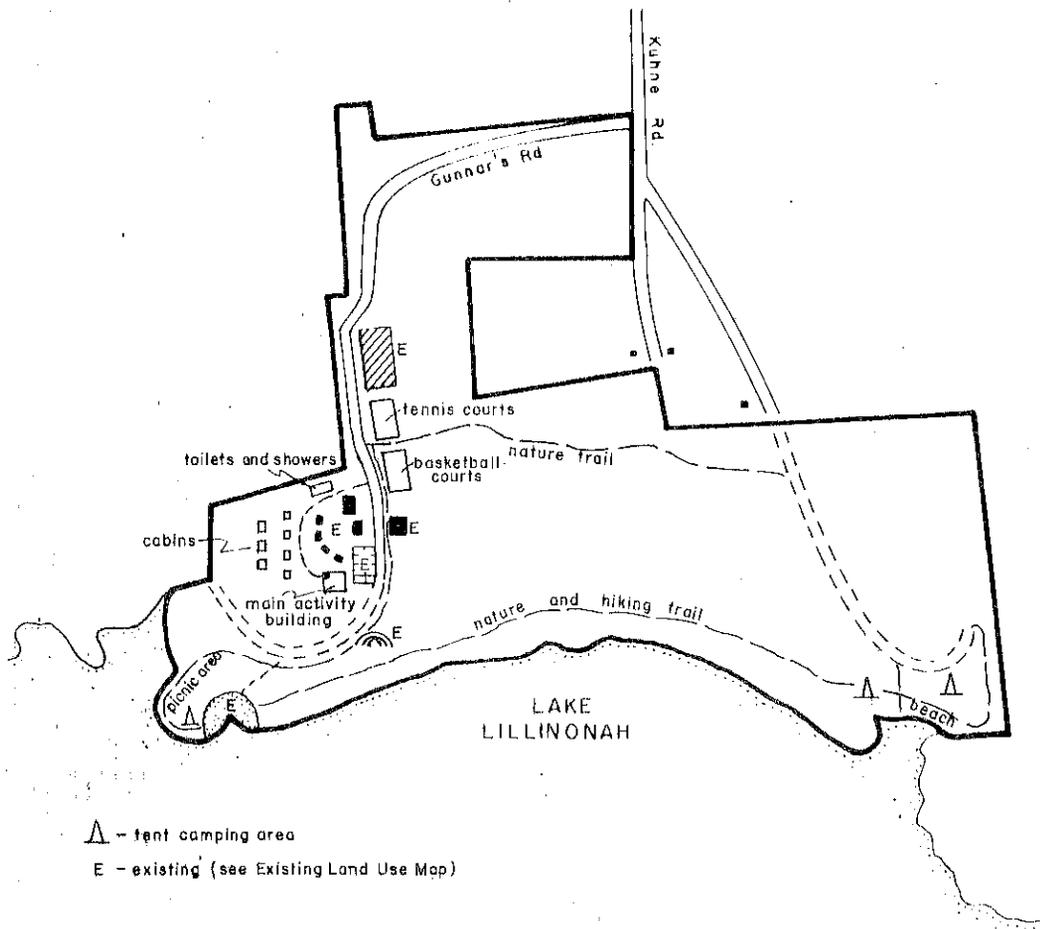
Norman Cole	..... Regional Planner	..... Central Naugatuck Valley Regional Planning Agency
Russell Handsman	... Archaeologist	..... American Indian Archaeological Institute
Frank Indorf	..... District Conservationist	.. U.S.D.A. Soil Conservation Service
Robert Orciari	..... Fishery Biologist	..... State Dept. of Environmental Protection
Edward Rizzotto	.... Recreation Specialist	.... State Dept. of Environmental Protection
Robert Rocks	..... Forester	..... State Dept. of Environmental Protection
Hubert Williamson	.. Executive Director	..... Pearl Street Community Center, Inc.
Michael Zizka	..... Geohydrologist	..... State Dept. of Environmental Protection

FIGURE I.  
EXISTING LAND USE MAP





# FIGURE 2. PROPOSED LAND USE MAP



△ - tent camping area  
 E - existing (see Existing Land Use Map)



SCALE: 1" = 1000'



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 was designed to be consistent with that suggested in the "H.C.R.S. Environmental Assessment Outline". If any additional information is required, please contact Richard Lynn (878-7342), Environmental Review Team Coordinator, King's Mark RC&D Area, P. O. Box 30, Warren, Connecticut 06754.

\* \* \* \* \*

## II. DESCRIPTION OF THE PROPOSAL

The Pearl Street Community Center, 106 Columbia Blvd., Waterbury, Ct. is proposing to develop camp facilities on a + 197 acre tract of land owned by Pearl Street on Lake Lillinonah in Southbury, Ct.

The Pearl Street Camp would be designed to provide an intensive outdoor experience for underprivileged inner-city youngsters as well as youngsters from surrounding towns through a combination of nature study, environmental education, learning Indian crafts, cooking and survival skills, hiking, swimming, sports, and overnight camping in tents and log cabins. The need for a facility which can provide this kind of experience is demonstrated by the fact that there are very few camps of this type in the regional area.

Aesthetically, the subject property is well suited for use as a camp. The area is isolated, mostly wooded, and scenic. The landscape is diverse and the property's frontage on Lake Lillinonah is an added benefit.

Pearl Street plans to develop the proposed facilities, shown in Figure 2, over a three year period beginning in 1980.

The proposed project at the present time is not directly linked with any other recreation project or proposal in the greater Waterbury region. However, improvements of the Pearl Street Property would serve to indirectly compliment current efforts to revitalize the Region's urban parks and would be consistent with ongoing efforts to protect and develop the Shepaug River as a recreational corridor. The City of Waterbury has made application for \$13.7 million in H.C.R.S. funds over a five year period to revitalize and improve the City's recreational facilities under the federal Urban Parks and Recreation Recovery Program. The Pearl Street Property, if developed to serve 100 urban residents per week, would provide an alternative "nature experience" to city residents that would otherwise be unavailable.

The Pearl Street proposal is fully consistent with comprehensive planning efforts at all levels of government. At the local level the site is located in a rural portion of the Town of Southbury zoned R-80 (2 acre residential) and programmed for low density development and agricultural/open space uses. At the regional level, the site is designated as existing open space on the Central Naugatuck Valley Regional Planning Agency's "Plan of Regional Development". At the state level, the site is shown as proposed open space (Plan of Conservation & Development).

## III. DESCRIPTION OF THE ENVIRONMENT

### A. Land Use and Socioeconomic Conditions

The camp property was donated to Pearl Street by the Connecticut Light and Power Company several years ago. Since that time it has been used by Pearl Street as a day camp for two or three weeks during the summer. Although there are several camp buildings on the property, they have been severely vandalized, repaired and vandalized again and have not been consistently available for use. If the camp development project is not carried forward, these facilities can be expected to deteriorate further and eventually become completely unusable.

The Pearl Street Property is located in a rural section of the Town of Southbury that has a low population density (70 persons/sq. mi.) and is projected to grow at a much slower rate than the rest of the Town of Southbury and the Region as a whole. Current economic activity in the vicinity of the site consists of limited dairy farming with virtually no commercial or industrial development projected to occur to the year 2000. In contrast, the Pomperaug Valley-- Interstate 84 portion of Southbury, located some five miles from the site, is projected to receive moderately rapid population and economic development to the year 2000. (Sources of data: CNVRPA Land Use Survey 1975; CNVRPA 208 Land Use Projections; Population Estimates, Connecticut Department of Health, 1976.)

## B. Topography

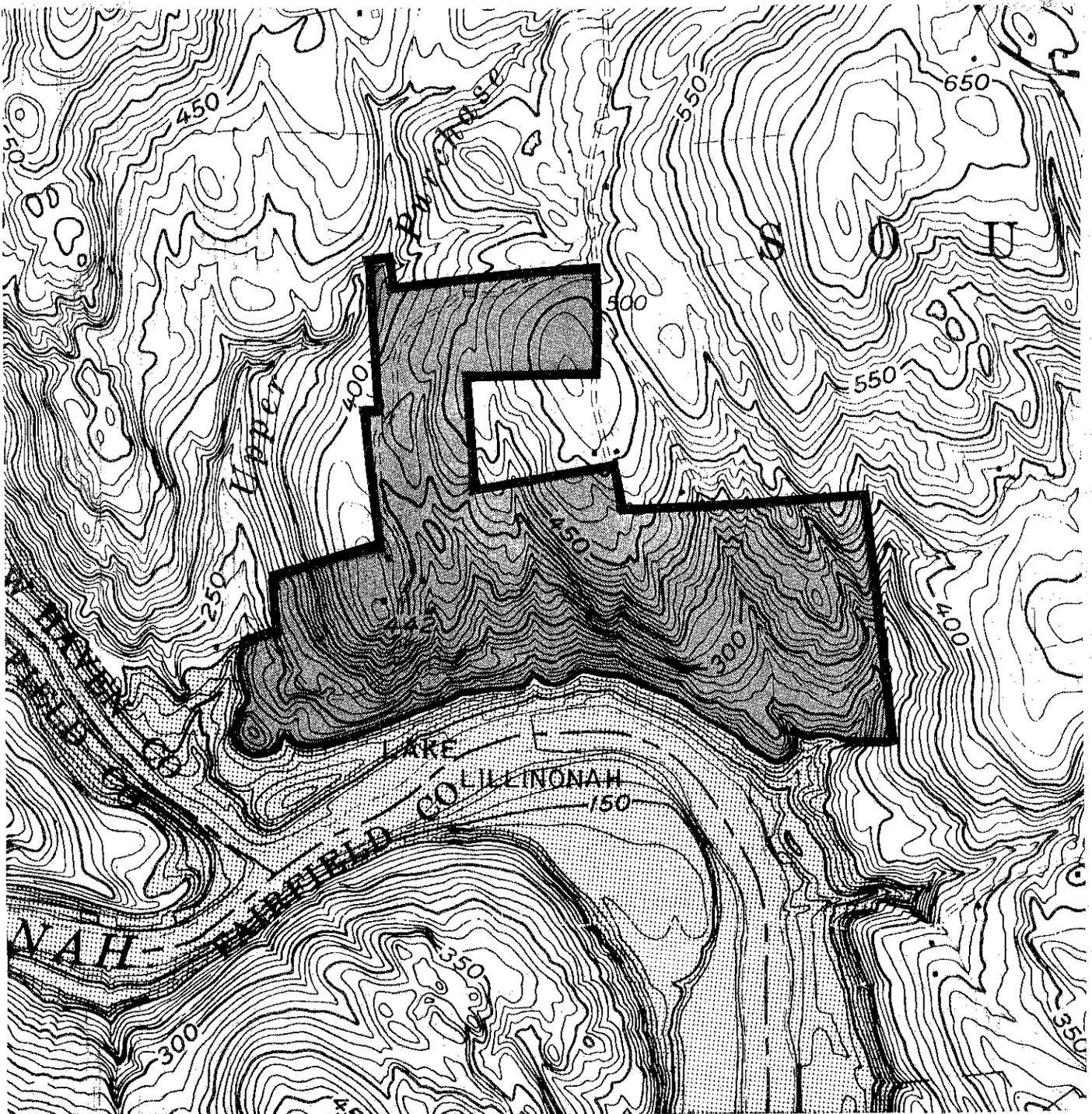
The Pearl Street property is located on a steep, irregular hillside bordering Lake Lillinonah, an impoundment of Housatonic and Shepaug Rivers. The steepness of the terrain (see Figure 3) is a result of the configuration of the local bedrock, which is at or near the surface in most of the site. Because the bedrock is characterized by numerous subparallel ridges, a series of narrow swales is present wherein streams intermittently or perennially carry water south to the lake. At the southwestern corner of the site, just west of the present beach, a small, distinct hillock rises from the lake. Composed of sand and gravel, this hillock is part of a system of glacial meltwater deposits which partially fill the Housatonic River valley and which were largely inundated by the creation of Lake Lillinonah.

