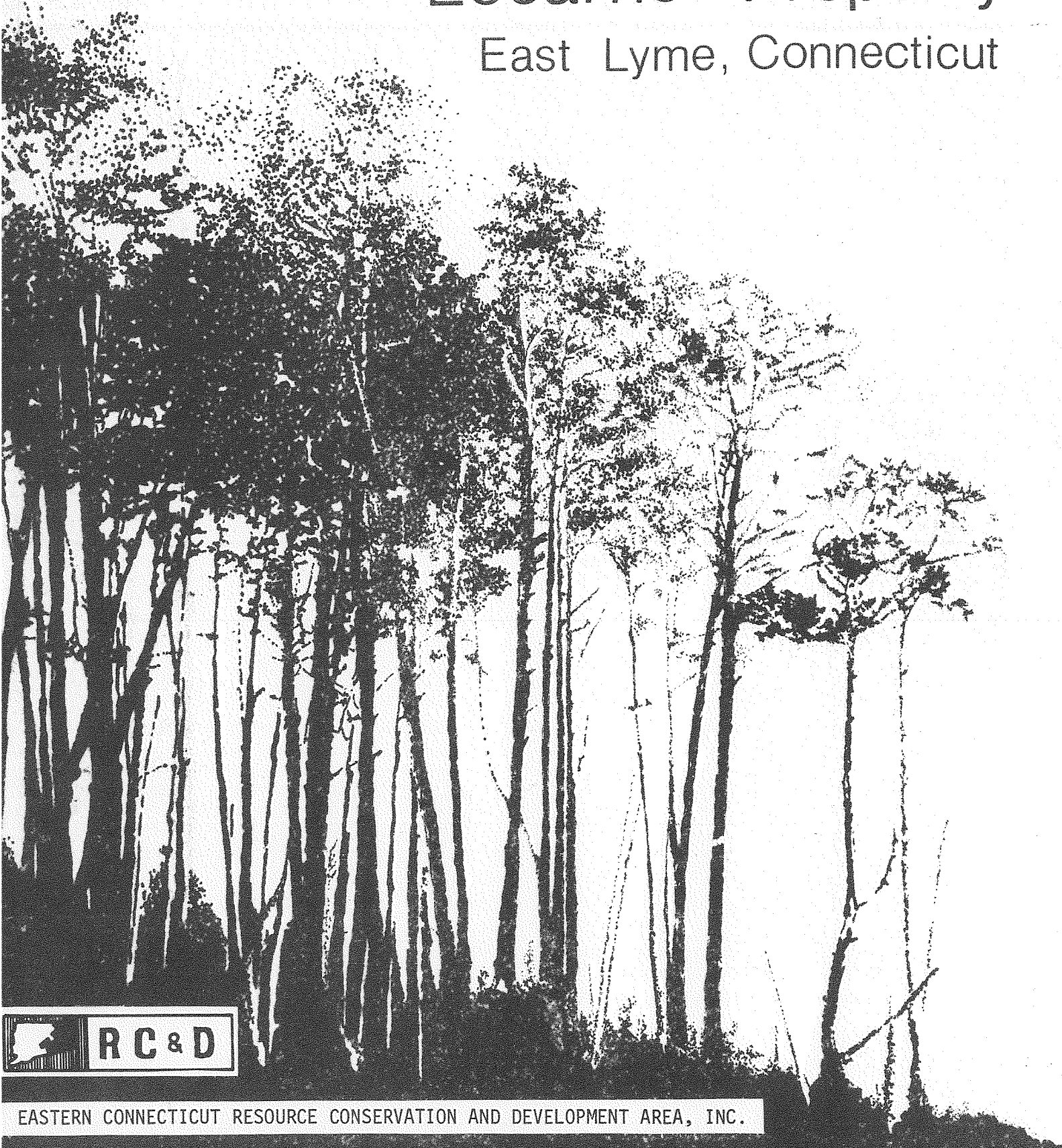


Environmental Review Team Report

Locarno Property

East Lyme, Connecticut

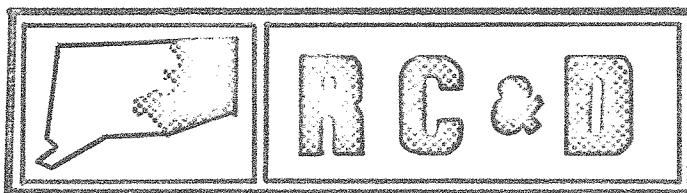


EASTERN CONNECTICUT RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC.

Environmental Review Team
Report
on

Locarno Property
East Lyme, Connecticut

January 1979

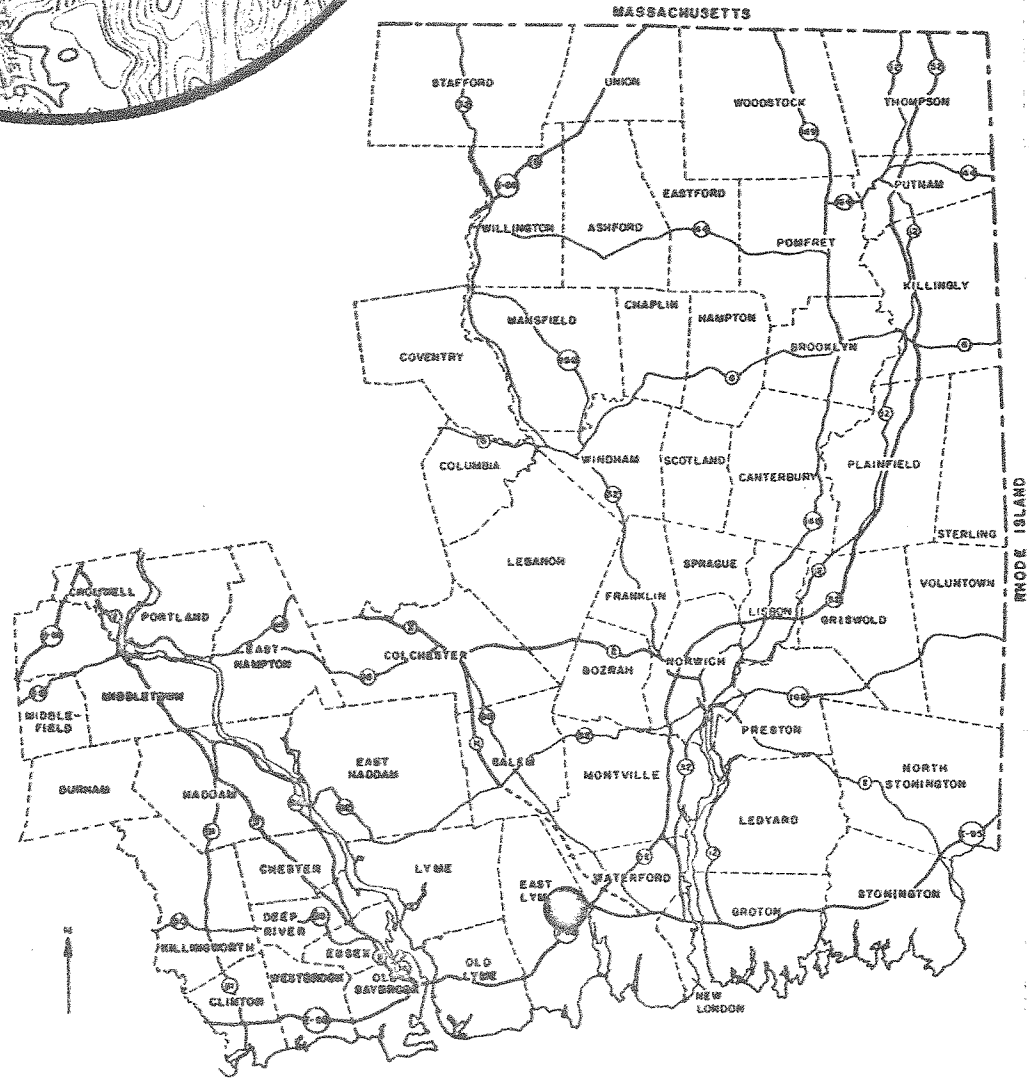
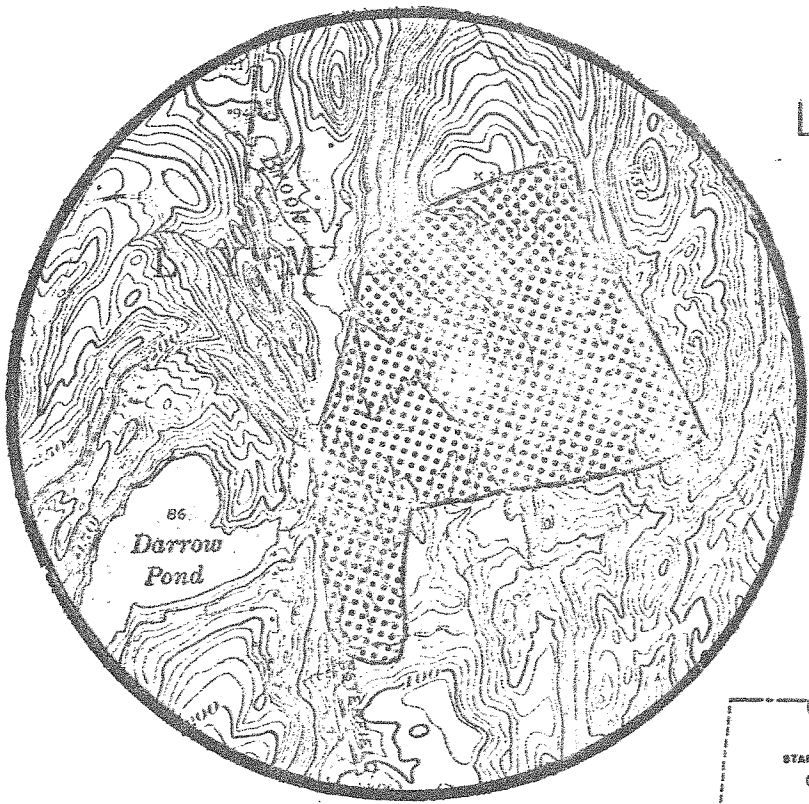


