

Environmental Review Team Report

# Aspinook Recreation Area

Lisbon, Connecticut

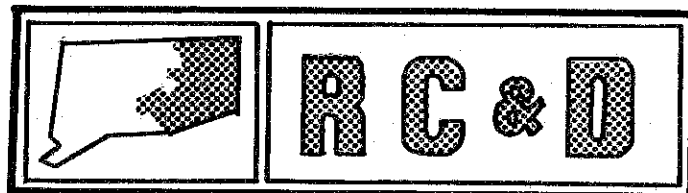


EASTERN CONNECTICUT RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC.

Environmental Review Team  
Report  
on

Aspinook Recreation Area  
Lisbon, Connecticut

May 1978

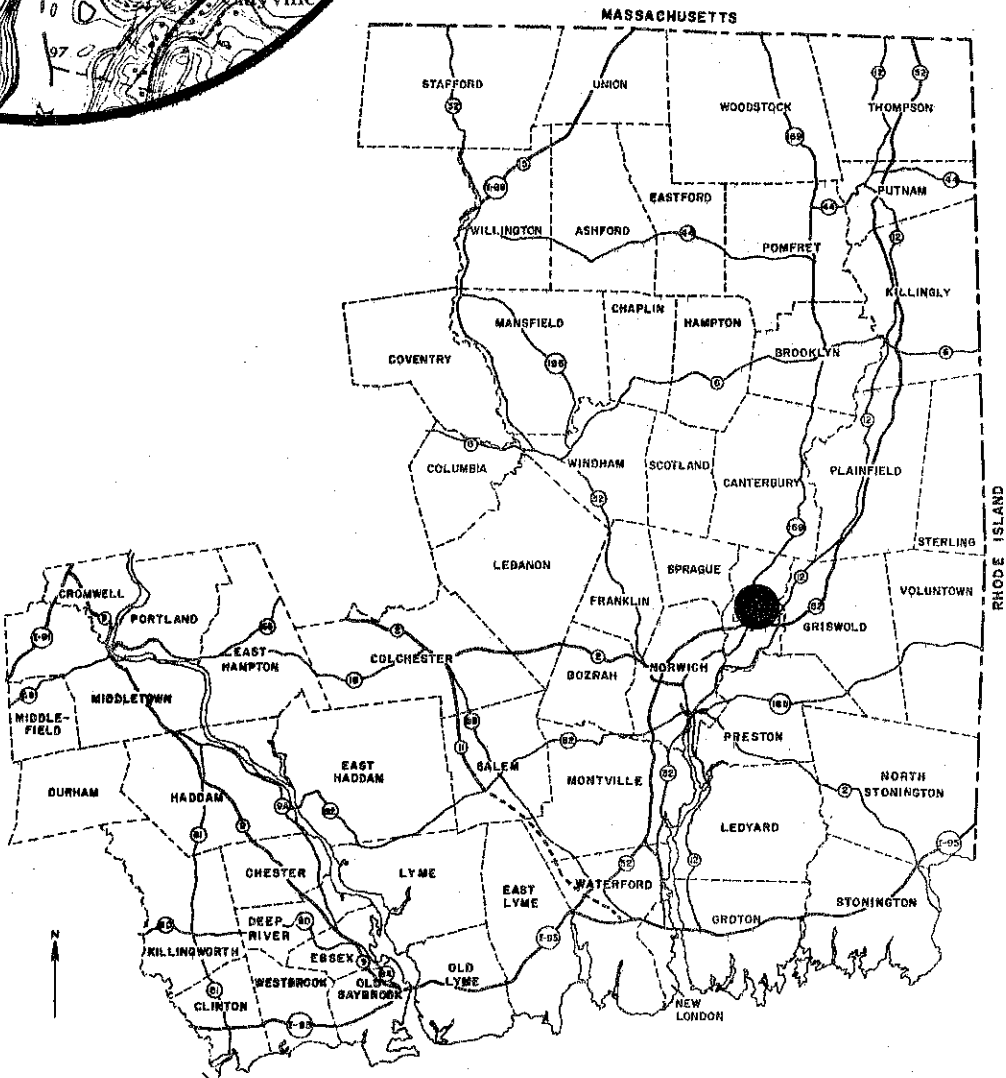
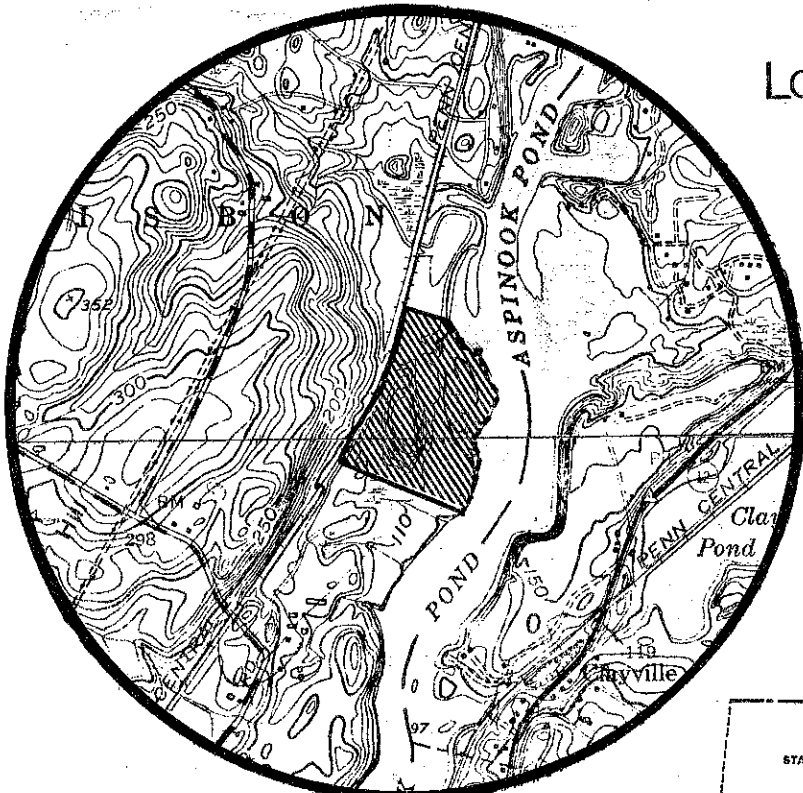


eastern connecticut resource conservation & development area

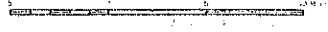
environmental review team  
139 boswell avenue  
norwich, connecticut 06360

# Location of Study Site

ASPINOOK RECREATION AREA  
LISBON, CONNECTICUT



**EASTERN CONNECTICUT**  
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT



ENVIRONMENTAL REVIEW TEAM REPORT  
ON  
ASPINOOK RECREATION AREA  
LISBON, CONNECTICUT

This report is an outgrowth of a request from the First Selectman of Lisbon to the New London County Soil and Water Conservation District (S&WCD). The S&WCD referred this request to the Eastern Connecticut Resource, Conservation and Development (RC&D) Area Executive Committee for their consideration and approval. The request was approved and the measure was reviewed by the Eastern Connecticut Environmental Review Team (ERT).