## C. Surface and Subsurface Geology

The Pearl Street property is located within the Newtown topographic quadrangle. A bedrock geologic map of that quadrangle has been prepared by R. S. Stanley and K. G. Caldwell, and published by the Connecticut Geological and Natural History Survey as Quadrangle Report No. 33 (1976). The map shows two major bedrock types within the site; both are phases of the same rock formation, the Hartland II. One phase is a light brown to gray, rusty to nonrusty weathering, medium-grained, bedded to nonbedded schist, with muscovite, biotite, quartz, and plagioclase as principal mineral components and garnet, staurolite, and/or kyanite as accessories. A schist is a rock in which flaky, platy, or elongate minerals have become aligned to form surfaces of relatively easy parting. The other phase of Hartland II that is present on the site is a black to dark grey, medium-grained amphibolite, whose principal mineral component is hornblende and whose subordinate components are plagioclase and quartz. The term "amphibolite" refers to the predominance of the mineral hornblende, an amphibole. The distribution of the two bedrock phases is shown in Figure 4.

Although no mention is made of it in the quadrangle report referred to above, the Hartland II appears to contain numerous lenses or layers of milky colored quartz. Only one small exposure of the quartz was actually observed during the field review, but the presence of pits and of several piles of quartz boulders near the eastern boundary of the site indicates that other lenses or layers of quartz were found and exploited in the past. Fracturing of the bedrock that accompanied metamorphism (recrystallization of the rock during periods of earth movement) has given the quartz, in many places, unusually flat-surfaces and sharp edges.

FIGURE 3.  
TOPOGRAPHIC MAP



SCALE: 1" = 1000'

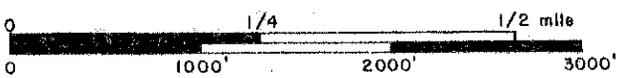
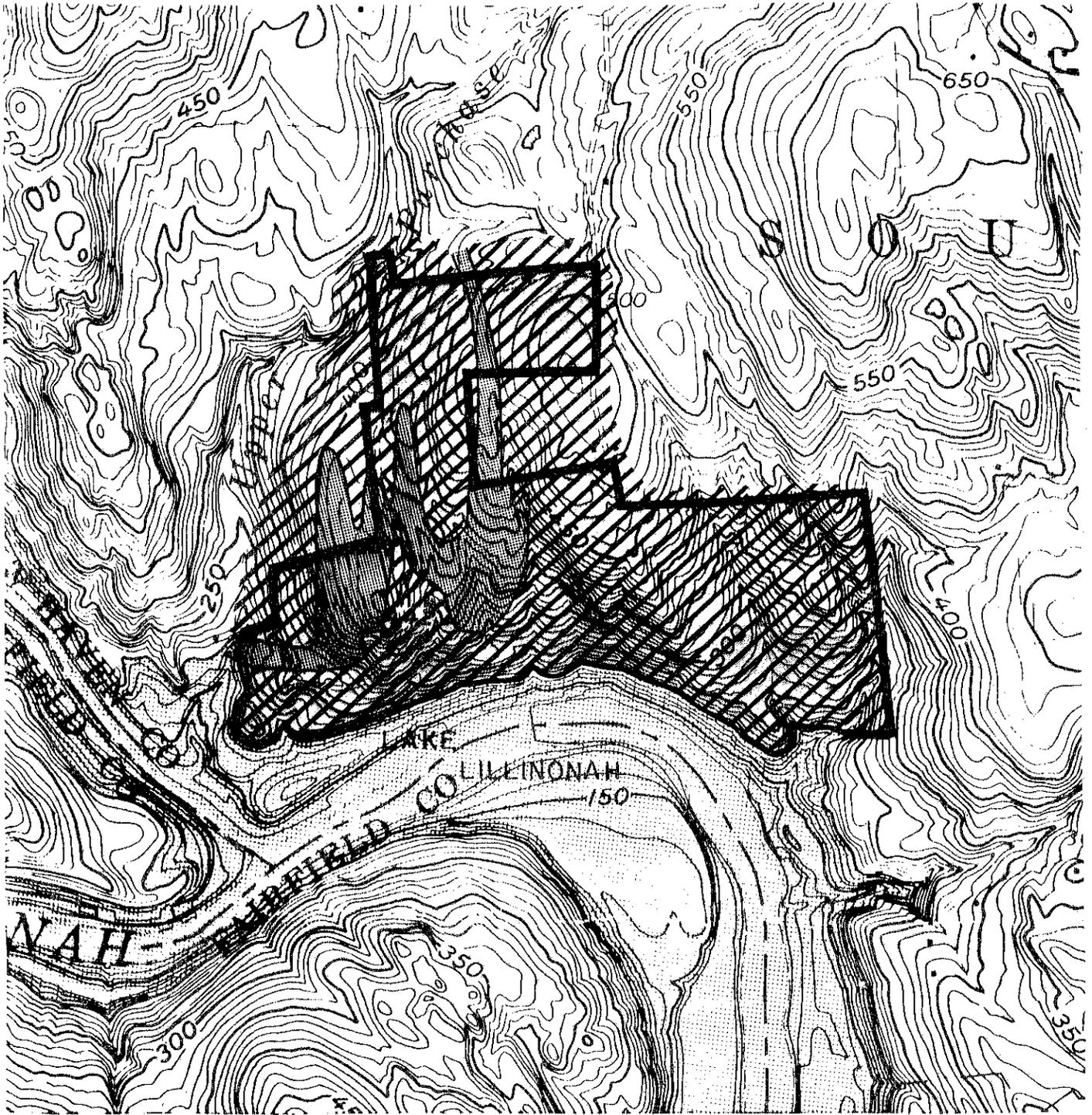


FIGURE 4.  
**BEDROCK GEOLOGY** (ADAPTED FROM  
 CONN. GEOL. NAT'L. HISTORY SURVEY BULL. NO. 33)



SCALE: 1" = 1000'



EXPLANATION



MUSCOVITE - BIOTITE - QUARTZ -  
 PLAGIOCLASE SCHIST



AMPHIBOLITE

Overlying the bedrock on the site is a thin, discontinuous mantle of unconsolidated glacial sediments. Most of these sediments are till, a direct deposit from the ice. Till contains rock particles and fragments of widely ranging sizes and shapes. The texture of the till is typically silty, stony, and compact. In the southwestern corner of the site, a pit reveals the presence of water-sorted sand and cobble gravel deposits. These materials, unlike till, were deposited by meltwater streams that issued from the wasting glacier as it retreated up the Housatonic and Shepaug valleys. Such deposits are called stratified drift. The distribution of till and stratified drift on the site is shown in Figure 5.

#### 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.

As shown in the Soils Map, most of the soils on the property consist of Charlton soils and Hollis soils. The Charlton soils are generally favorable for recreational development except where slope or stoniness is a problem. The Hollis soils on the property are much less favorable for recreational development due to steep slopes and shallow to bedrock conditions. Additional information on soil characteristics and suitability for development is presented in the Appendix.

#### E. Climate

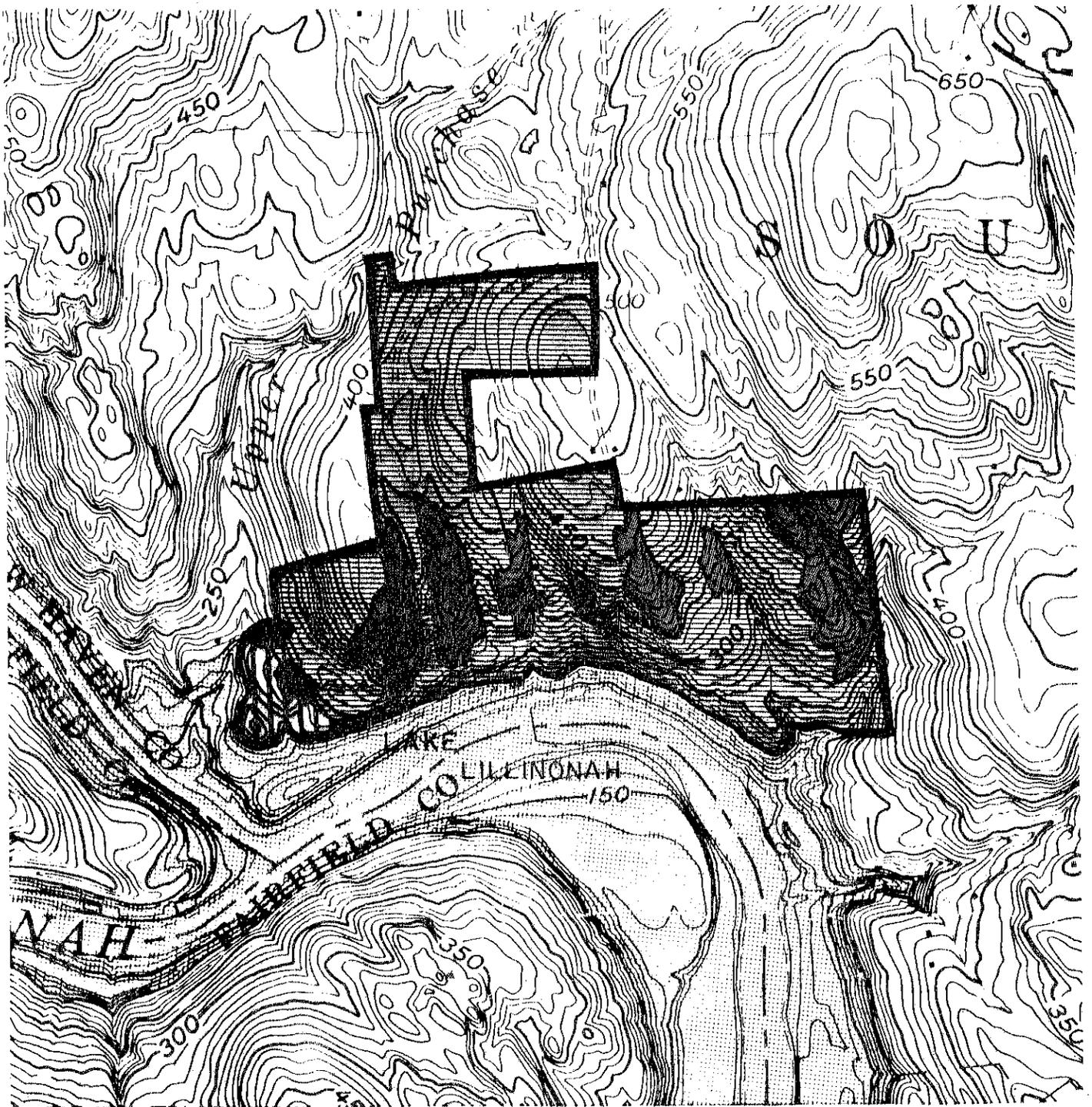
According to the publication "Rare and Endangered Species of Connecticut and their Habitats" by Dowhan and Craig (the Natural Resources Center, Connecticut D.E.P., 1976), the Pearl Street site is located in the Southwest Hills ecoregion. The climatic characteristics of this ecoregion, as described in the Dowhan and Craig report, are as follows:

"The mean annual temperature is 49.5°F. The average winter temperature (December - February) is about 29.5°F., with a monthly mean minimum temperature in the coldest month of about 19°F. Mean annual minimum temperature is about -5°F. Seasonal snowfall accumulation averages 40 inches. The average frost-free season is about 160 days. The average summer temperature (June-August) is about 70°F., with a monthly mean temperature for the warmest month of 85°F., one of the highest in the State. Average annual precipitation is about 45 inches."

#### F. Water Resources

The most notable water body on the site is, of course, Lake Lillinonah. The lake is actually a 10-mile long impoundment of Housatonic River; the backwater also extends approximately 3.5 miles up the Shepaug River. The drainage area of the lake is about 1392 square miles and its surface area is about 1900 acres. At the southeastern and southwestern corners of the property, the impoundment has flooded the mouths of streams, forming two coves. Upper Purchase Brook flows into the western cove and another perennial stream flows into the eastern cove. At least one intermittent stream flows into the eastern cove, while several others flow directly into the main body of the lake.