eastern connecticut resource conservation & development area

environmental review team
139 boswell avenue
norwich, connecticut 06360

Location of Study Site

LOCARNO PROPERTY
EAST LYME, CONNECTICUT



EASTERN CONNECTICUT
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT

ENVIRONMENTAL REVIEW TEAM REPORT
ON
LOCARNO PROPERTY
EAST LYME, CONNECTICUT

This report is an outgrowth of a request from the First Selectman of East Lyme 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, SCS; Tim Hawley, Forester, Connecticut Department of Environmental Protection (DEP); Michael Zizka, Geologist, DEP; Gerhard Amt, Regional Planner, Southeastern Connecticut Regional Planning Agency; Andy Petracco, Recreation Specialist, DEP; Charles Phillips, Fisheries Biologist, DEP; and Jeanne Shelburn, ERT Coordinator, Eastern Connecticut RC&D Area.

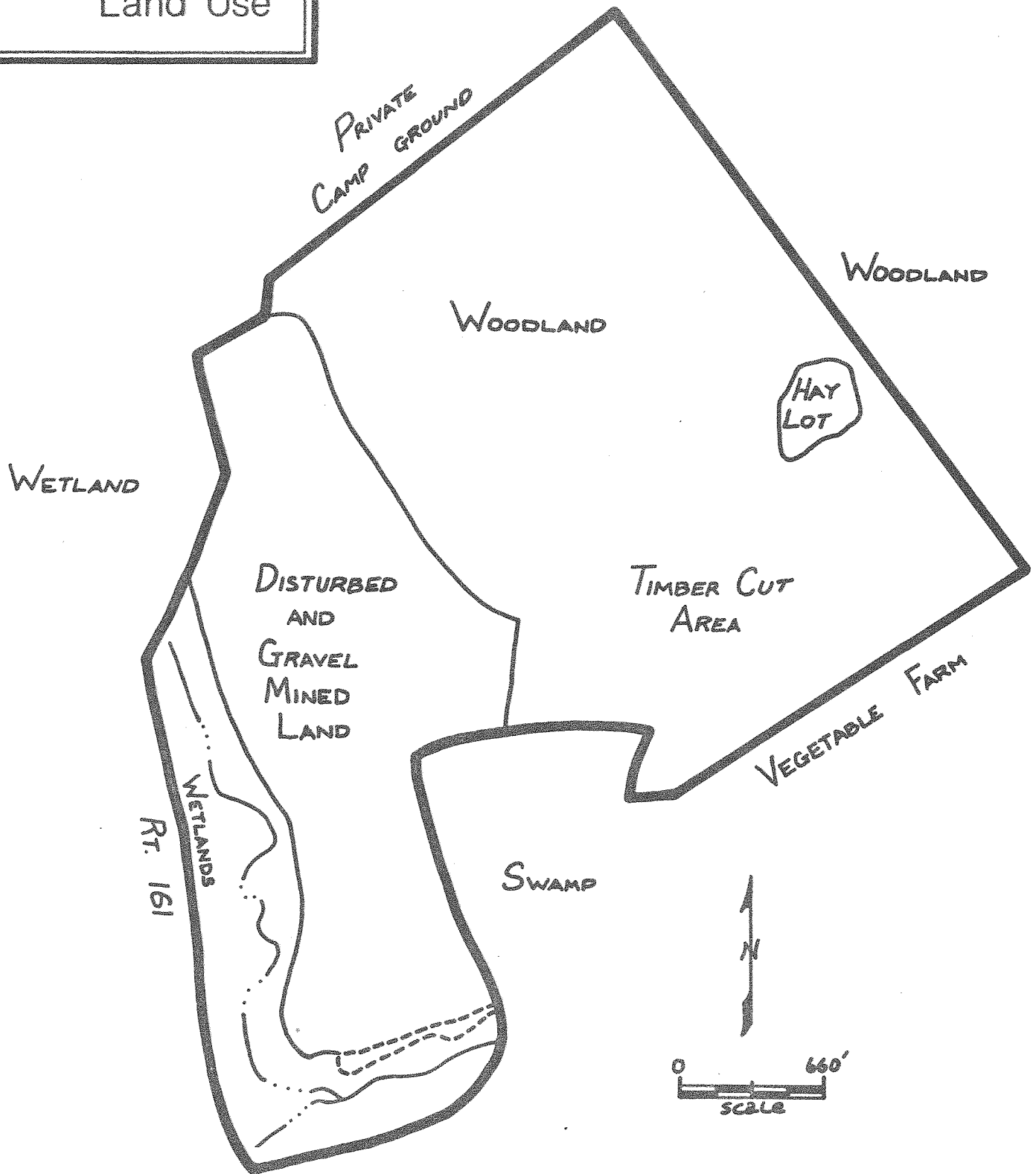
The Team met and field checked the site on Thursday, September 14, 1978. Reports from each contributing Team member were sent to the ERT Coordinator for review and summarization for the final report.

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 Locarno Property, 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 development 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.

Existing
Land Use



DESCRIPTION OF THE PROPOSAL

The Eastern Connecticut Environmental Review Team was asked to prepare an environmental assessment of the Locarno Property in East Lyme, forming the basis of an HCRS (Heritage, Conservation, and Recreation Service) acquisition grant application. The purpose of this acquisition is to secure for the Town of East Lyme a site for a variety of future recreation activities. It would serve all segments of the population. The Plan of Development for East Lyme, adopted January 24, 1978, notes that areas will be needed in the future for ball fields, basketball courts, tennis, hiking, swimming, boating, fishing and a community center. Many of these needs could probably be met through acquisition and development of the Locarno Property.

The site, which contains approximately 245 acres, is located between East Lyme's eastern boundary and State Route 161, with 2,800 feet of frontage on the State highway. Latimer Brook runs through the western edge of the site for its full length from north to south. A sea run brown trout program in recent years has focused its efforts on maintaining an anadromous trout run in Latimer Brook and supplying eggs for stocking other coastal streams in Connecticut. Latimer Brook at this site has a drainage area in excess of 16 square miles and so the brook and its associated wetlands are within the jurisdictional control of the Army Corps of Engineers. The closeness of the brook to the highway reduces significantly the opportunity to develop the highway frontage.