The soils of the site were mapped by a soil scientist from the United States Department of Agriculture, Soil Conservation Service (SCS). Reproductions of the soil survey map, a table of soils limitations for certain land uses and a topographic map showing property boundaries were distributed to all Team members prior to their review of the site.

The ERT that field-checked the site consisted of the following personnel: Mark Traceski, Soil Conservationist, Soil Conservation Service (SCS); Don Smith, Forester, Connecticut Department of Environmental Protection (DEP); Michael Zizka, Geologist, DEP; Andy Petracco, Recreation Specialist, DEP; Gerhard Amt, Regional Planner, Southeastern Connecticut Regional Planning Agency; and Jeanne Shelburn, ERT Coordinator, Eastern Connecticut RC&D Area.

The Team met and field checked the site on Tuesday, April 11, 1978. Reports from each contributing Team member were sent to the ERT Coordinator for review and summarization for the final report.

This report is not meant to compete with private consultants. As requested by the Town, this report, which identifies the existing resource base of the Aspinook Recreation Area, shall constitute the environmental assessment portion of the Town's open space application for Federal Department of the Interior, Heritage Conservation and Recreation Service funds to assist in the acquisition of this property.

The Eastern Connecticut RC&D Area Committee hopes that this report will be of value and assistance in making any decisions regarding this particular site.

If you require any additional information, please contact: Ms. Jeanne Shelburn, Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, 139 Boswell Avenue, Norwich, Connecticut 06360, 889-2324.



## DESCRIPTION OF THE PROPOSAL

The Town of Lisbon wishes to acquire a 44 acre parcel known as Aspinook on the Quinebaug for public open space and recreation. The tract is presently in the private ownership of Edward P. Friedland, a Lisbon resident. Should acquisition funding be available, the Town hopes to purchase the property with future development of playing fields, picnicking, nature study areas, camping, boating, fishing and hiking trails, in mind.

Aspinook on the Quinebaug is accessible from Ross Hill Road by an unpaved road which crosses the Providence and Worcester Railroad tracks and proceeds to the shore of Aspinook Pond. The site has access to Aspinook Pond and encompasses great topographic and environmental diversity which would lend itself well to recreational development.

The proposed acquisition would provide the Town with its first and only public recreation facility. Existing recreation facilities in Lisbon are limited to the school playground, a roadside picnic area on Route 12 owned by the State, a privately-owned 9-hole golf course and two recreation campgrounds.

The proposed facility is intended to eventually provide the residents of Lisbon with a variety of recreation opportunities. Development of the site could be phased over a period of time to ease the impact of the necessary local expenditures and to make maximum use of state and federal sources of development funds.

As the first recreation area to be acquired by Lisbon, the site is not related to any other recreation-oriented project or proposal. However, the proposal is consistent with comprehensive planning objectives at both the local and regional level. The Town Development Plan for Lisbon indicates the area of the proposed acquisition to be "Rural (1 Dwelling Unit Per 2 Acres, Open Space, Recreation, Conservation and Agriculture)." The Regional Development Plan designation for this area is "Low Density Uses (Scattered Residential Uses at Greater Than 1 Acre Per Unit; Agriculture, Conservation, Recreation, and Water Supply Uses)."

## DESCRIPTION OF THE ENVIRONMENT

### PRESENT/PAST LAND USES

The site has a varied topography and has been used for several low-intensity uses. The northern end, with its slightly irregular grade, appears to have been used for pasturing at one time, although it is now overgrown. Two open fields, totalling about 7 acres, are presently used for crop farming. The hilly western portion of the site gives evidence of frequent informal camping uses. A small gravel excavation is also found in the western part of the site. An earth-filled boat launching ramp has been built on the eastern edge of the site, which fronts on Aspinook Pond, a part of the Quinebaug River.

## EXISTING SOCIO-ECONOMIC CONDITIONS

Lisbon is a rural-residential community, bordering on the City of Norwich. Economic activity is sparse, with most persons employed outside of the Town. The population totalled 2,808 in 1970, according to the Census. The Connecticut Department of Health estimates the 1977 population to be 3,200, a seven-year increase of 14%. SCRPA forecasts the population of 3,450 in 1980 and 3,950 in 1990.

The population is scattered throughout Lisbon with no major concentrations. The acknowledged center of the Town is in Newent, where Routes 169 and 138 cross each other. Near the intersection are located the Town's only school, the fire house, the Town garage and the Town Hall. The proposed recreation area is about three miles from the Town center.

Data from the 1970 Census showed a 1969 median family income of \$9,771. Out of a total of 766 families and 100 unrelated individuals in the Town, 46 families and 42 unrelated individuals were classified as having incomes below the poverty level. The families in poverty represented 6% of the Town's families, compared with a regional average of 10.8%. The 1970 Census also disclosed only 1 black person residing in Lisbon.

## EXISTING TRANSPORTATION ROUTES

The proposed recreation area has been left undeveloped largely because of its location between the river and the railroad, with no access available from the north or south. The only access to the site is by way of an unimproved road from Ross Hill Road to the south and this road crosses the railroad at an unprotected and unmarked crossing.

## TOPOGRAPHIC FEATURES

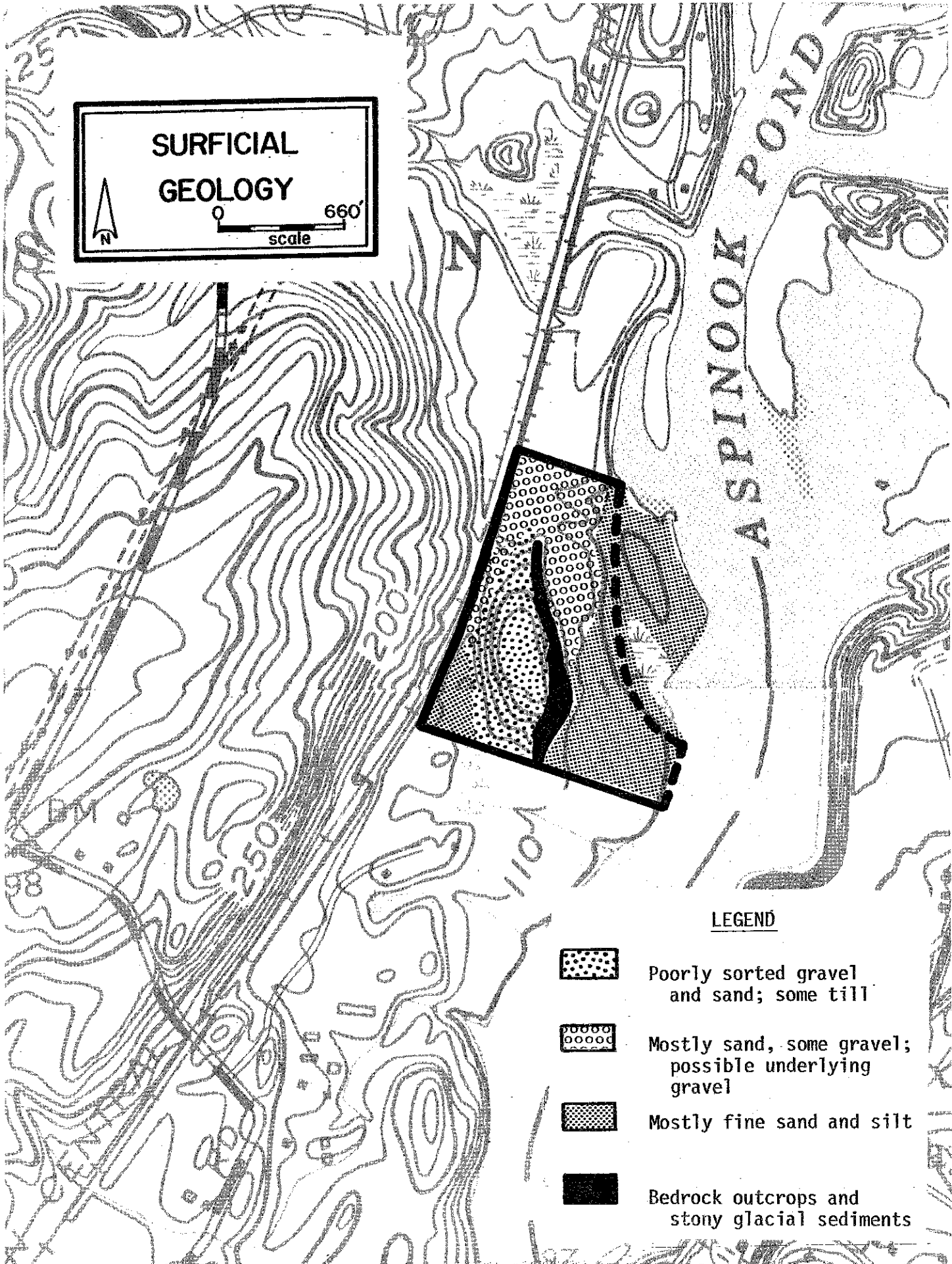
The property consists of three basic topographic zones: a relatively flat floodplain area adjacent to Aspinook Pond, a slightly higher and somewhat more irregular kame terrace surface at the northern and extreme western ends of the site, and a steep rocky hill occupying most of the southwestern part of the site.