FIGURE 5.  
SURFICIAL GEOLOGY



EXPLANATION



BEDROCK OUTCROP AREA

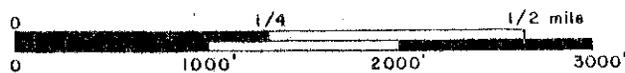


AREAS OF SCATTERED, SMALL  
BEDROCK OUTCROPS AND VERY THIN  
TILL (GENERALLY LESS THAN 5')



STRATIFIED DRIFT (SAND AND  
COBBLE GRAVEL)

SCALE: 1" = 1000'





A water-supply well could be established by drilling into bedrock or by digging, drilling, or driving a point into the stratified drift on the site. The natural quality of the water derived from such wells would depend mostly on the nature of the rock or sediment through which it passed. Because the stratified drift may have been derived from a bedrock source different from the bedrock on the site, the groundwater quality from the two sources may be dissimilar. The bedrock on the property is noncarbonate and should therefore yield water of low to moderate hardness. Undesirably high iron or manganese concentrations may be a problem, but it is more likely that the levels of these elements will be acceptable. Hardness may be more of a problem in a stratified drift well since carbonate bedrock is located upstream along the Housatonic River and may have been a source for part of the sediment. High iron or manganese concentrations are also possible in water from stratified drift.

A stratified drift well on the site may produce higher yields than a bedrock well. The coarse texture of the stratified drift would normally allow rapid transmission of groundwater; however, the texture of the sediment at depth is not known. It is likely that water withdrawn from a stratified drift well would be influenced by the quality of surface water in Lake Lillinonah. A bedrock well in the higher parts of the site would not be so influenced. Yields from bedrock wells depend upon the number and size of water-bearing fractures intersected. Such yields are generally small: from a survey of the records of 734 wells in the upper Housatonic River basin, Connecticut Water Resources Bulletin No. 21 reports that 90 percent yielded 2 gallons per minute or more, but only about 35 percent yielded 10 gallons per minute or more.

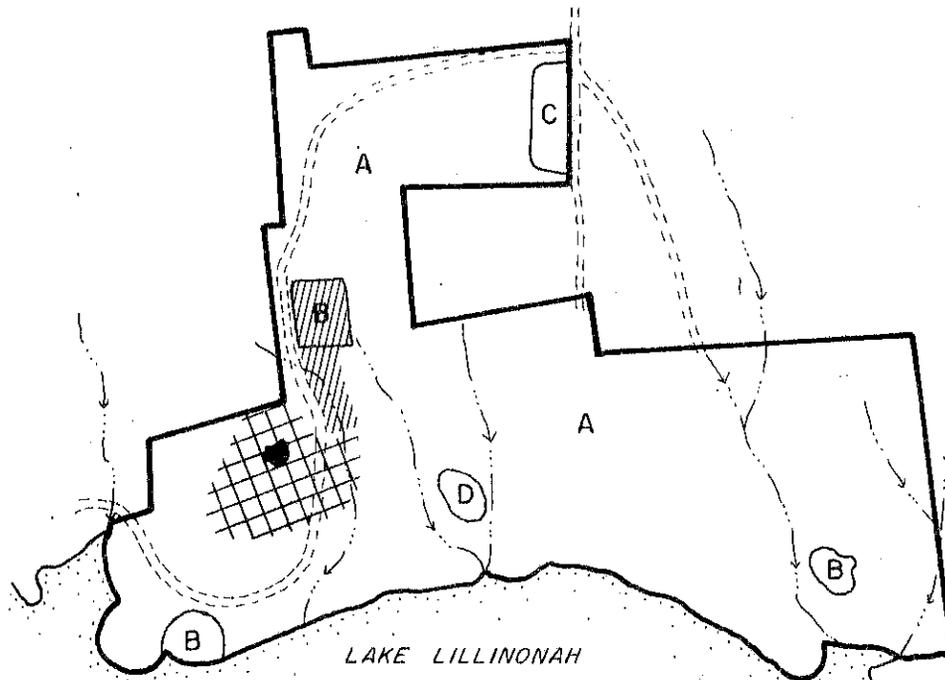
#### G. Vegetation

Four distinct vegetation types (stands) are present on the Pearl Street tract. Figure 6 shows the location of these different vegetation stands. A brief description of each stand is presented below.

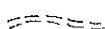
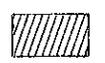
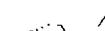
STAND A. Mixed Hardwoods. This 163 acre two aged stand is fully stocked and becoming crowded at the present time. Sawlog size red oak, white oak and shag-bark hickory are the dominant species present in the overstory. The understory is made up of seedling and sapling size blackbirch, red oak, sugar maple, red maple, yellow birch, American beech, American chestnut, witch hazel, mapleleaf viburnum, and arrowwood, along with scattered patches of eastern white pine and eastern hemlock. Club moss, Christmas fern and bracken fern are consistently present throughout this stand. The steeply sloped stream ravines running north and south (see vegetation type map) are included in this stand. In this part of the stand, sawlog-size sugar maple and American beech are also present along with occasional sapling size white ash. Understory and ground cover vegetation are identical except for the addition of spice bush, spinulose wood fern, grape fern, marsh fern and maidenhair fern.

STAND B. Cleared areas/open areas. Approximately five acres have been cleared of vegetation for potential recreational purposes in the west central portion of the tract. Grasses, goldenrod and assorted weed species dominate this disturbed area. The open field located in the eastern sector of this tract is dominated by sapling size red cedar with scattered seedling to sapling size black birch, black cherry, black oak, flowering dogwood, red maple, sassafras and witch hazel. Grasses, goldenrod and blackberry form a continuous ground cover in this portion of Stand B.

FIGURE 6.  
VEGETATION TYPE MAP



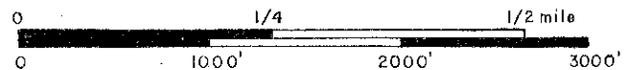
LEGEND

-  Dirt road
-  Property boundary
-  Stand type boundary
-  Areas cleared and proposed to be cleared for athletic fields. 5 acres.
-  Intensive use recreation area, 10 acres.
-  Patch of seedling to sapling white pine.
-  Stream

VEGETATION STAND DESCRIPTIONS\*

- STAND A - Mixed hardwoods, two-aged, fully-stocked, sapling to sawlog size, 163 acres.
- STAND B - Cleared areas/open areas, 5 acres.
- STAND C - Old field, fully-stocked, sapling to pole size, 3 acres.
- STAND D - Hemlock, fully-stocked, pole-size, 1 acre.

SCALE: 1"=1000'



\* Seedling-size - trees 1" and smaller in diameter at breast height (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.  
 Sawlog-size - trees 11 inches and greater in d.b.h.

STAND C. Old Field. This three acre stand is fully stocked with sapling to pole size eastern red cedar. Seedling and sapling size red oak, black birch and black cherry are encroaching on the edges of this stand. Grasses and golden-rod are present.

STAND D. Hemlock. Pole size hemlock are present along with occasional yellow birch and black birch in this one acre fully stocked stand. Club moss and Christmas fern are also present and form a spotty ground cover.

## H. Wildlife

As discussed in the preceding section of this report, most of the Pearl Street property consists of mixed hardwood forest. Wildlife species typically residing in this type of habitat include white-tailed deer, grey squirrel, ruffed grouse, and assorted songbirds. This type of habitat is common in the undeveloped portions of western Connecticut and is not considered a "critical habitat" according to the publication "Rare and Endangered Species of Connecticut and Their Habitat" (Dowhan and Craig, 1976). A critical habitat, according to the Dowhan and Craig report, is one providing suitable conditions for a rare species.

As a general rule, the greater the diversity and interspersed of habitat types, the more valuable the land is for wildlife. The Pearl Street tract presently lacks a diversity of habitat and therefore cannot sustain a large variety of wildlife species. The open areas, old fields, hemlock grove, and streambelts present on the tract do present a limited amount of habitat diversity and these areas should be preserved, maintained, and possibly expanded. The greatest assortment of wildlife species can be expected to be found in those areas of the site where different habitat types abut one another (e.g. the edge between wooded land and open land). By protecting and expanding these areas, the usefulness of the Pearl Street tract for wildlife will be enhanced.

## I. Fisheries

The Pearl Street property is located near the mid-point of Lake Lillinonah where the Housatonic and Shepaug arms of the lake converge. A wide variety of fish species are present in Lake Lillinonah. White perch is the most abundant species. Other abundant species are yellow perch, smallmouth bass, black crappie, white catfish, brown bullhead, rock bass, redbreasted sunfish and white sucker. Common species are largemouth bass, bluegill sunfish, common sunfish, golden shiner and carp. Northern pike, yellow bullhead, brown trout, and alewives are scarce. During the fall and spring, brown trout are occasionally caught north of the Pearl Street property in Pond Brook Cove. Northern pike are not known to reproduce naturally in Lake Lillinonah, but enter the Lake by moving down the Shepaug River from Bantam Lake, Litchfield-Morris. Also, the few alewives found in Lake Lillinonah may have originated from Candlewood Lake. Growth rates calculated in 1975 indicate that largemouth bass and black crappies have good growth. Smallmouth bass, white perch and yellow perch have fair growth.

Lake Lillinonah is noted for its good to excellent largemouth and smallmouth bass fishing. Fishing for black crappies is also excellent. White perch, sunfish, bullheads, and catfish generally provide good fishing. Incidental catches of northern pike are occasionally made by bass anglers. Youths who fish along the Pearl Street property, should have good catches of sunfish, bullheads and catfish.

At the present time, all fish in Lake Lillinonah are known to be contaminated by varying amounts of polychlorinated biphenyls or PCB's. PCB's are a family of chlorinated hydrocarbons, which in the past had a wide use in electrical transformers and many other products. They are persistent chemicals, which in high concentration are known to cause liver, kidney, and skin disorders. PCB's are also a suspected carcinogen in humans. The State Department of Health Services (D.O.H.S.) has indicated that eating fish containing PCB's is probably not completely safe at any level and has issued a warning against eating fish from the Housatonic River, from the Massachusetts border, through Lake Lillinonah to the Stevenson Dam of Lake Zoar. The PCB contamination of fish in the Housatonic River is being further investigated by the D.O. H.S. and in the future the warning against eating species of fish having concentrations below the recommended limit of two parts per million may be lifted. In any event, "catch and release" fishing should provide substantial recreational opportunities along the Pearl Street property.

#### J. Transportation and Access

The site is located approximately midway between the population centers of Waterbury and Danbury with easy access provided by Interstate 84 and State Route 172. From Waterbury, the site is reached by traveling 12 miles on I-84 to exit No. 14, North 1.3 miles on State Route 172, then 4.0 miles westerly on local roads. Given the small volume of traffic that this proposal will generate and the currently low "volume to capacity" ratios on local access roads, no traffic congestion problems are envisioned.

The primary site access issue is the generally poor condition of the private access road on the Pearl Street Property (Gunnars Road) which will require widening, regrading, and drainage improvements to be useable.

Road improvements from the entrance of the property to the area of the existing buildings should not be difficult. However, improving the road from the existing buildings to Lake Lillinonah will be both difficult and expensive due to steep slopes and shallow to bedrock conditions. The feasibility of improving this section of the road can only be determined by a detailed engineering study.

Another area of concern with respect to access is the poor sight line distance looking west at the T intersection of Kuhne Road and West Purchase Road. For safety reasons, sight distances at this point should be improved.

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

#### A. Cultural Resources

A study of the Pearl Street tract in Southbury, Connecticut has identified several cultural resources which could be adversely impacted by the proposed plan for recreational development. These known resources include one nineteenth century house foundation, probably associated with an historic farmstead of the late eighteenth and nineteenth centuries, and one prehistoric campsite. Each of these sites has suffered only minimal disturbance and can be considered to be a significant archaeological resource worthy of preservation.

The prehistoric site, known as the Eckart Site, is located in the southwestern section of the tract and is reputed to be at least two acres in size. It was first discovered in 1957 and excavated by the Bridgeport Chapter of the Archaeological Society of Connecticut during the 1960's. The published data (see Theodore H. Jostrand's 1970 article in Bulletin of the Archeological Society of Connecticut No. 36:7-16) suggest that the site consists of a number of temporally-discrete camps, primarily dating to the Late Archaic period (ca. 2500 B.C.). Even though the elevation of the site above the river would preclude active fluvial deposition, the excavated evidence indicates the presence of undisturbed cultural features, beneath the base of the plowzone. Such features could contain preserved evidence of prehistoric diets.