Approximately 135 acres along the eastern side of the site is a hillside with slopes ranging up to 25%. The remaining 110 acres are relatively flat or gently sloping toward Latimer Brook. Large areas of this lower part of the site have been stripped of top soil and excavated. In the extreme southern end of the site, the excavation is well below the water table, resulting in a pond approximately thirty feet wide and a thousand feet long.

DESCRIPTION OF THE ENVIRONMENT

PRESENT/PAST LAND USES

The property has been used for row crop farming, hay, pasture, timber production, and sea-run trout fisheries. It has also been used for gravel excavation. A considerable amount of soil and fill has been removed or disturbed on this site.

The site is bordered on the north by a private camping and recreation site, on the east by woodland, on the south by Latimer Brook and a residential subdivision, and on the west by Route 161. Access from the west is by a wooden bridge over Latimer Brook.

Part of the Locarno Property lies over the Latimer Brook aquifer. The Plan of Development for East Lyme emphasizes aquifer protection and recommends that the land over the aquifer be rezoned from one-acre to two-acre residential. It should be noted, however, that the Latimer Brook aquifer is not currently being used as a public water supply source.

EXISTING SOCIO-ECONOMIC CONDITIONS

The Locarno Property is in an area of the Town zoned R-40, which is basically a residential zone requiring lots of at least 40,000 square feet. Other permitted uses include public facilities. The recently adopted East Lyme Plan of Development recommends this area for "low intensity uses." The Plan also noted that special care should be taken with regard to development in areas that slope toward streams in order to protect the quality of water entering the stream in the form of runoff.

East Lyme's population in 1970 was 11,399. The Town's Plan of Development forecasts a population of 15,000 in 1980 and about 19,300 in 1990. The 1970 Census revealed that the population is 99% white. Average family sizes are 3.4 persons, somewhat higher than the regional average of 3.2 persons per family. SCRPA's analysis of 1970 Census data revealed that an unusually high percentage of the Town's employed adults (aged 16 and over) were in professional positions. Over 37% of East Lyme's labor force were classified as professionals, as compared with a regional average of only 25.5% in this category. Family income was correspondingly high, with the median being \$11,828, compared to \$10,452 for the regional median.

EXISTING TRANSPORTATION ROUTES

The site is in an area of the town that has experienced substantial growth in recent years. Access over Route 161 is good, although traffic volumes are quite heavy at times. Except for people living in the immediate vicinity, primary access to recreational facilities on the site would be by motor vehicle, as the site is well removed from the more heavily built-up sections of the Town.

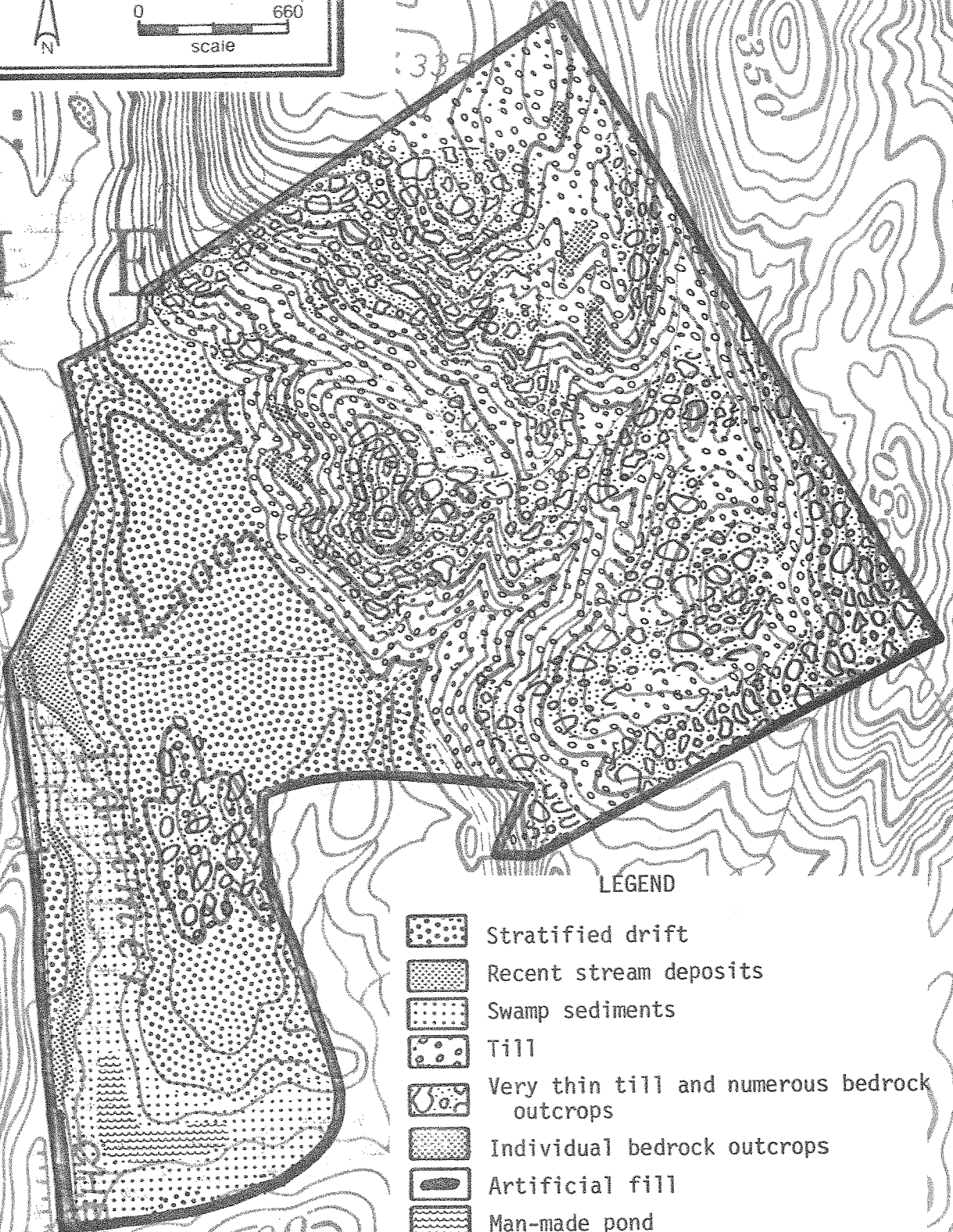
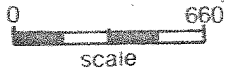
SURFACE AND SUBSURFACE GEOLOGIC CHARACTERISTICS

The Locarno Property lies within the Montville topographic quadrangle. Bedrock and surficial geologic maps of that quadrangle have been prepared by Richard Goldsmith (U.S. Geological Survey Maps GQ-609 and GQ-148, respectively). Geologic maps of the Locarno Property, adapted from the publications mentioned above, accompany this report.









Although the bedrock units vary in mineral composition, they may be generally described as gneisses of granitic composition. Gneisses are metamorphic rocks in which light and dark minerals are alternately banded. The term "granitic" means that the rocks have an abundance of quartz and feldspar, and lesser amounts of mica and of dark minerals such as hornblende and magnetite. Although the minerals do not appear to have any economic significance in themselves, some of the rock types may have economic uses. The biotite granite gneiss, for instance, has been used for rough-construction building stone and has potential for use as rip-rap. The easternmost unit of alaskite gneiss has potential for rough-construction building stone, for rip-rap and, where fine-grained, for crushed stone.