## SURFACE AND SUBSURFACE GEOLOGIC CHARACTERISTICS

According to the "Bedrock Geologic Map of the Plainfield Quadrangle" (U.S. Geological Survey publication GQ-481), 1965, by H. Roberta Dixon, the bedrock underlying and cropping out on the property is part of the Quinebaug Formation, a group of metamorphosed volcanic and sedimentary rocks. Most of the underlying bedrock and all of the outcrops are part of the upper member of that formation; they consist of medium- to dark-gray and greenish gray gneisses, as well as layers of amphibolite. Schistose layers are also locally noticeable. Primary minerals in the gneisses are quartz, epidote, biotite, andesine, garnet, and hornblende. Accessory minerals include rutile, sphene, zircon, apatite, plagioclase, and various opaque minerals. No economic concentrations of any of these minerals is suspected. The outcrops show many academically interesting metamorphic features, including colorful and prominently folded layering, and coarse-grained xenoliths (blocky inclusions sandwiched between schist or gneiss layers).

**SURFICIAL  
GEOLOGY**

0 660'  
scale



LEGEND

-  Poorly sorted gravel and sand; some till
-  Mostly sand, some gravel; possible underlying gravel
-  Mostly fine sand and silt
-  Bedrock outcrops and stony glacial sediments



The surficial geologic materials consist largely of sand, silt, and gravel deposited by meltwater flowing from a stagnant tongue of glacier ice that formerly occupied the Quinebaug River valley. These deposits are called stratified drift. The northern part of the property is a kame terrace, composed of materials deposited between the side of the glacier and the valley slopes. Wastage of ice left steep faces at the former areas of ice-contact. Along Aspinook Pond, particularly in the southern part of the property, downcutting and lateral movement of Quinebaug River has modified the shape of the terrace. Thin floodplain deposits of silt and sand cap these areas. At depth, the terrace probably consists primarily of sand with occasional gravelly and silty layers. An excavation in the steep hill on the property showed a poorly sorted mixture of sand and gravel. Contorted, collapsed bedding indicates that this material was deposited by meltwater in intimate contact with wasting ice. The gravel, an assortment of pebbles and cobbles mixed with sand, would require screening for use as construction aggregate. The volume contained in the hill might be useful for fill locally, such as in grading the access road into the property, but is unlikely to have much commercial value. The shape of the hill and the prominence of outcrops of rock suggests that the surficial sediments, in places, will be found to be very stony and difficult to excavate, further limiting their value.

## SOILS

The soils found on the Aspinook Recreation site fall into the following categories:

- 1) The Agawam (96A, 96B) series consists of deep, well drained soils on outwash plains and stream terraces. They formed in water deposited sands. Typically, these soils have a very dark grayish brown fine sandy loam surface layer 10 inches thick. The subsoil from 10 to 25 inches is yellowish brown fine sandy loam. The substratum from 25 to 30 inches is light olive brown loamy fine sand and from 30 to 40 inches is olive fine sand. Slopes range from 0 to 35 percent.
- 2) The Hinckley (60C, 60D) series consists of deep, excessively drained soils on terraces, outwash plains, deltas, kames and eskers. They formed in water-sorted material. Typically, these soils have a very dark grayish brown loamy sand surface layer 7 inches thick. The subsoil layers from 7 to 15 inches are strong brown and yellowish brown gravelly loamy sand. From 15 to 18 inches the subsoil is yellowish brown gravelly sand. The substratum from 18 to 40 inches is light olive brown stratified sand, gravel, and cobblestones. Slopes range from 0 to 60 percent.
- 3) The Raypol (464) series consists of deep, poorly-drained soils on terraces. They formed in silty deposits over sand and gravel. Typically, these soils have a very dark brown silt loam surface layer, 8 inches thick. The subsoil, from 8 to 29 inches, is grayish-brown, dark yellowish-brown, and olive brown silt loam and very fine sandy loam, mottled throughout. The substratum, from 29 to 60 inches, is light olive brown gravelly sand. Slopes range from 0 to 5 percent.
- 4) The Charlton (17LC) series consists of deep, well drained soils on uplands. They formed in glacial till derived mainly from schist and gneiss. Typically, these soils have a dark brown fine sandy loam surface layer 6 inches thick. The subsoil from 6 to 26 inches is yellowish-brown and

light olive brown fine sandy loam. The substratum from 26 to 60 inches is grayish brown gravelly fine sandy loam. Slopes range from 0 to 45 percent.

- 5) The Hollis (17MD) series consists of shallow, well drained and somewhat excessively drained soils on uplands. They formed in acid glacial till derived mainly from schist and gneiss. Typically, these soils have a very dark grayish brown fine sandy loam surface layer 2 inches thick. The subsoil between 2 inches and 15 inches is dark yellowish brown and yellowish brown friable fine sandy loam and gravelly fine sandy loam which overlies schist bedrock. Slopes range from 0 to 45 percent.

Sites which will be particularly susceptible to erosion are: any high use trails on the steep Hinckley, Charlton, and especially the Hollis soils of the south central portion of the property, and the drainage courses across the Agawam soils in the northern portion of the property. The Limerick, Charlton, and Agawam soils have good fertility. The Hinckley soil loses fertility rapidly due to high percolation. The Hollis soil is shallow to bedrock and so lacks a good rooting zone.