Given the presence and the size of this site, and the fact that other sites are known from the locality (but outside the boundaries of the tract), the tract is considered to contain other prehistoric sites whose presence is still unknown. Thus, any proposal which would result in new ground disturbance or which would allow increased public access to the tract would probably disturb or destroy prehistoric archaeological resources.

The tract also contains historic sites whose location and potential were briefly studied. On the basis of evidence isolated in the 1868 Beers' Atlas of New Haven County, Connecticut, the locality was the center of residential and milling activity in the mid-to-late nineteenth century. A settlement known as Union Bridge had developed around the confluence of Purchase Brook and the Housatonic River and included several houses as well as a hat shop and a shop which manufactured and repaired wagon wheels. Most of the settlement was situated between Purchase Brook and an unnamed tributary, outside of the tract's boundaries. However at least one house, associated with this community, was built on the tract and is now represented by a stone cellar hole (foundation) identified in the previous inventory prepared for the Pearl Street Center. Without intensive study, one cannot be sure whether additional historic sites exist. In a sense, because historic sites are more visible than prehistoric resources, they can hardly avoid being disturbed by the proposed recreational development.

This preliminary cultural resource study of the Pearl Street tract in Southbury indicates that the tract has been occupied by both prehistoric and historic populations. Evidence of these activities can be studied within the context of both undisturbed sites and, in the case of Eckart, as resources which have been only partially excavated.

On the surface, it would appear that plans which sponsor open space preservation could only benefit the conservation of archaeological deposits. However, such benefits may be countered by negative affects which are the result of an increase in public knowledge of and access to extant sites. This is especially true in those situations in which development plans include passive and active recreation. In the absence of State statutes and park regulations, there is little chance of controlling vandalism at archaeological sites. Thus, some attempt at developing a mitigation plan should be made by the involved federal, state, regional, and local authorities.

Such plans, based upon an intensive evaluation of the archaeological and historical potential of the tract, are required by federal preservation law.

Since the proposed recreational development would be a "Federally assisted and financed action" as defined in the Codified procedures of the Advisory Council on Historic Preservation (36 CFR-8:800), the Pearl Street Community Center is required, by preservation law, to more fully evaluate the impact of their project on the cultural resource base. While the proposed development will have no adverse effect upon sites or structures listed on the National Register of Historic Places, it could cause the disturbance or destruction of known and unknown sites which are eligible for inclusion on the Register.

## B. Planning Considerations

The area surrounding the camp property consists of another camp, farms and widely scattered residential properties. Two homes are located near the camp property line, but are several hundred yards from the areas of the property where the major activities will be taking place. It is not expected that large numbers of people will be using the property at any one time, so the possible annoyance of noise or traffic generated by the camp activities should be minimal.

Pearl Street plans to hire a live-in director for the camp in order to minimize vandalism and to keep a close watch on other factors which could lead to the deterioration of the property (e.g. litter, unauthorized logging and erosion). The director and other camp personnel will also be responsible for supervising the youngsters attending the camp while programs are in process so that they will in no way damage the property.

Implementation of the project will have no adverse impact on air quality and no adverse impacts on socio-economic conditions are anticipated.

Normal volumes of solid wastes will be generated incidental to overnight camping activities. Solid wastes will be collected on-site and disposed of at the municipal landfill.

Development of the Pearl Street Property will necessarily involve a significant consumption of transportation-related fuels. However, anticipated travel patterns will be highly compatible with chartered bus utilization and private carpooling which will mitigate fuel consumption impacts. The level of fuel consumption involved in this proposal may in fact be comparable to daily utilization of urban recreation facilities and will be less than the fuel consumed if potential site users were to seek similar recreation services on an individual basis. On-site per capita energy consumption is expected to be substantially less than average urban per capita consumption.

## C. Soils

Construction of the planned facilities should not adversely affect soil resources if appropriate erosion and sediment controls are implemented with project plans. These controls should include limiting soil disturbance during construction, regrading and revegetating exposed areas as soon as possible and attempting to keep cuts and fills at a minimum 2:1 slope. Additional guidance for controlling erosion and sedimentation may be found in the "Erosion and Sediment Control Handbook - Connecticut" (U.S.D.A. Soil Conservation Service, 1976). This document is available from the New Haven County Soil and Water Conservation District.

Soil erosion is of most concern with respect to the proposed hiking trails on the steep slope portions of the property. The southern portion of the property is a most critical area to develop for hiking trails due to steep slopes.

As a general rule, all trails should be laid out in harmony with the contour of the land. Avoiding straight up, frontal assaults on steep slopes and emphasizing leisurely switchbacks in trail design will substantially reduce the risk of erosion. Other methods that help control erosion include leaving fallen trees across the trails and by guiding the trail over obstacles like ledge outcroppings, and very stony areas. An excellent reference which should be consulted prior to any trail work is the "AMC Field Guide to Trail Building and Maintenance" (R.D. Proudman, Appalachian Mountain Club, Boston, Mass. 1977).

Another area where soil erosion could be significant is that portion of Gunners Road south of the existing buildings on-site. Any disturbance of the soil in this steep slope area, as in the construction of an improved road, will require stringent erosion and sediment controls to mitigate environmental harm.

#### D. Vegetation

##### TIMBER HARVEST

At the time of the field review (Nov. 14, 1979) a portion of Stand A (accessible and operable areas) had been marked for a timber harvest. On the average, 3/5ths of the total volume of sawlog size trees had been marked, leaving poor quality and cull\*sawlog size trees in the residual stand along with trees not yet large enough to produce sawlogs.

A harvest of this nature, although maximizing profits while still leaving the area with a forested appearance, will, in the long run lower the health and aesthetics of the area. The poor quality and cull trees left in the stand use valuable space which might best be used by trees with more potential. These low quality trees are also less stable over time, less aesthetic, and are more susceptible to damage by forest insects, disease and adverse weather conditions.

The nature trail which is proposed for this property passes through the harvest area in Stand A. For many years after the harvest this part of the trail will not be very attractive. The impact will be greatest where the majority of the high quality trees are removed and the low and poor quality trees are left in the residual stand.

Utilization of the tree tops left on the ground after the timber sale for fuelwood will greatly improve the aesthetics of the harvested area. In general, one-half cord of fuelwood in tops will be generated for each 1000 board feet of timber harvested. These tops, if not owned by the logger under contract, could be sold on a wholesale or commercial basis. As a general guideline, the State of Connecticut sells tops after a timber harvest for four dollars per cord.

##### CAMP PROGRAM

The establishment of a nature trail system, along with the development of a limited number of picnic and camping areas will have some, but little, negative impact on vegetation.

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\*Cull trees = trees that will never produce sawlog material.

Soil compaction, mechanical root injury, direct trampling and vandalism, all brought about by increased use of this area, may reduce or eliminate ground cover vegetation and accelerate mortality of low vigor, unhealthy trees along the trails and near picnic and camping areas.

Loss of ground cover vegetation may reduce aesthetics and increase runoff, potentially causing accelerated erosion.

The establishment of well defined and clearly marked trails, picnicking spots, and camping areas should limit extensive soil compaction, root injury and trampling of herbaceous vegetation outside these areas. To avoid potential erosion problems trails should follow contours and avoid steeply sloped areas. Picnic areas and campsites should be located on well-drained soils with a slope of between 3 and 5 percent.

Education of the users of this camp through environmental workshops, guided tours, handouts and signs will help reduce vegetation loss through vandalism. Vandalism caused by uninvited visitors could be reduced by placing heavy duty gates at all key access points and also having a camp manager living on the property.

Soil compaction at picnic sites and camping areas may be reduced by spreading wood chips, crushed stone or cinders, several inches deep in these areas. Crushed stone and cinders are more expensive than woodchips, however, they will last much longer because they will not rot or be used for camp fire kindling or fuel.

Loss of some trees caused by soil compaction, even with the addition of woodchips, crushed stone or cinders is unavoidable. Dead trees and trees with large dead branches, which might become potential hazards to hikers, picnickers, and campers should be removed or have dead branches pruned.

#### INTENSIVE RECREATION AREA

In the west central portion of this property is a  $\pm$  10 acre area which is proposed to be used as the camp center. At present there are several cabins, a mess hall and bath house facility located in this area. All of these structures are in need of repair. Several new buildings are proposed for the future. Many of the trees in this area are sawlog size and in poor condition, with broken tops and large dead branches. These trees represent a hazard to camp users. Removal of about one-third of the total number of trees, focusing on removal of the dead, damaged and poor quality trees in this area will successfully reduce the potential of injury or damage caused by falling trees or branches.

A thinning in this area will also allow more sunlight to reach the small patch (one acre) of eastern white pine which is present near the cabins. These trees are still young enough to respond with accelerated growth by being released. Increased growth of these trees will improve the aesthetics of the area, and improve winter cover for wildlife.

#### E. Wildlife and Fisheries

Implementation of the proposed project is not expected to have a significant impact on either wildlife or fishery resources.



The proposed timber harvest on the tract will have a short-term beneficial impact on wildlife by increasing browse and cover in the harvested area. Ultimately this impact will diminish as the woods "grow up" following the harvest. Cutting smaller wooded areas at regular intervals would be more beneficial to wildlife than the current plan of harvest. Under this alternate plan, a greater diversity of vegetation (age classes and species) would be created which would enhance wildlife habitat in the area.

#### F. Water Resources

For the most part, the proposed recreational development should have little effect on the site's water resources. In areas where vegetation, particularly trees, is planned to be removed, runoff may increase. The presently proposed layout for camp facilities (playing field, tennis and basketball courts, etc.) suggests that the greatest runoff increases would be in the two drainageways just east of Gunnars Road (see Figure 7). Such increases may cause erosion of the drainageways and siltation in the lake. These effects could be mitigated by placement of stones as rip-rap in the sections of the drainageways closest to the cleared areas, as well as in the steepest sections.

Placement or expanded use of septic systems in the cabin areas may have deleterious effects on groundwater quality. Since bedrock is close to the surface in that area, inadequate renovation of septic effluent by the thin soil is possible and perhaps likely. For this reason, extreme care would be required in installing a new septic system or in upgrading the present system, if necessary. If a new bedrock well is to be used, it should be located as far as is practically possible from the leaching fields and, preferably, to the northeast of the septic system.