The surficial geology of the property may be divided into two principal units, till and stratified drift, and two less widespread units, alluvium and swamp sediments. Till, a glacial deposit, consists of rock particles of all shapes and sizes that were incorporated into the ice as it moved across Connecticut and that were later redeposited directly from the ice. Till is variable in texture, ranging

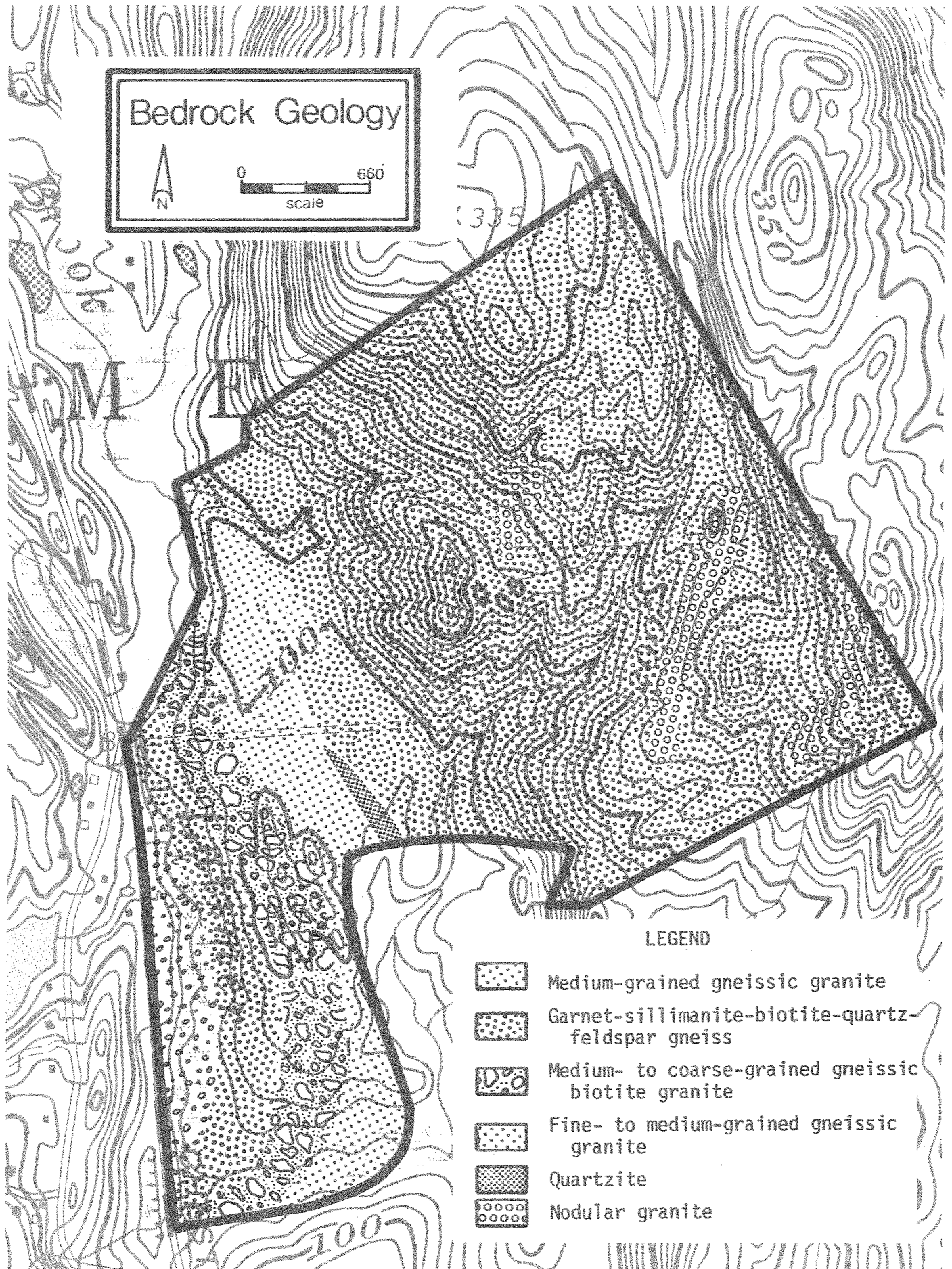
Surficial Geology









LEGEND

-  Stratified drift
-  Recent stream deposits
-  Swamp sediments
-  Till
-  Very thin till and numerous bedrock outcrops
-  Individual bedrock outcrops
-  Artificial fill
-  Man-made pond

Bedrock Geology



LEGEND

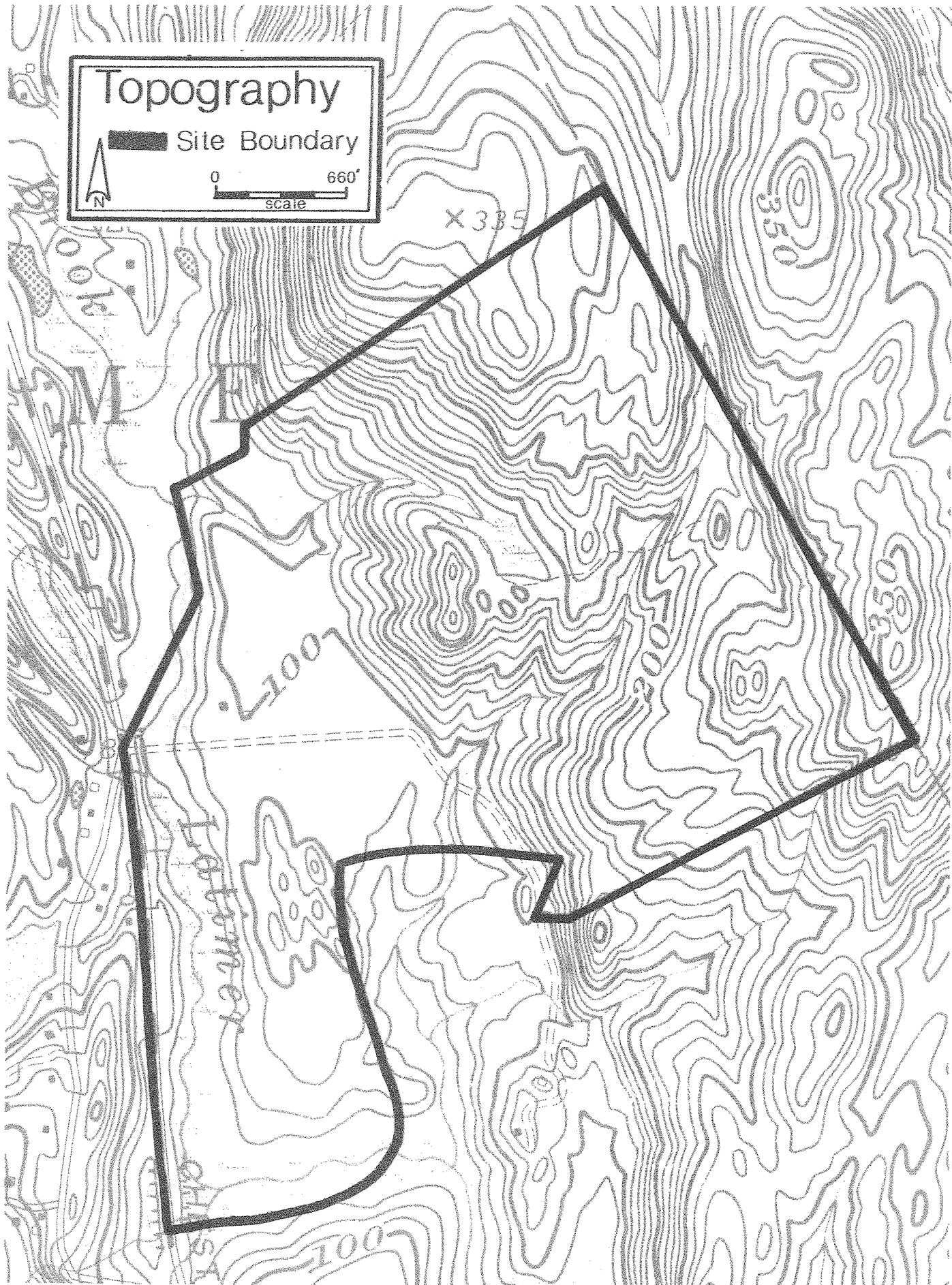
-  Medium-grained gneissic granite
-  Garnet-sillimanite-biotite-quartz-feldspar gneiss
-  Medium- to coarse-grained gneissic biotite granite
-  Fine- to medium-grained gneissic granite
-  Quartzite
-  Nodular granite