The soil survey map and the accompanying charts indicating soil limitations for certain land uses further distinguish the soil types and their potential for the listed land uses. As the detailed soils map provided here is an enlargement from the original 1,320'/inch to 330'/inch scale, the soil boundary lines shown, should not be viewed as absolute boundaries but rather as guidelines to the distribution of soil types on the property. The soils map along with "Interim Soil Survey Report: New London County, Connecticut" (USDA-SCS 1978), can serve as an educational tool regarding the identification and interpretation of soils.


## WATER RESOURCES

Connecticut Water Resources Bulletin No. 8 (hereafter called Bull. 8), a U.S. Geological Survey publication, reports that the property is situated atop a body of stratified drift that has potential for the development of small to moderate groundwater supplies. The exact amount of yield for a new well will depend upon several factors, including texture of the sediments at depth and thickness of the primary water-transmitting layers. If fine-grained sand and silt layers persist at depth, transmission of water will be impeded; however, if coarse materials are found at depth, as Bull. 8 suggests, 100 gallons per minute or more would be a reasonable estimate of yield.

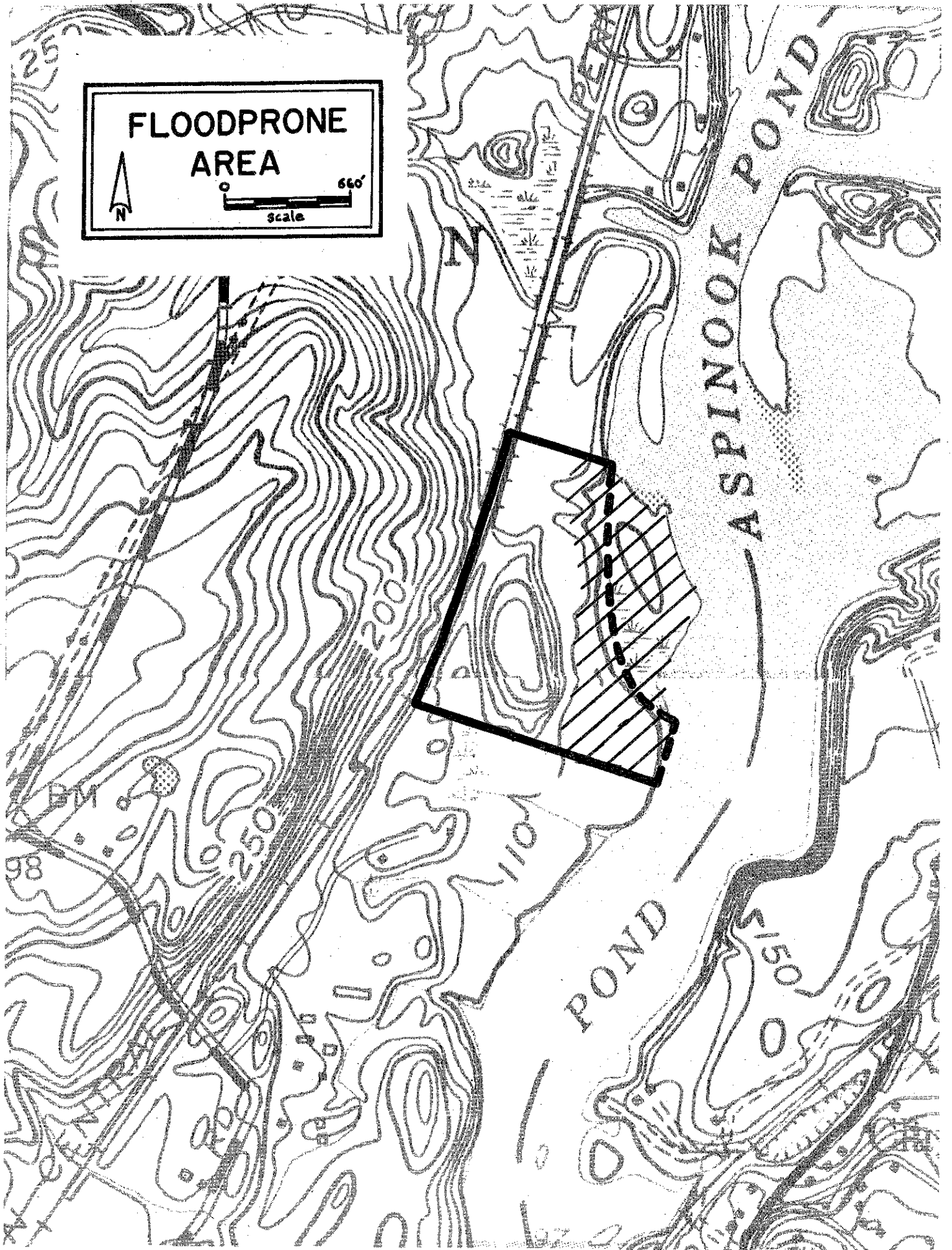
Water quality throughout most of the Quinebaug River basin is excellent. One problem found within the vicinity of the proposed recreation site may affect the water supply at the site. In a small area east of Aspinook Pond, within 0.5 mile of the potential park, wells tapping the lower 20 feet or so of the stratified drift or the upper 10-20 feet of the bedrock generally yield water high in iron and manganese. However, wells in the same area that tap either the upper part of stratified drift or the bedrock below its first 20 feet have obtained water of good quality. It is therefore likely that this problem, if it actually does extend to the proposed park site, can be avoided by careful placement of wells.

It should also be noted that wells placed in stratified drift in proximity to Aspinook Pond may, during high rates of pumping, lower the local groundwater table enough to induce infiltration of river water into the wells. When such

**FLOODPRONE  
AREA**



660'  
Scale



heavy pumping is anticipated, the quality of the river water should be examined. Under the proposed plan for recreational development, only small to moderate supplies of water should be needed, mostly for drinking and maintenance of playing fields, and induced infiltration probably would not occur.

U.S. Geological Survey maps of floodprone areas in the Plainfield and Jewett City quadrangles show that the eastern section of the property would be affected by a 100-year recurrence flood. This means that that area has a 1% chance of being flooded in any given year.

## CLIMATE

The climate in the District is typical of southern New England. Cool dry air from the sub-arctic regions of North America and moist warm air from the Gulf of Mexico have a major effect on day-to-day weather. Temperatures along the coast are moderated by sea breezes. The length of the growing season can vary 2 to 3 weeks from the coast to the northern part of the county.

Average winter temperature is 29°F and average summer temperature is 69°F. The length of the growing season varies from 180 to 200 days, but averages about 200 days. Annual precipitation averages nearly 48". Seasonal snowfall averages 26". Winter storms moving northeastward along the coast frequently bringing rain and thawing, and then more snow and cold weather.

## VEGETATION

The accompanying vegetation map illustrates the distribution of species on the site. The following discussion elaborates on the types of vegetation which are likely to be found in each mapped area.

**FIELD ONE:** The overstory is predominately 5 to 10 years old and in fair condition. Big tooth aspen, black cherry, black birch and American elm dominate the canopy. The understory density is moderate, consisting of big tooth aspen, bayberry, grey birch and low bush blueberry. Occasional ground cover consists mainly of princess pine, running evergreen, grape fern and native grasses.