#### V. UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS

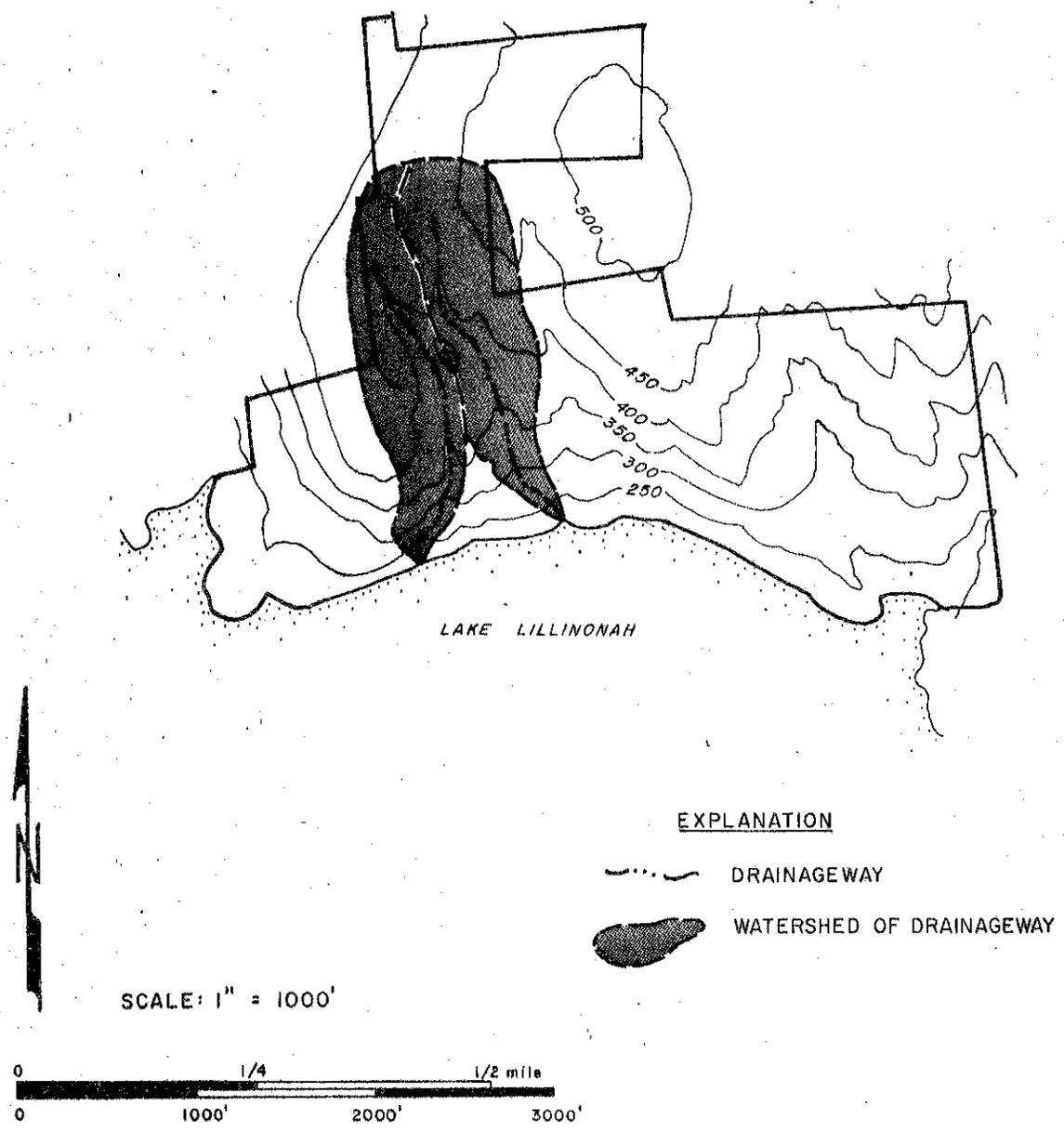
A preliminary cultural resource study of the Pearl Street tract indicates that the site has been occupied by both prehistoric and historic populations. Increased public knowledge of and access to extant sites resulting from implementation of the project represents a threat to cultural resources. In fact, in the absence of state statutes and park regulations, there is little chance of controlling vandalism at the cultural resource sites. As a result, it is recommended that a plan be developed to mitigate the effects of the project on cultural resources. It should be noted that an intensive evaluation of the archaeological and historical potential of the tract is required by federal preservation law since the project would be a "federally assisted and financed action". The Pearl Street Community Center is therefore required, by preservation law, to more fully evaluate the impact of their project on the cultural resource base.

An increase in runoff from the clearing operations and from the establishment of impermeable surfaces (such as the tennis courts) on the site seems inevitable. These runoff increases may not lead to erosion problems in areas that will remain wooded, but increased erosion in the two drainageways immediately east of Gunnars Road (see Figure 7) may occur. Some measures should be used to slow the flow of water in those drainageways during periods of heavy rainfall in order to mitigate the erosive force of the flow.

A portion of the mixed hardwood forest on the Pearl Street tract has already been marked for a timber sale. With removal of the marked trees, poor quality and cull trees will dominate the residual stand and the aesthetics and

# FIGURE 7 CRITICAL DRAINAGEWAYS MAP \*

\* DRAINAGEWAYS LIKELY TO BE MOST AFFECTED BY RUNOFF INCREASES



the health of the forest in this area will be adversely affected. With implementation of the proposed camp program, loss of some vegetation cannot be completely avoided. The vegetation that will be eliminated by trail, picnic areas, and campsite development will be slight, however, when compared to other development of a more intensive nature.

#### VI. SHORT-TERM USE vs. LONG-TERM PRODUCTIVITY

The proposed camp program, as a low intensity recreational use of a natural area, should have little measureable impact on the long-term productivity of the site. Compared with similar passive recreation proposals, this proposal involves a minor disturbance of the natural environment. Adverse environmental impacts will be negligible if the aforementioned mitigating measures are implemented. As an outdoor experience for urban residents and natural land laboratory for environmental education, this proposal has a significant potential for fostering environmental awareness and providing healthy outdoor recreation opportunities for present and future generations.

#### VII. IRREVERSIBLE COMMITMENTS OF RESOURCES

The only irreversible commitment of a valuable natural resource that is possible under this proposed plan would be the mining of gravel from the present beach area. This gravel may be used as fill in the cabin area or in improving the steep access road to the beach. Because the resource is quite limited in extent, it is not likely to have much commercial value outside the site.

A preliminary cultural resource study of the Pearl Street tract indicates the site has been occupied by both prehistoric and historic populations. Passive recreational use of this site represents a threat to cultural resources with increased public knowledge and access to extant sites. Vandalism at these sites could destroy important archaeological and historic resources.

#### VIII. ALTERNATIVES TO THE PROPOSED ACTION

Possible alternatives to the proposed camp include other recreational uses such as a park or a more intensely developed sports facility. However, assessment of the existing needs has led Pearl Street to believe that a camp is the most desirable use for the property, both in terms of the lack of adequate camps in the area and in terms of the long-term preservation of the property in its natural state.

#### IX. CONSULTATION AND COORDINATION

As of this date (November, 1979), the general public has not been involved in the planning of the Pearl Street Camp. It is Pearl Street's understanding that since the property is privately owned as an existing, although underutilized camp, and since the Town of Southbury is not being asked to allocate any funds toward the camp's development, that it is not necessary to involve the public in the decision-making process. However, as has been the case with its other programs, Pearl Street makes it a policy to involve a wide spectrum of the public in its activities and the residents of Southbury and surrounding towns will be informed of the available programs, once the camp is operational, and will be encouraged to participate in them.

Thus far, the Town of Southbury's Recreational Director has been informed of the plans for a camp and has toured the camp property with Pearl Street staff and the Environmental Review Team. The First Selectman of the Town of Southbury has also been informed of the plans. It is Pearl Street's intention to work closely with town officials and agencies wherever this is necessary to comply with local regulations and in order to develop the camp so that it becomes a valuable and positive aspect of the Town's land use.

At this point, no other public agency has evaluated the potential environmental consequences of the project. However, a natural resource inventory with recommendations for management of the camp property was prepared in 1977 by two graduate students from the Yale School of Forestry and the plans for camp development will utilize the information contained in their report.

Since the development of the property as a camp would, to a great degree, preserve the present natural state of the property, Pearl Street expects no significant controversy related to the environmental impact of the plans.

## X. ADDITIONAL RECREATION CONSIDERATIONS

A number of questions were raised during the ERT's field review regarding the potential of the site for various recreational activities. The following discussion addresses some of those questions and provides some guidance on future recreational development of the tract.

### 1. SWIMMING

The existing beach on the site (see Figure 1) has been closed by Pearl Street due to previous accidents and unsafe conditions (i.e. strong water current and steep bottom gradient). It probably would not be technically or environmentally feasible to fill and breakwater the existing water area to make the site more suitable for swimming. Excavating the existing sunbathing site to create a larger swimming area also does not appear feasible. This alternative would be expensive, create additional soil stabilization problems, and leave a very small beach area.

The alternate beach site (see Figure 2), offers even less potential due to the steep topography surrounding the area.

Any consideration of developing a quality waterfront experience and the related price tag should consider the water quality of the site. Lake Lillinonah typically experiences algal bloom and debris problems, and at times the impoundment has also had coliform counts exceeding safe standards for swimming.

An artificial pool is an alternative Pearl Street might wish to consider. Although expensive, a constructed pool would offer the advantage of controlled water quality and quantity; and access would be easier to provide.

It is a relatively widely held conviction that for a summer recreation site to be truly viable, it must provide for swimming activity.

## 2. OTHER WATERFRONT ACTIVITY

The slope to the water over much of the property severely limits fishing potential. The problems include difficult terrain for fishermen to travel, erosion potential and lack of casting sites. The original beach is an exception to this general "steep slope" condition and this area does offer good potential for fishing. It should be noted that the persistence of PCB pollutants in the fish and river system negate the value of the lake as a food source.

Boating access points for the shore are also limited (again except for the original beach).

## 3. INTERNAL ACCESS

Vehicular access on Gunnars Road from Kuhne Road to the area of the existing buildings is fair and should not be difficult to upgrade for the proposed land use. Access from the buildings to the existing beach however is poor and the terrain in this area severely limits the possibilities of creating a satisfactory road for vehicles. The failure of the existing road to the beach area is indicative of the problems associated with road construction on steep slopes. In addition to steep slopes, this area is limited by shallow to bedrock conditions. These limiting factors will be difficult and expensive to overcome.

Despite the difficulty in establishing access to the beach area, vehicular access to the beach is considered important for safety reasons if the area is intensively used. If use of the beach is restricted to passive purposes, however, the need to build a road to the waterfront would be significantly decreased. For example, if an artificial pool was constructed inland, and the beach was only used for fishing, occasional camp fires etc., a vehicular access road to the beach would probably not be necessary.

## 4. PLAYFIELDS

The existing playfield measures about 330 feet x 330 feet and is of sufficient size to create a combination softball/football field. The land south of the playing field is generally suitable for the proposed tennis courts and basketball courts, although filling and drainage controls will be necessary.

## 5. BUILDINGS AND OTHER FACILITIES

The existing buildings have been vandalized and are in poor repair. There is some question of their original suitability. Parts of the construction are probably not up to building code specifications and therefore unsafe. The existing "infirmary" did not appear to have any water or sanitary facilities. The existing "kitchen-dining hall" did not have any provision for cooking or cleanup. The team was unable to inspect the toilet building as no keys were available during the review. The question of increased on-site septic disposal and water supply needs should also be explored. An attractive area with some potential for cabin expansion was viewed (the area of proposed cabins in Figure 2) but it appears as though initial attention would have to be directed to rebuilding existing structures.

## 6. NATURE AND HIKING TRAIL

As noted during the site visit, any trail for hiking would have to be

located some significant distance back from the water to limit erosion and the danger of slipping on the steep slopes. A nature interpretive trail should be located only after a careful inventory of the entire property. In addition to the normal concerns of trail design, it should be planned to reach significant natural sites and provide as much biological diversity as possible.

#### 7. CANOE CAMPING

The State Department of Environmental Protection issues permits to non-profit youth organizations for canoe camping at George Waldo State Park. This Park is located just downstream of the Pearl Street property and its camping/canoe opportunities could compliment those offered by Pearl Street. No camping is permitted in the Paugussett State Forest on the opposite (Newtown) shore.

#### 8. GENERAL COMMENTS

The Pearl Street organization should definitely pursue resolution of their apparent title and boundary questions in the south eastern portion of the property.

The State Health Department (Environmental Health Services Section, 566-5646, Hartford) which licenses public camp operations should be consulted as to their requirements and suggestions prior to formal plan development.

As planning continues, the group should clearly consider the economic consequences of their development proposals relative to demand and alternatives. This includes not only development but operation, security and maintenance costs as well.

While the situation has not been evaluated, Pearl Street might explore a liason with the YMCA involving cooperative use of their adjoining facilities.