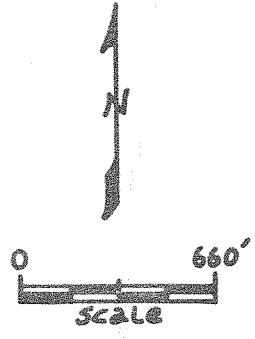
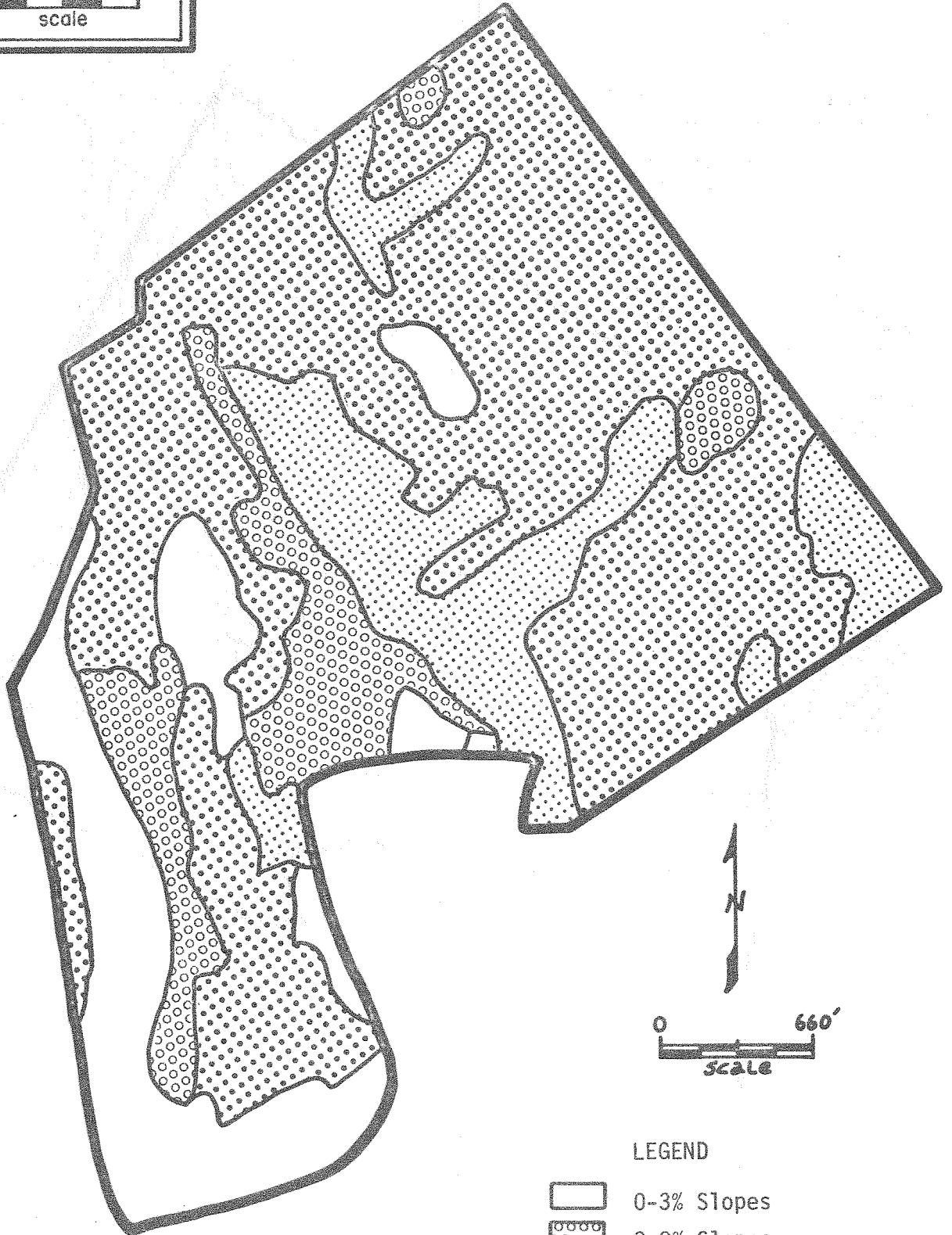
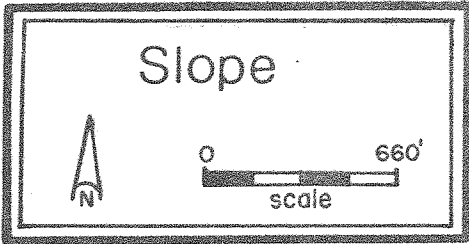
Topography

■ Site Boundary





0 660'
scale

X 3 B 5





LEGEND

-  0-3% Slopes
-  3-8% Slopes
-  15+% Slopes
-  0-15% Variable Slopes

from silty and compact to sandy and loose. Most of the till on the property is compact. Till thinly covers bedrock on most of the hilly, northeastern section of the site and on a knobby area near Latimer Brook.

Stratified drift, which covers the rest of the property, consists largely of layers and lenses of sand and gravel, which were deposited by meltwater streams adjacent to wasting glacier ice. Near the pond in the southern part of the site, the stratified drift appeared to consist of one to four feet of pebble and cobble gravel over fine- to medium-grained, micaceous sand. Further north, the gravel seems generally finer, consisting of pebbles and small cobbles. North of the access road, near the contact with the till, the stratified drift comprised two to three feet of pebble gravel over sand. (The descriptions above refer only to those parts of the deposit that were exposed by excavation.) The deposits as a whole probably have only a small economic value as aggregate, due to the apparent thinness of the gravel layers.

Alluvium (recent stream deposits of silt, sand, and gravel) thinly covers the stratified drift on the floodplain of Latimer Brook. Decayed plant materials, sand, silt, and clay have been deposited in a flat area of the floodplain in the southern section of the parcel.

SOILS

The soils found on the Locarno Property fall into the following categories:

1. The Charlton series (17LC, 17LD) consists of gently sloping, sloping, moderately steep, and steep, well-drained soils on uplands. They formed in friable glacial till. Charlton soils have moderate to moderately rapid permeability. Major limitations are related to slope and stoniness.
2. The Hollis series (17LC, 17LD, 17MC, 17MD) consists of gently sloping, sloping, moderately steep and steep, shallow, well-drained soils on uplands where relief is influenced by the underlying bedrock. They formed in glacial till less than 20 inches deep, over granite, gneiss, and schist bedrock. Hollis soils have moderate permeability. Major limitations are related to depth to bedrock, rockiness, and slope.
3. The Agawam series (96B) consists of nearly level and gently sloping, well-drained soils on outwash plains and stream terraces. They formed in water-sorted sands. Agawam soils have moderately rapid permeability in the surface layer and subsoil, and rapid permeability in the substratum. They have few limitations.
4. The Hinckley series (60C, 60D) consists of nearly level, gently sloping, sloping, moderately steep, and steep, excessively drained soils on stream terraces, outwash plains, kames and eskers. They formed in water sorted outwash. Hinckley soils have rapid and very rapid permeability. Major limitations are related to slope and droughtiness.
5. The Limerick series (023) consists of nearly level, poorly drained soils on flood plains. They formed in recent silty alluvial sediments less than 40" thick over sands and gravels. Limerick soils have moderate permeability, are subject to flooding, and have a high water table at or near the surface for 7 to 9 months of the year. Major limitations are related to flooding and wetness.

6. The Ridgebury-Leicester-Whitman complex (43M) is made up of poorly and very poorly drained soils. These soils occur in an intricate pattern and separation of each individual soil was not practical on the scale surveyed. Each mapping unit may contain an individual soil or a percentage of each of the three soils. They are similar to the soil described for their series.

The Ridgebury series consists of nearly level, poorly drained soils on drumlins, and rounded or elongated hills of uplands. They formed in compact glacial till. Ridgebury soils have moderate to moderately rapid permeability in the surface layer and subsoil, slow or very slow permeability in the substratum (fragipan), and a high water table at or near the surface 7 to 9 months of the year. Major limitations are related to stoniness, wetness, and slow permeability in the substratum.