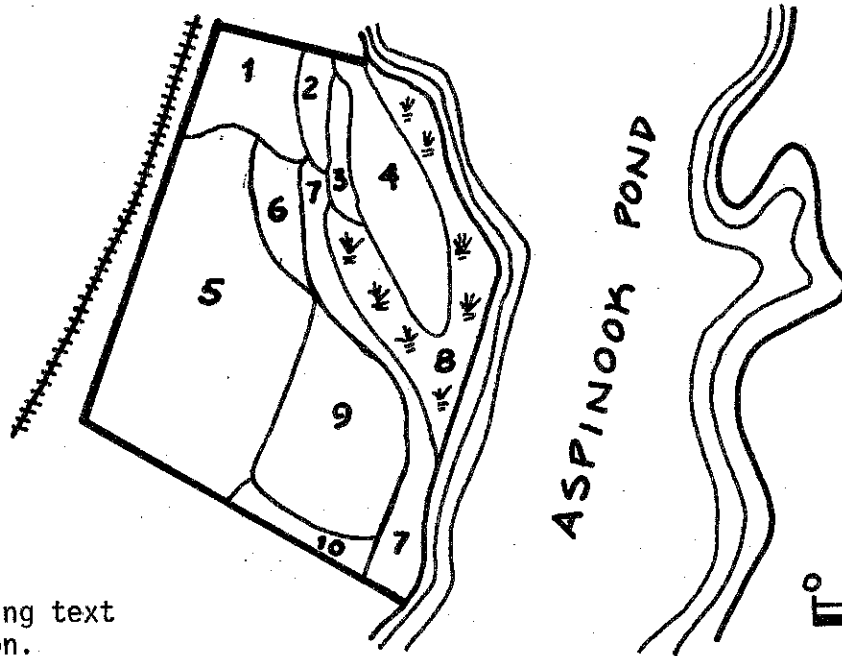
**FIELD TWO:** The overstory is composed of mature black cherry and red oak. The understory, of moderate density, is primarily composed of bayberry and red oak.

**FIELD THREE:** This wooded swamp with scant understory has a poor condition overstory composed of mature speckled alder, willow, apple and red maple.

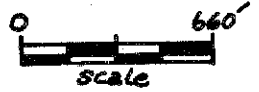
**FIELD FOUR:** The poor condition overstory consists primarily of mature red maples. The understory is open.

**FIELD FIVE:** This area is the major wooded area of the site. It is generally a poor submature stand with an open to very open understory. The Agawam soils here support an overstory of red oak, white oak and shagbark hickory. The Hinckley soils support a stand of red oak. The areas mapped Charlton-Hollis soils are dominated by white oak, red oak and Canadian hemlock. Scattered American beech are also found in this area. American beech-Canadian hemlock appears to be the climax species here. Ground cover is sparse, consisting of low bush blueberry,

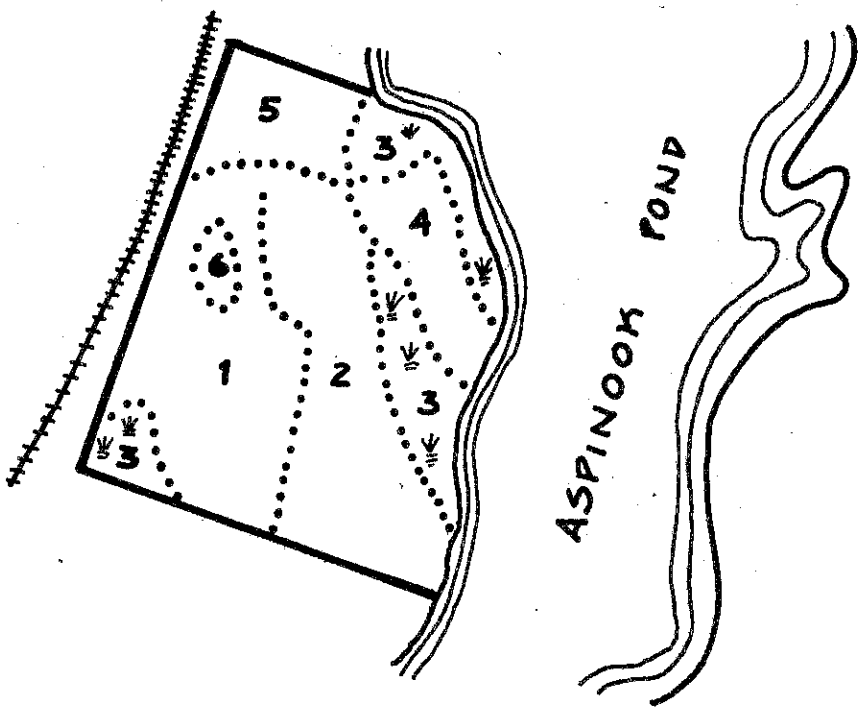
# AREA VEGETATION



See accompanying text for explanation.



# FOREST STANDS



## LEGEND

- Stand Boundary
- ☙ Wetland
- ++++ Railroad



Prepared by D. Smith, DEP.

coral-evergreen, princess pine, running-evergreen and rock polypody.

FIELD SIX: This portion of the site was used for cultivating corn.

FIELD SEVEN: This hedgerow area is dominated by red maple, black cherry, nannyberry and multiflora rose. It provides a valuable buffer between the field and water edge.

FIELD EIGHT: This field is a wet marsh varying from willow and older brush to open water.

FIELD NINE: This area was also used for corn cultivation.

FIELD TEN: This narrow strip of older pole-sized red maple and white ash separates this proposed recreation area from a private recreation area. Wild strawberry is common along the field edge.

#### FOREST RESOURCES

The site is currently being used for agricultural purposes although there is evidence of non-regulated recreational use. Forest vegetation of commercial utility is located primarily in Stand One and its primary value is as cordwood (See accompanying illustration.). There is also potential for commercial cordwood value in Stand Four pending access development. Should no development occur in this area, Stands One, Two, Three, Four and Six will continue essentially unchanged. Stand Five will continue to revert to woodland and a thinning of the area will be necessary in 15 to 20 years.

STAND ONE: This area is populated by mixed hardwoods, dominated by red and sugar maple, black, white and red oak, hickory, black and grey birch, ash and dogwood.

STAND TWO: This 12-acre area is primarily an open field.

STAND THREE: This is a wetland area of approximately 7.5 acres.

STAND FOUR: This area is approximately 5 acres, dominated by red maple, black birch, and spice bush.

STAND FIVE: This 5-acre mixed hardwood forest is dominated by poplar, red oak, white oak, grey birch, black birch and black cherry. It is presently in a transitional stage from open field to woodland.

STAND SIX: This is a gravel excavation area of approximately one acre.

#### WILDLIFE

At the time of the field inspection, evidence was seen of Gray Squirrel, Skunk, Raccoon, Opossum, Mice, Muskrat, Cottontail Rabbits, Blue Jay, Black Capped Chickadee, Downy Woodpecker, Robin and Barred Owl. Probable other species are Woodducks, Mallards, Black Ducks, Grey Fox, Ruffed Grouse, and White Tail Deer. Gray Squirrels and Cottontail Rabbits are the most abundant. This species list is neither inclusive or exclusive. The marsh area is the only delicate food chain area evident. No rare or endangered species were noted at the time of inspection.