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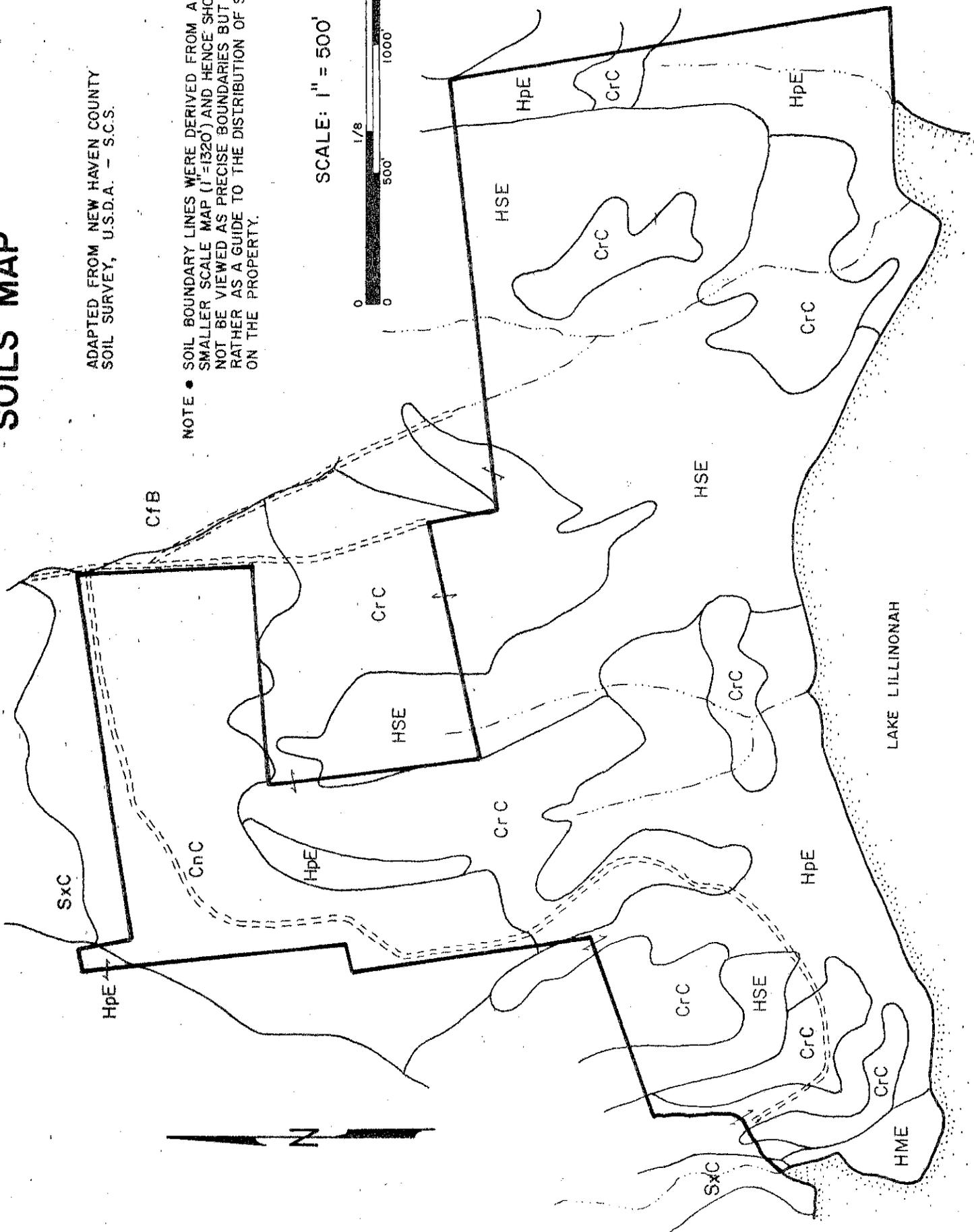
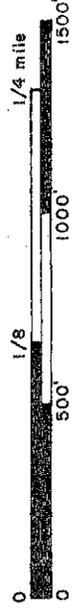
**APPENDIX**

# SOILS MAP

ADAPTED FROM NEW HAVEN COUNTY  
SOIL SURVEY, U.S.D.A. - S.C.S.

NOTE • SOIL BOUNDARY LINES WERE DERIVED FROM A  
SMALLER SCALE MAP (1" = 1320') AND HENCE 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 - PEARL STREET PROPERTY

SOUTHBURY, CT.

BUILDINGS  
WITH  
BASEMENTS

MAP SYMBOL	SOIL NAME	CAMP AREAS	PICNIC AREAS	PLAYGROUNDS	PATHS & TRAILS	BUILDINGS WITH BASEMENTS
CfB	Charlton fine sandy loam, 3-8% slopes	Slight	Slight	Moderate, Slope	Slight	Slight
ChC	Charlton very stony fine sandy loam, 8-15% slopes	Moderate, Large stones, slope	Moderate, Slope	Severe, Slope	Moderate, Large stones	Moderate, Large stones
CnC	Charlton extremely stony fine sandy loam, 3-15% slopes	Severe, Large stones	Severe, Large stones	Severe, Large stones, Slope	Severe, Large stones, Slope	Severe, Large stones
CrC	Charlton-Hollis fine sandy loam, 3-15% slopes	Severe, Large stones	Severe, Large stones	Severe, Slope, Large stones	Severe, Large stones	Severe, Large stones
HmE	Hinckley & Manchester soils, 15-35% slopes	Severe, Slope	Severe, Slope	Severe, Slope, Small stones	Severe, Slope	Severe, Slope
HsE	Hollis-Rock Outcrop complex, 15-35% slopes	Severe, Slope, Large stones	Severe, Slope, Large stones	Severe, Slope, Large stones, & Depth to rock	Severe, Slope, Large stones	Severe, Slope, Depth to rock, Large stones
HpE	Hollis Charlton fine sandy loam, 15-35% slopes	Severe, Slope, Large Stones	Severe, Slope, Large stones	Severe Slope, Large stones, Depth to rock	Severe, Slope, Large stones	Severe, Slope, Large stones, Depth to rock
SxC	Sutton extremely stony fine sandy loam, 3-15% slopes	Severe, Large stones, Slope	Moderate, Large stones, Slope	Severe, Large stones, Slope	Severe, Large stones, Slope	Severe, Large stones, Slope

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

EXPLANATION OF RATING SYSTEM:

## SOIL DESCRIPTION

CfB -- Charlton fine sandy loam, 3 to 8 percent slopes.

This gently sloping, well drained soil is on broad hilltops, ridge tops, and glacial till plains. Slopes are smooth and convex, and are up to 500 feet long. The areas are dominantly irregular in shape and are mostly 5 to 80 acres in size.

Typically, the surface layer is dark brown fine sandy loam 8 inches thick. The subsoil is yellowish brown and light olive brown fine sandy loam 18 inches thick. The substratum, to a depth of 60 inches, is grayish brown, gravelly fine sandy loam that has a few firm lenses up to 4 inches thick.

Included with this soil in mapping are small intermingled areas, generally less than 1 acre in size, of moderately well drained Sutton and Woodbridge soils, well drained Paxton soils, and somewhat excessively drained Hollis soils. A few small areas have stones and boulders on the surface. In a few areas in West Haven and Guilford, the soils have a redder color in the substratum. Included areas make up 5 to 15 percent of this map unit.

Permeability is moderate or moderately rapid. This soil has a high available water capacity. Runoff is medium. This soil tends to dry out and warm up fairly early in spring. It has a low shrink-swell potential. Unless limed, this soil is very strongly acid through medium acid.

In most areas, this soil is used for hay and corn. In a few areas it is used for vegetables, nursery stock, and orchards. A significant and rapidly increasing acreage is in community development or is idle. The remaining acreage is woodland.

This soil has good potential for community development. It is fairly easy to excavate but commonly has stones and boulders. Waste disposal systems such as onsite septic systems generally function satisfactorily with normal design and installation. This soil has good potential for 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. Good tilth is easy to maintain. The hazard of erosion is moderate, and controlling runoff and erosion is a major concern. Maintaining good fertility and good organic matter content are also concerns. If this soil is cultivated, minimum tillage, use of cover crops, and including grasses and legumes in the cropping system can help reduce runoff and control erosion. Stones and boulders near the surface are an annoyance when using some tillage equipment.

This soil is well suited to trees. Most of the soil was once cropland, but few areas have been left to grow back to woodland. Productivity is moderate. Machine planting is practical in open areas. Trees to favor in existing woodlots are eastern white pine, red maple, and northern red oak. Trees to plant in open areas are eastern white pine, European larch, white spruce and eastern hemlock.

SOIL DESCRIPTION

CfB -- Charlton fine sandy loam, 3 to 8 percent slopes. Page 2

The included soils are not so well suited to community developments. They have poor potential for onsite septic systems; the Paxton soils because of a slowly permeable substratum, the Sutton soils because of a seasonal high water table, the Hollis soils because of bedrock at a depth of 10 to 20 inches, and the Woodbridge soils because of a seasonal high water table at a depth of about 20 inches and a slowly permeable substratum. Capability subclass 1le; woodland suitability subclass 4o.

## SOIL DESCRIPTION

ChC -- Charlton very stony fine sandy loam, 8 to 15 percent slopes.

This sloping, well drained soil is on side slopes of hills and ridges and at the foot slopes of steep slopes where the relief is affected by the underlying bedrock. Up to 3 percent of the surface is covered with stones and boulders. Slopes are smooth and convex and mostly less than 300 feet long. The areas are dominantly irregular, rectangular, or long and narrow in shape and are mostly 5 to 35 acres in size.

Typically, the surface layer is dark brown fine sandy loam 6 inches thick. The subsoil is yellowish brown and light olive brown fine sandy loam 20 inches thick. The substratum, to a depth of 60 inches, is grayish brown gravelly fine sandy loam that has a few firm lenses up to 4 inches thick.

Included with this soil in mapping are small intermingled areas, generally less than an acre in size, of well drained Paxton soils and somewhat excessively drained Hollis soils. A few small areas do not have stones and boulders on the surface. Included areas make up 5 to 15 percent of this map unit.

Permeability is moderate or moderately rapid. The available water capacity is high. Runoff is rapid. This soil tends to dry out and warm up fairly early in spring. It has low shrink-swell potential. Unless limed, it is very strongly acid through medium acid.

Most areas of this soil were once cleared and used for crops or pasture. Many stones and smaller boulders were removed leaving only the larger stones and boulders in many places. Most areas have reverted to woodland or are idle. A small acreage is used for pasture. A significant and rapidly increasing acreage is in community developments.

This soil has fair potential for community development. It is limited mainly by the steepness of slope and stoniness. This soil is fairly easy to excavate, but it commonly contains stones and boulders below the surface as well as on the surface. Waste disposal systems such as onsite septic systems need careful design and installation to insure that effluent does not seep to the surface downslope from the disposal system. Stones and boulders may interfere with the installation of the systems and with landscaping. Rather intensive conservation measures are needed to prevent excessive runoff, erosion, and siltation during periods of construction of community developments.

This soil is poorly suited to cultivated crops because of stoniness. Stone removal is costly. This soil is suited to grasses and legumes; however, the stones and boulders interfere with harvesting and planting equipment. It has a severe erosion hazard, which is a major concern of management, and if the soil is cultivated it needs intensive conservation measures to control runoff and erosion.

This soil is suited to trees. Productivity is moderate. The stones and boulders somewhat hinder the use of harvesting and planting equipment; however, machine planting is feasible in open areas. Trees to favor in existing stands

SOIL DESCRIPTION

ChC -- Charlton very stony fine sandy loam, 8 to 15 percent slopes. Page 2

are eastern white pine, red maple, and northern red oak. Trees to plant in open areas are eastern white pine, European larch, white spruce, and eastern hemlock.

The included Paxton and Hollis soils have severe limitations for onsite septic systems; Paxton soils have a slowly permeable substratum and Hollis soils have bedrock at a depth of 10 to 20 inches. Capability subclass V1s; woodland suitability subclass 4o.

## SOIL DESCRIPTION

CnC -- Charlton extremely stony fine sandy loam, 3 to 15 percent slopes.

This gently sloping and sloping, well drained soil is on broad hilltops, ridgetops, glacial till plains, and at the foot of steep slopes where relief is affected by the underlying bedrock. About 3 to 25 percent of the surface is covered with stones and boulders. Slopes are mostly smooth and convex and mostly less than 400 feet long. The areas are dominantly irregular or rectangular in shape and are mostly 5 to 80 acres in size.

Typically, the surface layer is dark brown fine sandy loam 2 inches thick. The subsoil is dark brown and light olive brown fine sandy loam 24 inches thick. The substratum, described to a depth of 60 inches, is grayish brown, gravelly fine sandy loam with a few firm lenses up to 4 inches thick.

Included with this soil in mapping are small intermingled areas, generally less than an acre in size, of moderately well drained Sutton and Woodbridge soils, well drained Paxton soils, and somewhat excessively drained Hollis soils. A few small areas have fewer stones and boulders on the surface. The included areas make up 5 to 15 percent of this map unit.

This soil has moderate or moderately rapid permeability. It has high available water capacity. Runoff is medium to rapid. This soil tends to dry out and warm up fairly early in spring. It has low shrink-swell potential. Unless limed, it is very strongly acid through medium acid.

Most of this soil is in woodland. A small acreage is cleared and used for pasture; some areas are idle. A rapidly increasing acreage is being used for community developments.