The Leicester series consists of nearly level, poorly drained soils on uplands. They formed in friable glacial till. Leicester soils have moderately rapid permeability and a high water table at or near the surface 7 to 9 months of the year. Major limitations are related to wetness and stoniness.

The Whitman series consists of nearly level, very poorly drained soils on uplands. They formed in compact glacial till. Whitman soils have moderate to moderately rapid permeability in the surface layer and subsoil, slow or very slow permeability in the substratum (fragipan), and a water table at or near the surface 9 to 10 months of the year. Major limitations are related to slow permeability, wetness, and stoniness.

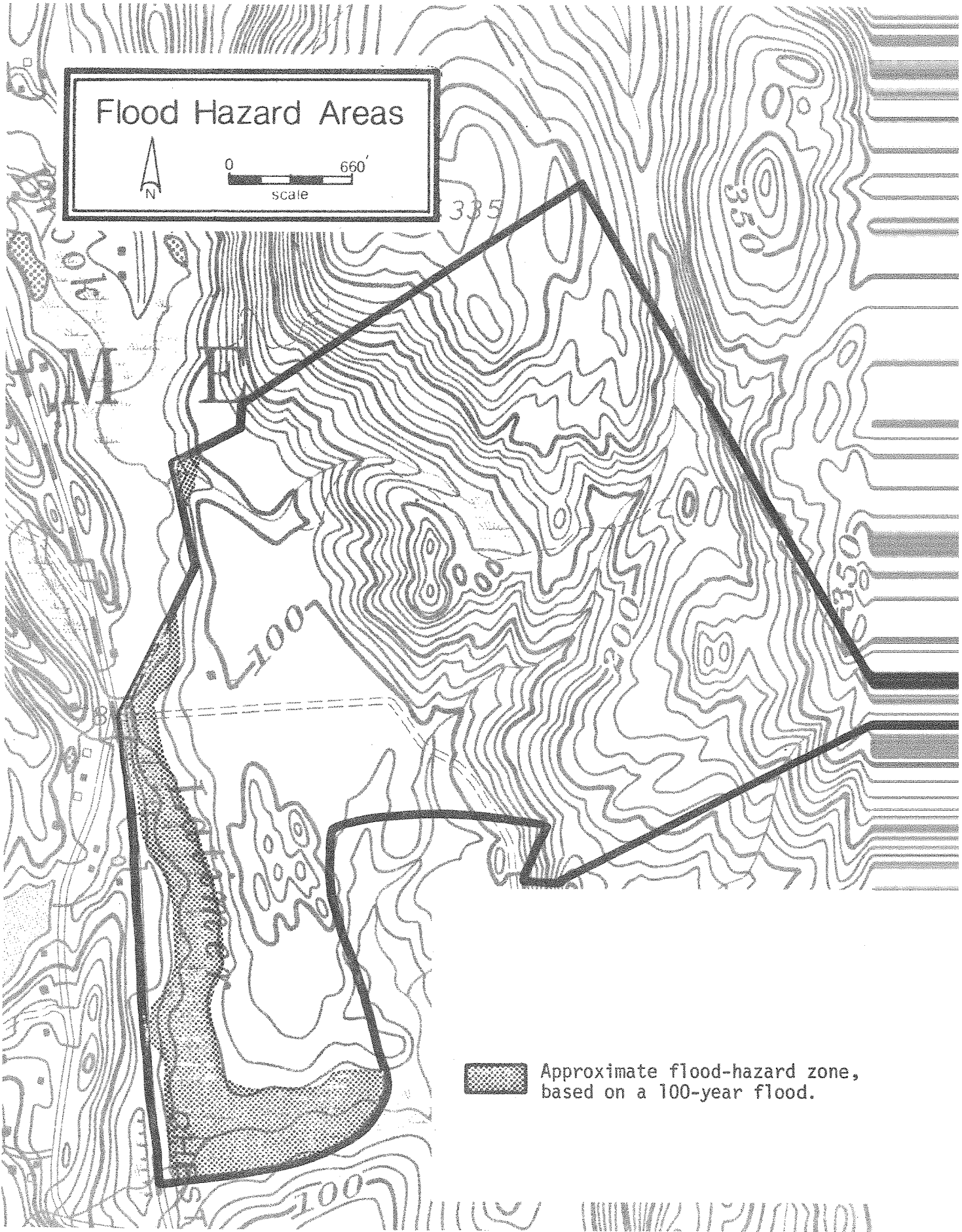
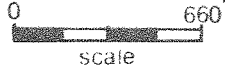
The Limerick, Rumney, Adrian-Palms, Ridgebury, Leicester, Whitman and Raypoil soils are severely limited for active recreational uses due to wetness. The Gravel Pit and Udorthents areas, as well as the unmapped recently excavated areas, within the Haven soils, are devoid of top soil and vegetation. The extensive areas of exposed vertical banks and bare soil create a vast eroding area. The droughty, sandy and gravelly nature of this denuded area will make revegetating difficult. Regrading alone will require considerable work. A maze of 5 to 6 foot deep trenches has recently been cut throughout the Haven, Agawam, and Hinckley soils. Much of this area was once prime farm land. Other than regrading, special measures will be needed such as top soiling, heavy fertilizing, liming, and mulching.

Any development on this property should be accompanied by a sediment and erosion control plan to be implemented during construction. Connecticut's Sediment and Erosion Control Handbook published by the Soil Conservation Service will aid the Town in preparing an adequate plan. Technical assistance for preparing this plan can be obtained at the Soil Conservation Service field office in New London County, located in Norwich.

WATER RESOURCES

The Locarno Property is within the watershed of Latimer Brook. At the point of confluence of the brook with the outflow from Darrow Pond, which lies directly east of the property, the drainage area of the brook is approximately 16 square miles. Graphs found in Connecticut Water Resources Bulletin No. 15 (hereafter called CWRB15) allow an estimation of flood flows in the brook in the vicinity of the property. For instance, a flood flow of approximately 450 cubic feet per

Flood Hazard Areas



Approximate flood-hazard zone,
based on a 100-year flood.

second (cfs) may be expected on an average of once every two years; a flow of 1,375 cfs, once every 25 years; a flow of 1,850 cfs, once every 50 years; and a flow of 2,500 cfs, once every 100 years. A map that shows the floodprone areas within the property, based on the estimated 100-year flood, accompanies this report.

The stratified drift deposits in the vicinity of the Locarno Property form the northern section of an aquifer that has been identified in CWRB 15 as having potential for large groundwater yields. Because much of the material within the parcel itself appears to consist of sand rather than gravel, wells placed on the site probably would not be as productive as wells placed further downstream (test wells would be needed to verify this). Nevertheless, wells on the site would be likely to afford substantially more groundwater than bedrock wells.

The chemical quality of Latimer Brook in the vicinity of the site seems to be fairly good. It would be important to maintain this quality if the stratified drift is used for future groundwater supplies. High-yield wells, particularly if located quite close to the brook, could be influenced by infiltration of surface water back into the stratified drift.

CLIMATE

Temperature is moderated by sea breezes. The average winter temperature is 29°F. The summer average is 69°F. The growing season is 200± 20 days. Annual precipitation averages 48" (snowfall 26"). Winters are characterized by mixes of freezes, snows, thaws, and rains. Tropical storms occasionally cause extensive flooding, usually during the late summer and early fall.