## PROBABLE FUTURE ENVIRONMENT

Poor access conditions could forestall use of this site for other than its present uses for an indefinite period. Acquisition of the site by the landowner to the south could permit expansion of the existing large campground into the property. Development in the surrounding area is expected to continue very slowly and will consist of very low-density residential.

## ENVIRONMENTAL IMPACT

### QUANTIFIABLE LAND USE CHANGES

If the site were acquired and developed by the Town for recreation use, there would be a seasonal increase in traffic on Ross Hill Road generated by users of the site. Proximity to the site should enhance the attractiveness of the surrounding area for residential use. This may accelerate somewhat the present very slow rate of residential development in the area.

### SOCIO-ECONOMIC CHANGES

It does not appear that the proposed acquisition will have a noticeable impact on socio-economic conditions, except that there will undoubtedly be some local public expenses produced by developing and maintaining the property. These costs will be reflected in the local tax rate.

### TRANSPORTATION ROUTES

The route of travel to the site will be over Ross Hill Road from either Route 138 to the south or from Route 169 to the west. The added traffic volumes will give greater emphasis to presently recognized need to improve Ross Hill Road. The minor realignment and widening of this road has been listed as a local road improvement need in the Regional Transportation Plan for the past several years. The access road to the site itself is a narrow, single-lane unimproved road extending for about 2,000 feet from Ross Hill Road to the site. This road will certainly have to be substantially improved and safety devices will have to be installed at the rail crossing before any significant public use can be made of the site.

### EFFECT ON WATER RESOURCES

Contaminants from three main sources have a slight to moderate chance of reaching the water table, depending upon specific development plans. Usage of toilet facilities during the major recreational seasons could introduce some leachate into the groundwater supply; this possibility could be minimized by installing flush toilets connected to a properly designed subsurface septic system, as opposed to a common privy facility. Areas away from Aspinook Pond are more favorable for rest stations. Excess application of fertilizer might lead to some ground and surface water contamination, but conscientious playing field maintenance probably will be an improvement over fertilizing the corn fields now present. A

third potential source of contamination is oil or gasoline leakage from vehicles driven onto the property. Under normal circumstances, this should not cause any problems.

In all, harmful effects to water resources are likely to be very small, while the change in land use of the corn field could lead to a slight improvement in the quality of Aspinook Pond water. Wells for drinking-water supplies should be kept away from rest facilities and parking areas to minimize risks.

#### EFFECT ON VEGETATION

Proposed use will have little affect on vegetation unless areas are cleared for camping or recreation areas.

#### EFFECT ON WILDLIFE

Animal use may be reduced during peak recreation hours but will remain substantially the same as long as the field and pond buffer edges are not disturbed. The marsh area is the most critical. The island and wetlands are the only apparent delicate food chain link. Any use of these areas other than for nature study or strolling could have an immediate and significant impact on wildlife populations.

### MITIGATING MEASURES INCLUDED IN THE PROPOSAL

Property acquisition will not require any mitigating measures. When the recreation area is developed, a plan can be developed with the New London County Soil and Water Conservation District to insure incorporation of needed mitigating measures. Some areas for possible protection may be: drainage way development, trails and roads, selective location of a boat ramp, planting and maintenance of vegetational buffers around heavy use areas, protected wetlands and property boundaries.

### ADVERSE ENVIRONMENTAL EFFECTS

There are no adverse effects from the acquisition of this property. The increased use by humans will be unavoidable, however, it is not viewed as being an adverse effect.

### IRREVERSIBLE COMMITMENTS OF RESOURCES

This project as proposed will not create any irreversible commitments of resources.



## SHORT TERM VS. LONG TERM PRODUCTIVITY

This acquisition should have a long-term beneficial affect on the residents of Lisbon. Its varied topography, particularly the water frontage, presents a rare setting, as a variety of recreational opportunities are possible. It is highly questionable that Lisbon will ever find another site in the future that presents a similar range of opportunities.

## RECREATIONAL POTENTIAL

The Town's hopes for recreational development are for the accommodation of playing fields, picnicking, natural study areas, camping, fishing, wetland preservations and wildlife habitat, hiking trails and boating activities. Comments made in this section will address the achievement of these development goals, should the property be purchased by the Town of Lisbon.

One of the site's attributes is its natural "zoning" which facilitates the layout of specific recreation activities with minimal conflict as each area of activity can be somewhat isolated. The accompanying illustration shows a potential layout for recreation facilities on this site with regard to these natural zones. An existing road provides access to the site across the railroad tracks and follows the eastern edges of two open fields, terminating at waters edge at the proposed location of a boat ramp.

Parking for hikers, boaters and users of the playing fields should be considered in the area lying between the open fields. This would be a logical placement since it would service the possible area of heavy use (i.e. during ball games). It could also be the area for car/boat trailer parking.

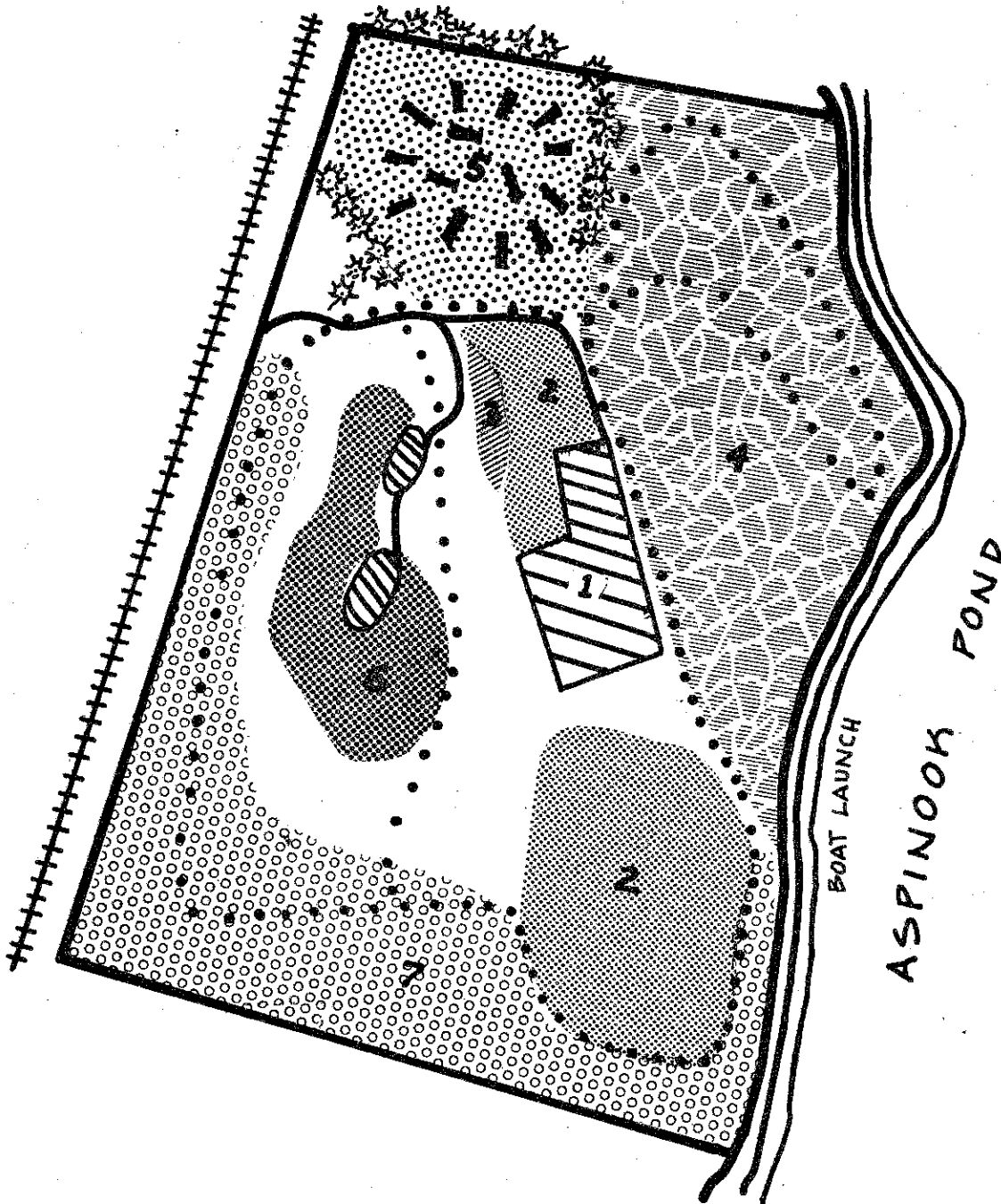
Some upgrading of the existing path which routes by the gravel bank to the top of the hill would be necessary if a picnic area was established on the hilltop as proposed. Parking spurs or a central parking lot could be provided on the hilltop also. The picnic sites should be located on the relatively flat areas of the hilltop to minimize the erosion which would occur on sloped portions of the site with heavy use. A central parking area, located in the two depressions on the hilltop, would be preferable to sites for individual cars near the tables as the latter would promote additional compaction of the soil to the detriment of the trees and enhance the probability of a car/child accident.