This soil has fair potential for community development. It is limited mainly by stoniness and, in places, the steepness of the slope. Removal of stones and boulders is costly. Waste disposal systems such as onsite septic systems can function satisfactorily; however, stones and boulders hinder their installation. If a disposal system is placed on the steeper slopes, careful design and installation will be needed to prevent effluent from seeping to the surface downslope. Stoniness severely limits this soil for landscaping; however, large boulders are sometimes desired for their esthetic value and are left undisturbed. During periods of construction of community developments, conservation measures are needed to prevent excessive runoff, erosion and siltation.

This soil is poorly suited to crops because of its stoniness. The stones and boulders are costly to remove, and the use of modern farming equipment is not feasible without their removal. The hazard of erosion is moderate to severe. Conservation measures such as permanent vegetation to control runoff and erosion are needed if this soil is cleared and farmed.

This soil is suited to trees. Productivity is moderate. The stones and boulders somewhat hinder the use of some harvesting equipment and make machine planting generally unfeasible. Trees to favor in existing woodlots are eastern white pine, northern red oak, and red maple. Trees to plant

## SOIL DESCRIPTION

CnC -- Charlton extremely stony fine sandy loam, 3 to 15 percent slopes.

in open areas are eastern white pine, European larch, white spruce, and eastern hemlock.

The included soils are not so well suited to community development as this Charlton soil. They have poor potential for onsite septic systems: Paxton soils because of a slowly permeable substratum, Sutton soils because of a seasonal high water table, Woodbridge soils because of a seasonal high water table and a slowly permeable substratum, and Hollis soils because of bedrock at a depth of 10 to 20 inches. Capability subclass Vlls; woodland suitability subclass 4x.

## SOIL DESCRIPTION

### CrC -- Charlton-Hollis fine sandy loams, 3 to 15 percent slopes.

This complex consists of gently sloping and sloping, well drained soils on uplands where the relief is affected by the underlying bedrock. Slopes are concave or convex and mostly 50 to 300 feet long. The areas have a rough surface with bedrock outcrops and a few narrow intermittent drainageways and small wet depressions. In most areas, 3 to 25 percent of the surface is covered with stones and boulders. The areas are mostly 5 to 125 acres in size. Approximately 45 percent of these areas is Charlton fine sandy loam, 30 percent is Hollis fine sandy loam, and about 25 percent is other soils.

The Charlton and Hollis soils are in such a complex and intermingled pattern that they could not be separated in mapping. The typical Charlton soil has a dark brown fine sandy loam surface layer 2 inches thick. The subsoil is dark brown, yellowish brown, and light olive brown fine sandy loam 24 inches thick. The substratum, to a depth of 60 inches, is grayish brown, gravelly fine sandy loam that has a few firm lenses up to 4 inches thick. The typical Hollis soil has a very dark brown fine sandy loam surface layer 3 inches thick. The subsoil is dark brown fine sandy loam 11 inches thick, and it overlies hard, unweathered schist bedrock.

Included with this complex in mapping are small areas, generally less than 1 acre in size, of moderately well drained Sutton soils, well drained Paxton soils and Agawam soils, and poorly drained Leicester soils. In a few areas the stones and boulders have been cleared. Also included are many small and intermingled areas where the bedrock is 20 to 40 inches from the surface. Included areas make up 5 to 20 percent of this map unit.

The Charlton soil has moderate or moderately rapid permeability. It has a high available water capacity. Runoff is medium to rapid. This soil has a low shrink-swell potential. The Hollis soil has moderate or moderately rapid permeability above the bedrock. It has a low available water capacity. Runoff is medium to rapid. Both soils are very strongly acid through medium acid, if they are not limed.

Most of this complex is in woodland. Cleared areas are mainly used for pasture or are idle. Only a few areas are used to grow hay. A significant and rapidly increasing acreage is being used for community development.

This complex has fair to poor potential for community development. The Charlton soil has fair potential for community development. It is mainly limited by the steepness of slopes and stoniness. The Hollis soil has poor potential for community development. It is limited mainly by the bedrock at a depth of 10 to 20 inches. Excavations are often difficult on this soil complex because of the shallowness to bedrock in many places. Very careful planning, site location, design, and installation are necessary to insure that onsite waste disposal systems function satisfactorily.

Many areas of this complex provide a scenic and picturesque setting for homesites. Outcrops, stones, and boulders are often left undisturbed for their esthetic value. In many places they provide a creative opportunity for the unusual design of homes or other structures.

During construction of community developments, conservation measures such as temporary vegetation and siltation basins are frequently needed to



## SOIL DESCRIPTION

CrC -- Charlton-Hollis fine sandy loams, 3 to 15 percent slopes.

prevent excessive runoff, erosion and siltation.

This soil complex is poorly suited to crops because of the shallowness to bedrock, rock outcrops, and stoniness that hinder the use of farming equipment. Areas cleared of stones and boulders can be used to grow hay, however, the Hollis part of the complex is droughty, and the rock outcrops generally hinder the use of harvesting equipment. Controlling runoff and erosion is a major concern of management, particularly on the Hollis soil, which is only 10 to 20 inches deep to bedrock.

This soil complex is suitable for growing trees. Most of this complex is presently in woodland. The Charlton soil has moderate productivity. The Hollis soil has low productivity because of severe hazard of seedling mortality and a moderate hazard of tree windthrow caused by the shallow rooting zone above the bedrock. Machine planting is somewhat difficult but feasible in areas without stones and boulders; however, it is not feasible in most areas because of the stoniness, rock outcrops and shallowness to bedrock. Trees to favor in existing woodlots are eastern white pine, northern red oak, sugar maple and red maple. Trees to plant are eastern white pine, white spruce, European Larch, and eastern hemlock.

The included Sutton, Leicester, and Paxton soil have fair to poor potential for onsite septic systems; Sutton and Leicester soils because of a seasonal high water table, and Paxton soils because of a slowly permeable substratum. The included Agewam soils have good potential for onsite septic systems. The areas with bedrock at a depth of 20 to 40 inches have poor potential for onsite septic systems. Capability subclass V1s; woodland suitability subclass: Charlton part 4x; Hollis part 5d.

## SOIL DESCRIPTION

HME -- Hinckley and Manchester soils, 15 to 35 percent slopes.

This map unit consists of moderately steep to very steep, excessively drained soils on outwash terraces. These soils are on breaks at the edge of terraces, along ravines, and in steep areas where the terrace joins the glacial till uplands. Slopes are smooth and mostly less than 300 feet long. The areas are dominantly long and narrow in shape. They are mostly 3 to 50 acres in size. Approximately 65 percent of the total acreage is Hinckley soils and other similar soils and about 35 percent is Manchester Soils and other similar soils.

The more extensive areas of Hinckley soils are in the eastern and western parts of the county. The redder colored Manchester soils are in the central part of the county. These soils were not separated in mapping because they react similarly to expected uses. The Hinckley soil typically has a dark brown gravelly sandy loam surface layer 3 inches thick. The upper part of the subsoil is strong brown gravelly sandy loam 10 inches thick, and the lower part is brown gravelly loamy sand 3 inches thick. The substratum, to a depth of 60 inches, is yellowish brown stratified sand and gravel. The Manchester soil has a reddish brown gravelly sandy loam surface layer 3 inches thick. The upper part of the subsoil is yellowish red gravelly sandy loam 7 inches thick, and the lower part is yellowish red gravelly loamy sand 6 inches thick. The substratum, to a depth of 60 inches, is reddish brown very gravelly sand.

Included with these soils in mapping are areas, up to 5 acres in size, of other soils. Included with the Hinckley soil are the well drained Agawam and Charlton soils and a few small bedrock outcrops. Also included are a few small areas of soils that are not so gravelly. Included with the Manchester soil are the well drained Branford and Cheshire soils, the excessively drained Penwood soils, and a few small bedrock outcrops. Also included in this map unit are Podunk, Rumney, and Saco soils in small areas that are mainly less than 50 feet wide along streams in ravines and very narrow valleys. A few areas include slopes that are as much as 80 percent.

The Hinckley and Manchester soils have rapid permeability in the surface layer and subsoil and very rapid permeability in the substratum. Runoff is rapid. The available water capacity is low. Unless limes, these soils are medium acid through very strongly acid.

The soils of this unit are mostly wooded. A few areas are idle or are cleared and used for pasture. A small acreage is being used for community development.

The soils of this unit have poor potential for community development. They are limited mainly by the steep slopes. These soils are easy to excavate; however, the steep slopes of excavations are unstable. Waste disposal systems, such as septic tank absorption fields, need 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. Because of the very rapidly permeable substratum, care must be taken in some areas to prevent the pollution of ground water. The soils in this unit can provide sites for unusually designed buildings or houses. Intensive conservation measures generally are needed to prevent excessive runoff, erosion, and siltation during periods of construction.

## SOIL DESCRIPTION

HME -- Hinckley and Manchester soils, 15 to 35 percent slopes.

The soils in this unit are poorly suited to crops because of the steep slopes. A few areas can be used to grow hay. The hazard of erosion is severe, and these soils should be kept in permanent vegetative cover.

These soils are not well suited to trees because they are droughty; however, this may be one of the best uses of these soils. Productivity is low. The droughtiness makes the establishment of tree seedlings difficult. The steep slopes hinder the use of most harvesting and planting equipment. Trees to favor in existing woodlots are eastern white pine and northern red oak. Trees to plant in open areas are eastern white pine and European larch.

The included Agawam, Charlton, Branford, Cheshire, and Penwood soils have similar limitations for community development because of their steep slopes. The included Podunk, Rumney, and Saco soils have poor potential for septic tank absorption fields because they have a high or seasonally high water table all or part of the year and are subject to flooding. Capability subclass VIIc; woodland suitability subclass 5s.

## SOIL DESCRIPTION

HpE -- Hollis-Charlton fine sandy loams, 15 to 35 percent slopes.

This map unit consists of moderately steep and steep, somewhat excessively drained and well drained soils on uplands where the relief is affected by the underlying bedrock. Slopes are concave or convex and are mostly 100 to 800 feet long. The areas have a rough surface and bedrock outcrops, a few narrow intermittent drainageways, and small wet depressions. In most areas, 3 to 25 percent of the surface is covered with stones and boulders. Approximately 40 percent of this map unit is Hollis fine sandy loam, 35 percent is Charlton extremely stony fine sandy loam, and about 25 percent is other soils and rock outcrops. The areas dominantly are long and narrow or irregular in shape and 3 to 200 acres in size.

The Hollis and Charlton soils are so intermingled on the landscape that they could not be separated in mapping. The typical Hollis soil has a very dark brown fine sandy loam surface layer 3 inches thick. The subsoil is dark brown fine sandy loam 11 inches thick, and it overlies hard, unweathered schist bedrock. The typical Charlton soil has a dark brown fine sandy loam surface layer 2 inches thick. The subsoil is dark brown, yellowish brown, and light olive brown fine sandy loam 24 inches thick. The substratum, to a depth of 60 inches, is grayish brown gravelly fine sandy loam that has a few firm lenses up to 4 inches thick.

Included in mapping are small areas, generally less than 1 acre in size, of well drained Paxton soils, the moderately well drained Sutton and Woodbridge soils, and soils that have bedrock at a depth of 20 to 40 inches. Most areas are 5 to 15 percent bedrock outcrops. Included soils make up 10 to 25 percent of this map unit.

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

Most areas of this map unit are woodland. Only a small acreage has been cleared. Cleared areas are used for pasture or for orchards or are idle. An increasing acreage is used for community development.

This map unit has poor potential for community development. It is limited mainly by steep slopes, shallowness to bedrock, rock outcrops, and stoniness. Excavation is difficult because of the shallowness to bedrock in many places. Waste disposal systems, such as septic tank absorption fields, require very careful and often unusual design and installation to ensure that effluent does not seep to the surface in areas downslope from the leaching system. Sites of more than 2 acres are often needed to locate a sufficiently deep soil for installation of a septic tank absorption field. In addition, there is 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. This complex is severely limited for landscaping; however, rock outcrops, stones and boulders are often desired for their esthetic value and are left undisturbed. Areas of this map unit provide an opportunity for the creative design of homes and other structures. During periods of construction, intensive conservation measures, such as the use of diversions, vegetative cover, mulching, and siltation basins are frequently needed to prevent excessive runoff, erosion and siltation.