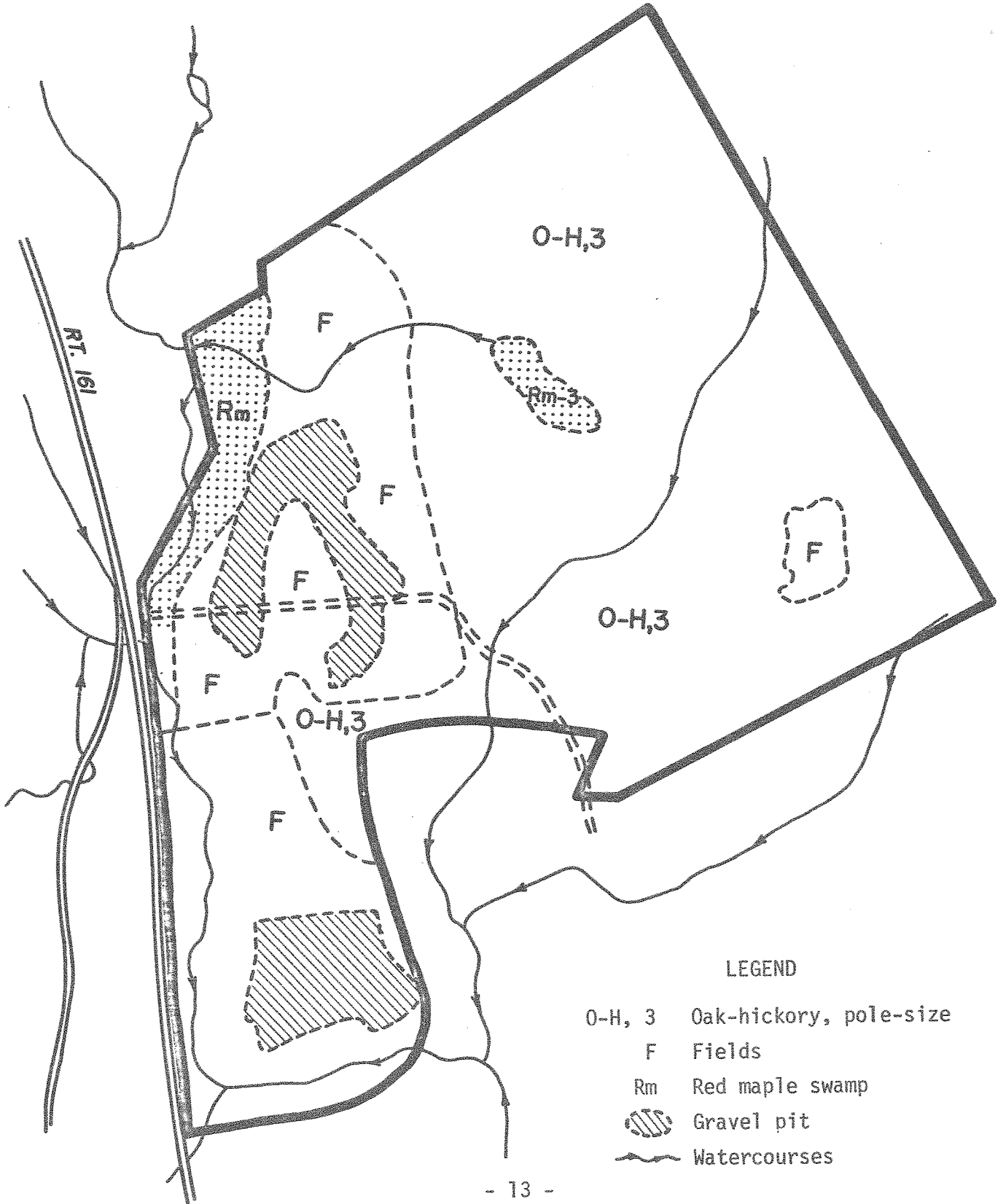
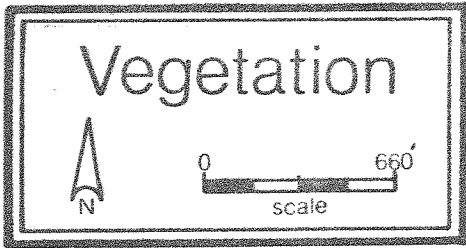
VEGETATION

There are three major vegetation types found on this site. They include approximately 50 acres of abandoned fields, an approximately 16 acre oak-hickory forest, and a 15 acre area of red maple swamp. Approximately 20 acres of formerly abandoned fields have been disturbed by the gravel excavations. These areas are delineated on the Vegetation Type Map.

Type F: The abandoned fields contain a mixture of grasses and goldenrod with scattered seedlings of red cedar, black cherry, pitch pine, hickory and various oaks. If undisturbed, this area will develop into an oak-hickory forest with other species as minor components. Small clumps of pole-sawlog size trees have already developed on parts of the fields. The site is not well-suited to growing hardwoods, and would be much more productive if conifers were introduced.

Type OH,3: The oak-hickory forest consists chiefly of pole-sized trees. Scattered large trees of poor quality also occur. The understory varies from bracken fern and huckleberry to mountain laurel thickets.

The forest is fully stocked, but not overcrowded. The site quality varies from good on concave topography, to poor on convex topography. Thus there is a mosaic of sites within the oak-hickory type. The individual sites are much too small to map, but on-site management can be tailored to suit the environment. If this area remains undisturbed, the forest will continue in its development as a medium-quality oak-hickory sawlog size stand.



The following is a list of wildflowers that were observed during the field review. It is not intended as a complete list of all wildflowers present on the site.

Asters	Joe-pye weed
Blue toadflax	Lobelias
Bugleweed	Meadowsweet
Butterfly weed	Milkweeds
Clover	New York ironweed
Gerardias	Phlox
Goldenrods	Rattlesnake plantain
Hawkweeds	Soapwort
Indian pipes	Sweet everlasting
Japanese honeysuckle	Thistles
Japanese knotweed	Yarrow

FISH RESOURCES

Latimer Brook is unique in Connecticut because of the sea-run brown trout management program in its lower reaches below the existing pond site. The brook is also unique in its ability to support stocked trout in the waters below the existing pond site. The brook is the only one in East Lyme which is stocked by the state.

Most of Latimer Brook is slow moving and depends on overhanging vegetation to maintain its cool water temperature through the warm summer months. A pond the size of the one proposed with a surface spillway would raise the brook temperature a minimum of 10°F. downstream of the pond eliminating most of the trout water now available.

With the proposed excavation of sand to 20 feet for the pond basin, another problem may arise. The area from Colchester south to East Lyme contains deposits of sulfurous minerals which, if exposed to water, will create very acid conditions in the brook below the pond, killing all the trout. This problem has occurred in the area several times in the last 5 years as a result of excavations. A spring observed in the gravel area above the proposed pond site has an abundance of iron bacteria indicating the probable presence of iron sulfide, a compound that can drastically lower water pH, making it highly acidic.

WILDLIFE

Bobwhite quail are plentiful in the wetland area. The quail is not only a fine game species, but also a songbird. It is losing its habitat at an alarming rate along the coastline. The American woodcock is another bird dependent on the wetland. Other wildlife that are fairly abundant are the white-tailed deer, numerous species of songbirds, and small mammals such as the raccoon, opossum, skunk, and native mice.

PROBABLE FUTURE ENVIRONMENT

If the site is not used for recreation purposes in the future, the flatter areas could probably be used for residential purposes. However, any use will

require major regrading and the restoration of top soil. It is doubtful that the eastern half of the site can be used for residential purposes because of the slope and bedrock conditions.

ENVIRONMENTAL IMPACT

QUANTIFIABLE LAND USE CHANGES

Acquisition of the site for recreation use should enhance the residential growth potential for other property in the area. Since the site is somewhat remote from the more densely settled parts of East Lyme, its acquisition and use aren't likely to have an impact on socio-economic conditions.

TRANSPORTATION ROUTES

As noted earlier, the site has considerable frontage on Route 161. This road could probably accommodate all traffic generated by facilities on the site.

WATER RESOURCES

The proposed open space and recreational uses should have very little, if any, noticeable impact on the local water resources. If residential development of the property, as an alternative, were to take place, particularly if on-site sewage disposal were used, harmful effects on groundwater quality would be much more likely.

Care must be taken to avoid any adverse affects to Latimer Brook, which runs along the western border of the property. This is a fairly slow moving, cool, well-vegetated stream and could easily be seriously affected by soil runoff from the adjacent land. All of the runoff from this site should be well-controlled. The gravel pit/pond and Latimer Brook should not be connected.