The hilltop can possibly accommodate eighteen to twenty-four parking sites and twenty-four to thirty picnic tables without overtaxing the site. It would be advisable to plant shade trees in this area to protect cars during the summer months.











The hilltop picnic area will offer a vista of Aspinook Pond in the early spring prior to leaf emergence.

Toilets (pit or chemical) would also be needed to service the ballfield and camp sites. Toilets could be situated near the ballfield parking lot and preferably in a shaded area (possibly under trees on the perimeter of the field). A few picnic tables could be located in the shade on the edge of the fields and at the base of the hillside.

# POSSIBLE RECREATION PLAN



## LEGEND

- |   |   |   |                       |
|---|---|---|-----------------------|
|  | Parking Areas                                     |  | Picnicking            |
|  | Ball Field/Open Play                              |  | Nature Study Area     |
|  | Tot Play Area                                     |  | Hiking Trail          |
|  | Fishing/Wildlife Habitat/<br>Wetland Preservation |  | Tree Screen Plantings |
|  | Camping   |  | Roads                 |



If concession services are to eventually be offered, thought should be given to putting in a toilet building which would also involve running power to the site. If this is done, a phone should also be installed for any emergencies since the site is somewhat isolated.

A boat ramp can be readily installed at the terminus of the present access road and with little expenditure. This ramp could be located at the approximate halfway point of the western edge of the larger field. A separate parking facility for car/boat trailer combinations may be desirable in this area.

This site currently has two open fields which are being used for cultivating corn.

The larger open field approximately 5 to 6 acres in size appears to be suitable for a ballfield. It is not square or rectangular but is large enough to be squared off for a ballfield and diamond. It would be a good area for flying model airplanes when not used for ball games.

The smaller field (estimated at 1 1/2 to 2 acres) might best be left open for varied activities, such as, frisbee toss, volley ball, soccer, badminton, horseshoes, etc. The western edge of this field appears suitable for a children's play area where swings, seesaw, sandbox, etc., might be installed. The play area should be located as far away from the parking lot and access road as is feasible, to minimize the risk of children near moving vehicles.

The northern side of the property lying between the stone wall and barbed wire fence on the extreme north end of the site could be made into a suitable camping area and should be able to accommodate ten to fourteen sites. More sites could probably be crowded on this two acre piece, but would diminish the quality of the camping experience because of overcrowding. Reference to the sketch of a possible campground layout will show that traffic routing is one way (counterclockwise) whereby the camping rigs are backed into the sites. The proposed access point is through a pentway in the stonewall on the edge of the smaller open field. The barbed wire fence should be removed but could be replaced with a wood fence or trees or shrubs for marking the boundary.

The area proposed as a natural area lies on the western and southern sides of the property as indicated in the sketch. The stone wall along the western side of the hill has been used as a delineator. In actuality the steepness of the hillside might effectively enlarge this area extending it toward the picnic area.

The route of the proposed hiking trail will wind through the proposed natural area. The trail layout roughly follows the property boundaries with an alternate loop over the hill and closed loop in the "wetland and wildlife" area for maximum length. Its route takes it through two stone wall pentways, one of which lies in the "natural" area. It also proceeds between rock outcrops in the natural area on the west end of the ballfield and by a large white pine on the fields' edge.

The area proposed for fishing, wetland preservation, and wildlife habitat lies in the northeast portion of the tract. Portions of this area are subject to seasonal flooding.

Further consideration should be given to planting parts of the property boundary with screen trees such as hemlock or pine. At present there is no con-

flicting or visually objectionable use of the adjacent properties but establishment of a living screen now will give the trees a chance to develop and mature to make for a distinct and visually attractive delineation of the site boundary.