## SOIL DESCRIPTION

HpE -- Hollis-Charlton fine sandy loams, 15 to 35 percent slopes.

This map unit is poorly suited to crops. The steep slopes, shallowness to bedrock, rock outcrops, and stoniness severely restrict the use of farming equipment. Even areas cleared of stones are poorly suited to crops. The Hollis soil is droughty.

This map unit is not well suited to trees; however, woodland may be one of its best uses. The Hollis soil has low productivity. Seedling mortality is severe because the Hollis soil does not have enough moisture during dry periods to sustain seedlings. Windthrow of the larger trees is common because the rooting depth is shallow. The Charlton soil has moderate productivity. Care must be taken in laying out logging roads and trails to prevent erosion. The slopes restrict the use of many kinds of equipment. Machine planting of trees generally is not feasible. Trees to favor in existing woodlots are eastern white pine, northern red oak, and sugar maple. European larch, white spruce, eastern hemlock and eastern white pine are suitable trees for planting on the Charlton soil.

The included soils have poor potential for septic tank absorption fields. The Paxton soils are limited by a slowly permeable substratum, and the Sutton soils by the seasonal high water table at a depth of about 20 inches. The potential is also poor where bedrock is at a depth of 20 to 40 inches. Capability subclass Vlls; woodland suitability subclass: Hollis soil 5d, Charlton soil 4x.

## SOIL DESCRIPTION

### HSE -- Hollis-Rock outcrop complex, 15 to 35 percent slopes.

This map unit consists of moderately steep and steep, somewhat excessively drained soils on uplands and areas of Rock outcrop. The relief is affected by the underlying bedrock. Slopes mainly are convex and 100 to 700 feet long. The areas have bedrock outcrops, a few narrow intermittent drainageways, and small wet depressions. In most areas, the surface is 3 to 25 percent stones and boulders. Approximately 50 percent of this unit is Hollis fine sandy loam, about 30 percent is Rock outcrop, and 20 percent is other soils. The areas dominantly are long and narrow or irregular in shape. Many of the small areas are oval in shape. Most areas are 3 to 70 acres in size.

The Hollis soil and Rock outcrop are so intermingled on the landscape that they could not be separated in mapping at the scale used. The composition of this unit is more variable than that of other map units in the survey area, but the mapping and interpretations will not affect the expected use of this unit. The typical Hollis soil has a very dark brown fine sandy loam surface layer 3 inches thick. The subsoil is dark brown fine sandy loam 11 inches thick and overlies hard unweathered schist bedrock. Rock outcrop is exposed hard bedrock.

Included with this unit in mapping are areas up to 5 acres in size of the well drained Charlton soils, areas where bedrock is at a depth of 20 to 40 inches, and small areas of the moderately well drained Sutton soils. A few areas have slopes ranging up to 100 percent. The included soils make up 10 to 20 percent of this map unit.

The Hollis soil has moderate or moderately rapid permeability above the bedrock. It has a low available water capacity. Runoff is rapid. This soil has a low shrink-swell potential. Reaction is medium acid through very strongly acid. Rock outcrop has very rapid runoff.

Nearly all areas of this unit are woodland. A few small cleared areas are idle or used for pasture. Only a few small areas are used for community development.

This map unit has poor potential for community development. It is limited mainly by the shallowness to bedrock, steep slopes, and rock outcrops. Excavation is difficult and requires blasting in many places. This map unit has poor potential for waste disposal systems. Septic systems generally require very unusual design and installation, and there is a hazard that they may fail or that effluent may seep into cracks in the bedrock and pollute ground water, which is a source of drinking water in many places. Areas of this map unit provide sites for the creative design of homes. If this map unit is disturbed for construction, intensive conservation measures such as mulching, temporary vegetative cover, and siltation basins are generally needed to control excessive runoff, erosion, and siltation.

This map unit is not suited to crops because of the steep slopes, rock outcrops, stoniness, and shallowness to bedrock.

## SOIL DESCRIPTION

HSE -- Hollis-Rock outcrop complex, 15 to 35 percent slopes.

This map unit is poorly suited to trees because of the shallowness to bedrock and the rock outcrops; however, woodland may be its best use. The Hollis soil has low productivity. Seedling mortality is severe because of droughtiness. Tree windthrow is a major problem because of the shallow rooting depth. The rock outcrops, stoniness, and steep slopes hinder the use of many kinds of harvesting equipment. Machine planting of seedlings is not feasible. Trees to favor in existing woodlots are eastern white pine, northern red oak, and sugar maple. Trees to plant are eastern white pine.

The included soils also have poor potential for septic tank absorption fields. The Charlton soils are limited by the steep slopes, the Sutton soils by the seasonal high water table at a depth of about 20 inches, and soils in other areas are limited by bedrock at a depth of 20 to 40 inches. Capability subclass VII<sub>3</sub>; woodland suitability subclass: Hollis part 5d; Rock outcrop part not rated.

## SOIL DESCRIPTION

SxC -- Sutton extremely stony fine sandy loam, 3 to 15 percent slopes.

This gently sloping and sloping, moderately well drained soil is in slight depressions on glacial till plains and near the base of slopes on glacial uplands where the relief is affected by the underlying bedrock. In most places this soil has slopes of less than 8 percent. It has 3 to 25 percent of the surface covered with stones and boulders. Slopes are mostly smooth and concave. They are generally 100 to 400 feet long. The areas are dominantly irregular in shape and are mostly 3 to 25 acres in size.

Typically, the surface layer is very dark grayish brown fine sandy loam 6 inches thick. The subsoil is dark brown and yellowish brown, mottled fine sandy loam 22 inches thick. The substratum, described to a depth of 60 inches, is brown and light olive brown fine sandy loam and gravelly fine sandy loam with a few firm lenses up to 4 inches thick.

Included with this soil in mapping are small intermingled areas, generally less than 1 acre in size, of well drained Charlton soils, moderately well drained Woodbridge and Ninigret soils, and poorly drained Leicester soils. A few small areas have fewer stones and boulders on the surface. The included areas make up 5 to 15 percent of this map unit.

This soil has a seasonal high water table at a depth of about 20 inches from late in fall until mid-spring. This soil has moderate or moderately rapid permeability. The available water capacity is high. Runoff is medium to rapid. This soil tends to dry out and warm up rather slowly 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.

Most areas of this soil are woodland. A small acreage is cleared and used for pasture, or it is idle. A rapidly increasing acreage is being used for community developments.

This soil has fair potential for community development. It is limited mainly by its seasonal high water table and stoniness. This soil is fairly easy to excavate but in many places has stones and boulders below the surface as well as on the surface. The seasonal high water table frequently inundates excavations. Particular attention needs to be given to houses with basements because the basements are generally below the depth of the water table. This results in wet basements unless the soil is drained. A few areas are subject to ponding for short periods in winter. Waste disposal systems, such as onsite septic systems, generally will not function satisfactorily with only normal design and installation because of the seasonal high water table. Very careful and often costly design and installation are required to insure that onsite septic systems function satisfactorily and that they are not flooded by the water table. This soil is severely limited for landscaping because of its stoniness; however, large boulders are sometimes desired for their esthetic value and are left undisturbed. Removal of stones and boulders is costly. This soil may be soggy for several days after heavy rains. During construction of community developments, conservation measures are needed to prevent excessive runoff, erosion, and siltation.



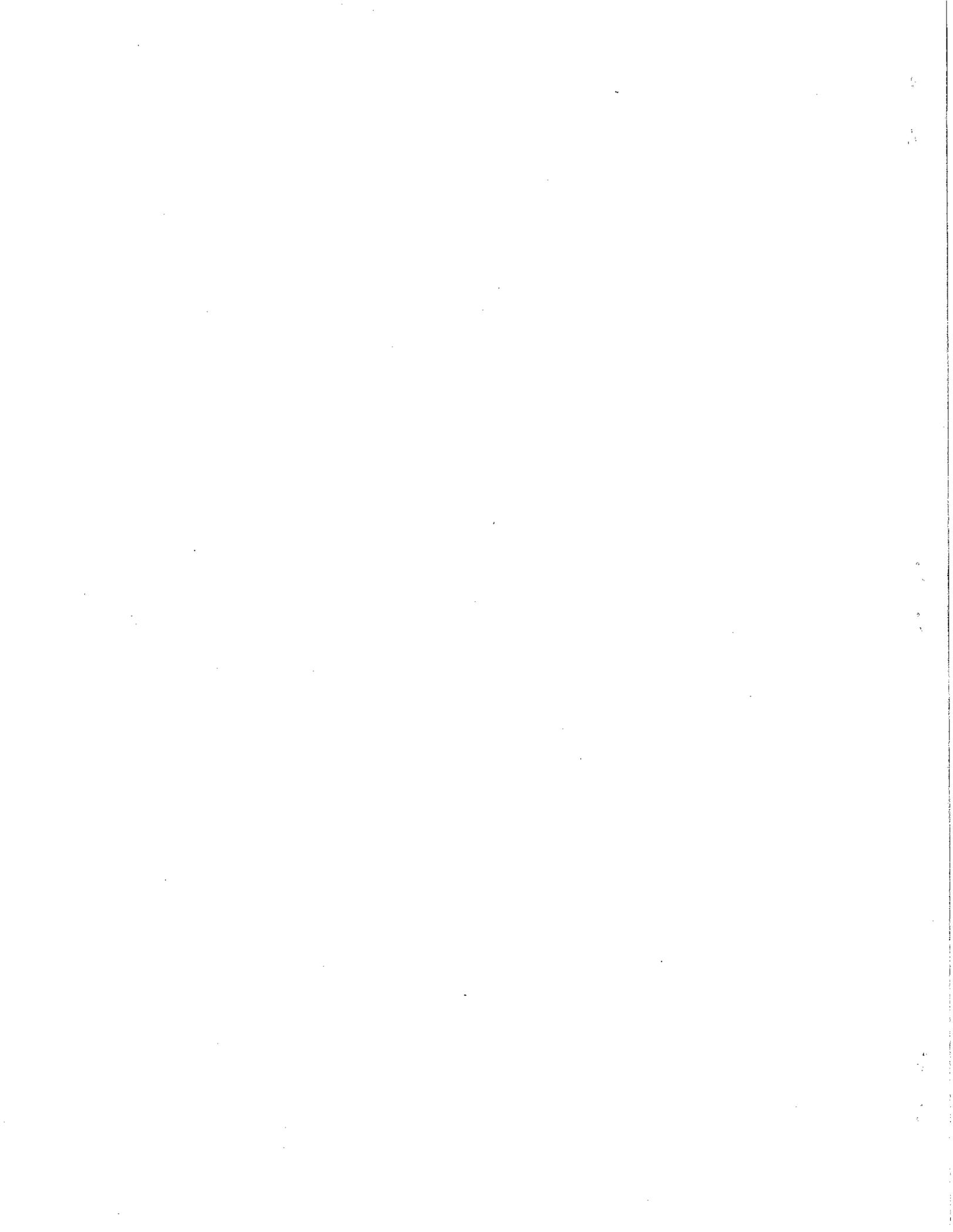
## SOIL DESCRIPTION

SxC -- Sutton extremely stony fine sandy loam, 3 to 15 percent slopes.

This soil is poorly suited to use as cropland because of its stoniness. The stones and boulders generally are very costly to remove, and the use of modern equipment for farming is not feasible without removing them. If cleared and used to grow crops, drainage is needed for good crop production. This soil has a moderate to severe erosion hazard and requires conservation measures such as permanent vegetation to control runoff and erosion.

This soil is suited to trees. Productivity is moderate. The stones and boulders somewhat hinder the use of some harvesting equipment and make machine planting generally not feasible. Trees to favor in existing woodlots are eastern white pine, sugar maple, northern red oak, and black cherry. Trees to plant in open areas are eastern white pine, European larch, white spruce and Norway spruce.

The included Charlton soils are better suited to most community development than the Sutton soil. The included Woodbridge and Ninigret soils are similarly suited to community development. They are limited mainly by a seasonal high water table at a depth of 20 inches, and the Woodbridge soils have a slowly permeable substratum. The Leicester soils are more poorly suited to community development because they have a higher water table for a longer period during the year. Capability subclass Vlls; woodland suitability subclass 4x.



# 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.