## ALTERNATIVES TO THE PROPOSED ACTION

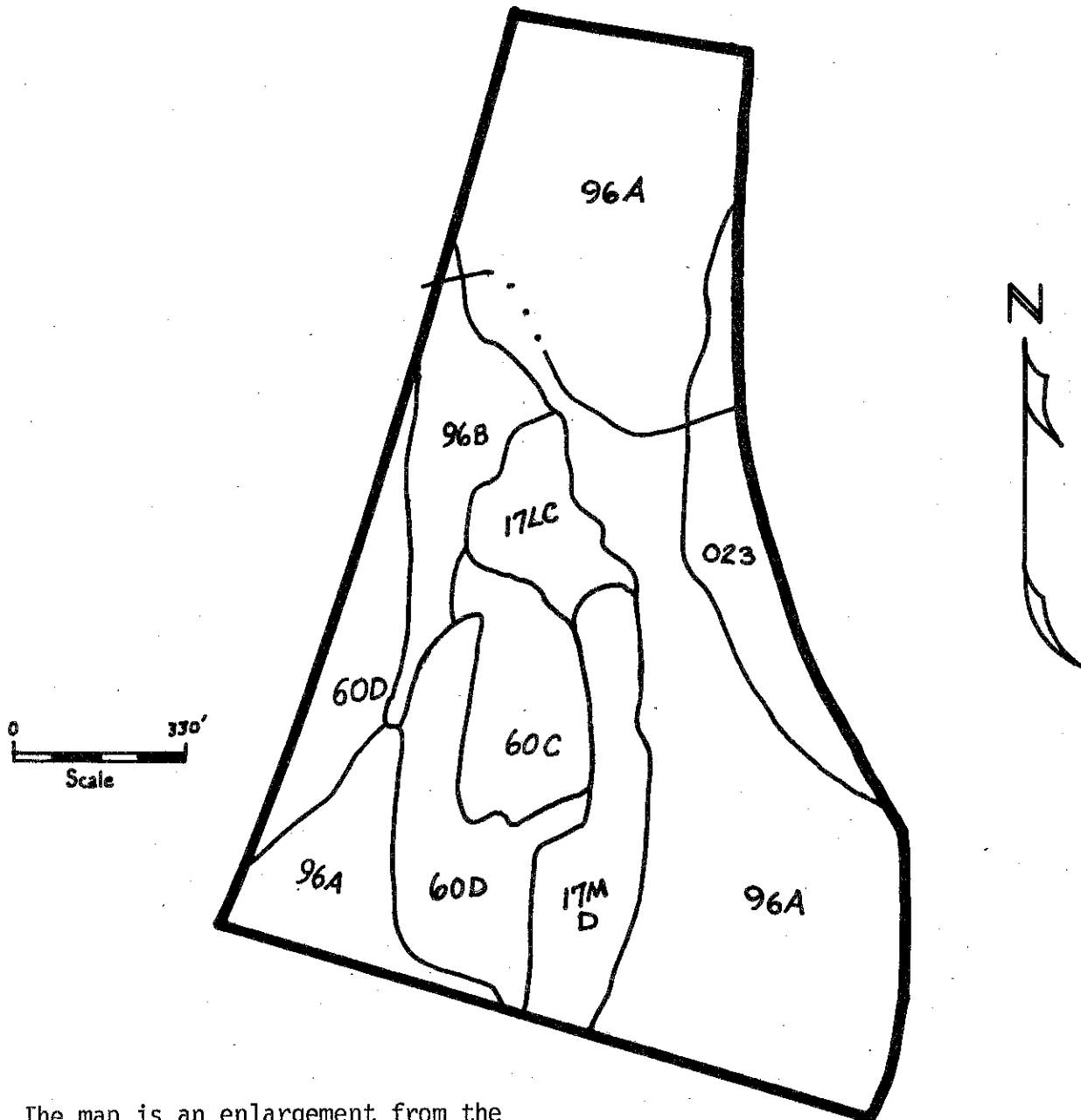
The site appears to have two reasonable alternative uses, a continuation of the present low intensity uses or commercial recreation camping resulting from an expansion of the existing similar use of the adjoining property to the south. Development for residential purposes does not seem feasible because of the extreme costs that would be involved in providing an access road and a suitable crossing of the railroad. Also, residential development would have to occur in the level area of the site, which is subject to seasonal flooding.



# Appendix

# SOILS

ASPINOOK RECREATION AREA  
LISBON, CONNECTICUT



The map is an enlargement from the original 1,320'/inch scale to 330'/inch.

Information taken from: New London County Interim Soil Survey Report, 1978;  
Soil Survey Sheet No. 3719; prepared by United States Department of Agriculture,  
Soil Conservation Service. Advance copy, subject to change.

ASPINOOK RECREATION AREA  
LISBON, CONNECTICUT

Mapping Unit Name	Symbol	Acreage	Septic Tank Absorption Field	Camp Areas	Picnic Areas	Play-grounds	Paths and Trails
Agawam fine sandy loam, 0 to 3% slopes	96A		slight*	slight	slight	slight	slight
Agawam fine sandy loam, 3 to 8% slopes	96B		slight*	slight	slight	moderate slope	slight
Hinckley gravelly sandy loam, 3 to 15% slopes	60C		moderate* slope	moderate too sandy, small stones	moderate too sandy, small stones	severe slope	moderate too sandy, small stones
Hinckley gravelly sandy loam, 15 to 35% slopes	60D		severe* slope	severe slope	severe slope	severe slope	moderate too sandy, small stones
Raypol silt loam	464		severe wetness	severe wetness	severe wetness	severe wetness	severe wetness
Charlton-Hollis fine sandy loam, 3 to 15% slopes	17LC		moderate slope large stones	moderate slope large stones	moderate slope	severe slope	moderate large stones
Charlton part			severe depth to rock	moderate slope and large stones	moderate slope	severe slope depth to rock large stones	moderate large stones
Hollis part							

\*very rapid permeability in substratum may cause ground water pollution.



ASPINOOK RECREATION AREA  
LISBON, CONNECTICUT

Mapping Unit Name	Symbol	Acreage	Septic Tank Absorption Field	Camp Areas	Picnic Areas	Play- grounds	Paths and Trails
Hollis-Rock outcrop complex	17MD		severe slope depth to rock	severe slope	severe slope	severe slope depth to rock large stones	moderate slope large stones
Hollis part							
Rock outcrop			N O T	A S S I G N E D			

## SOIL INTERPRETATIONS FOR URBAN USES

The ratings of the soils for elements of community and recreational development uses consist of three degrees of "limitations:" slight or no limitations; moderate limitations; and severe limitations. In the interpretive scheme various physical properties are weighed before judging their relative severity of limitations.

The user is cautioned that the suitability ratings, degree of limitations and other interpretations are based on the typical soil in each mapping unit. At any given point the actual conditions may differ from the information presented here because of the inclusion of other soils which were impractical to map separately at the scale of mapping used. On-site investigations are suggested where the proposed soil use involves heavy loads, deep excavations, or high cost. Limitations, even though severe, do not always preclude the use of land for development. If economics permit greater expenditures for land development and the intended land use is consistent with the objectives of local or regional development, many soils and sites with difficult problems can be used.

### Slight Limitations

Areas rated as slight have relatively few limitations in terms of soil suitability for a particular use. The degree of suitability is such that a minimum of time or cost would be needed to overcome relatively minor soil limitations.

### Moderate Limitations

In areas rated moderate, it is relatively more difficult and more costly to correct the natural limitations of the soil for certain uses than for soils rated as having slight limitations.

### Severe Limitations

Areas designated as having severe limitations would require more extensive and more costly measures than soils rated with moderate limitations in order to overcome natural soil limitations. The soil may have more than one limiting characteristic causing it to be rated severe.

# About the Team

The Eastern Connecticut Environmental Review Team (ERT) is a group of professionals in environmental fields drawn together from a variety of federal, state, and regional agencies. Specialists on the Team include geologists, biologists, foresters, climatologists, soil scientists, landscape architects, archeologists, recreation specialists, engineers and planners. The ERT operates with state funding under the supervision of the Eastern Connecticut Resource Conservation and Development (RC&D) Area.

The Team is available as a public service at no cost to Connecticut towns.

## 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 reviewing a wide range of projects including subdivisions, sanitary landfills, commercial and industrial developments, sand and gravel operations, elderly housing, recreation/open space projects, watershed studies and resource inventories.

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 officials of a municipality or the chairman of town commissions such as planning and zoning, conservation, inland wetlands, parks and recreation or economic development. Requests should be directed to the Chairman of your local Soil and Water Conservation District. This request letter should include a summary of the proposed project, a location map of the project site, written permission from the landowner 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 Eastern Connecticut RC&D Executive Council, the Team will undertake the review on a priority basis.

For additional information regarding the Environmental Review Team, please contact Jeanne Shelburn (889-2324), Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, 139 Boswell Avenue, Norwich, Connecticut 06360.