VEGETATION

Because recreational use of the wooded areas would probably be widely dispersed, impact on the vegetation would be slight. There may be some soil compaction and trampling of small plants along trails, thus increasing erosion and reducing aesthetic appeal. Effects of recreational use of the open areas will depend on the landscape alterations made.

WILDLIFE

There appears to be an existing population of deer in the wooded hills that could be affected by the clearing of land or by active recreational use of the wooded hillside.

MITIGATING MEASURES INCLUDED IN THE PROPOSAL

The primary mitigating measures needed are restoration of the land to where it can withstand recreational use. Controlled levels of use will be needed to allow the land to restore and maintain itself. Parking lot runoff can be directed to a dispersal or retention area.

Vegetation management should include a plan to guide thinning and harvesting activities in the wooded areas. Well-supervised logging operations would provide revenue for the Town, maintain the health of the forest, and provide an example of wise land management which does not interfere with recreation. A professional forester should be retained to assist the Town in writing and implementing the plan.

Trampling of small plants could be reduced by establishing clearly marked trails, bordered by rocks or logs, and leaving brush intact in the woods.

Careful trail layout and placement of occasional water bars would reduce erosion on trails.

ADVERSE ENVIRONMENTAL EFFECTS

Acquisition of this property would cause no adverse environmental effects.

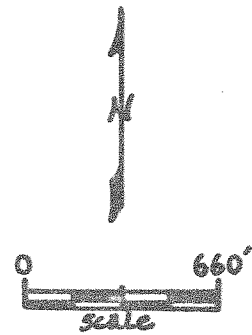
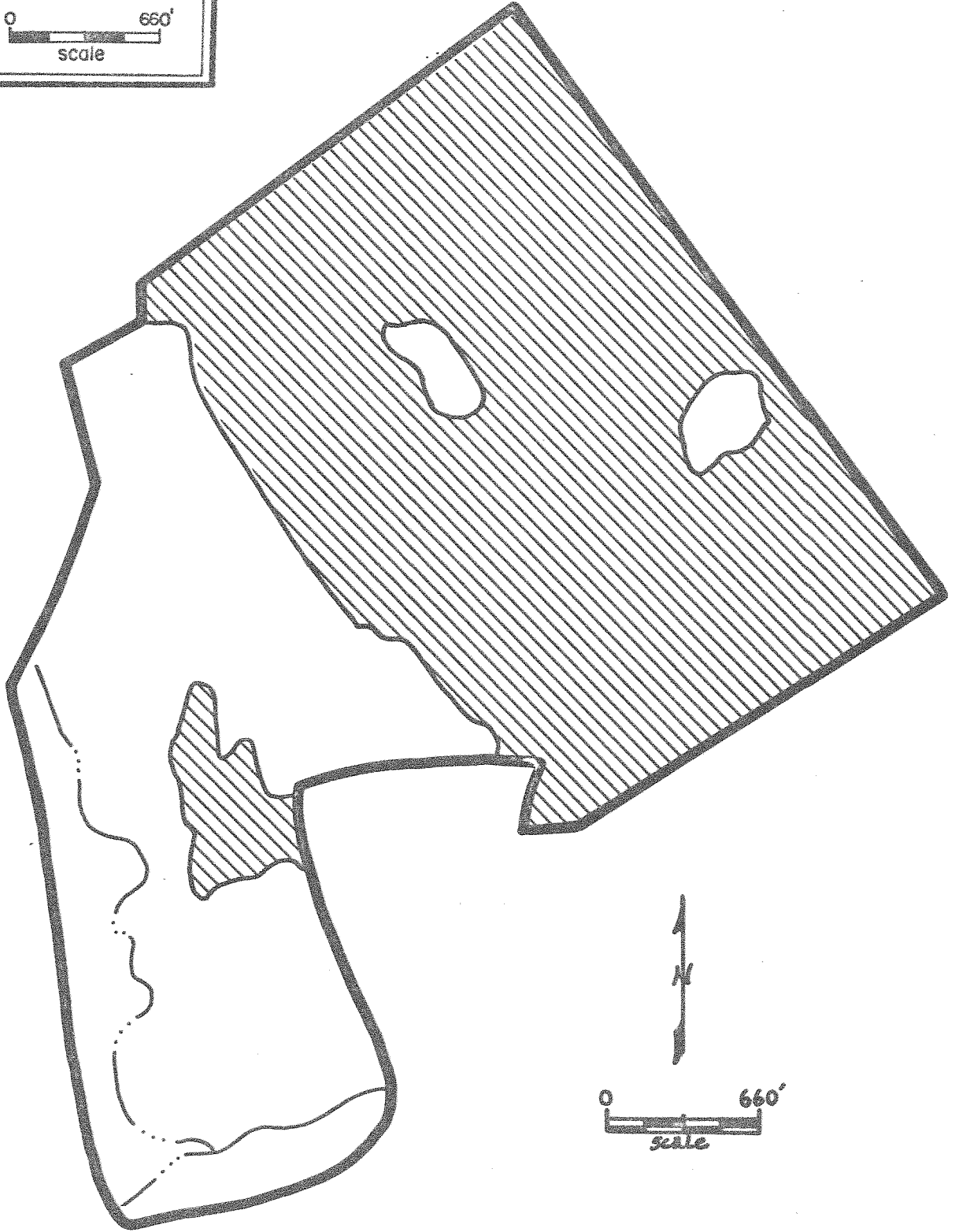
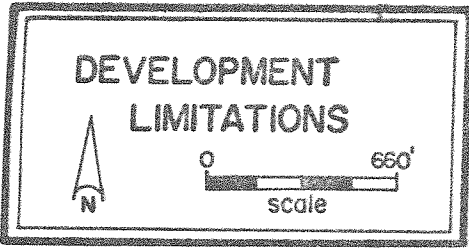
SHORT TERM VS. LONG TERM VALUES

Removal of additional sand and/or gravel from the open areas may provide long term benefits for vegetation, by establishing a new ground level closer to the permanent water table. However, other factors need to be considered in this regard.

Because the proposed uses would have a slight impact on the vegetation in the wooded areas, long-term site quality and productivity would not be compromised. The project would insure protection of valuable green space in an area being subjected to intense development pressure.

IRREVERSIBLE COMMITMENTS OF RESOURCES

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



 Soils shallow to bedrock, excessive stoniness.

RECREATION POTENTIAL

The gravel mining area would lend itself to establishment of ballfields, a motorcycle training area, and picnicking on the unstripped areas where trees and vegetation may be found. Because of the gravel substrate, it would appear that no severe restrictions will affect such things as ballfields and play areas, because of drainage and percolation rates, although turf may be difficult to establish due to the droughty nature of these soils.

The hilly portion of the tract, which comprises the eastern half, is wooded. A looping gravel road provides access to the hillside, returning at another point in the gravel bank. There is a 2- or 3-acre field through which this road passes at a point where the road begins to loop back down the hillside. There is an old stone foundation in the field. The field would make an attractive picnic area as would many other portions of the hillside. The road would require upgrading for vehicular travel by applying processed gravel, adding water diversions, and cutting roadside brush.

In addition to picnicking, the road on the hillside would lend itself to hiking, birdwatching, mushroom picking, cross-country skiing, tobogganing, snowshoeing, etc. Hiking, motorcycling, and some logging has already been occurring in this area.

The relatively level area which could result from the mined area would lend itself to such facilities as ballfields, tennis courts, horseshoe pits, shuffleboard, jogging trails, etc. Moreover, a relatively large, open, and flat area would be suitable for kite flying, model airplane (particularly radio-controlled) flying, skeet shooting, etc.

A target shooting area might also be installed upon termination of gravel mining with suitable safeguards and using the hillside as a backstop. A "trench" range would probably be necessary because of nearby homes. A shooting area designated here is an outside consideration since it would impose severe restrictions on the use of the hillside, thereby making the choice an "either/or" proposition.

If phasing for the immediate recreation use of the hilly portion and eventual recreation use of the gravel bank satisfies the requirements for HCRS funding, this may be a viable alternative to pursue.

Cost of immediate conversion of the gravel mining area to recreation use from its present state, other than for trail bikes (motorcycles), which can use the area as is, may be prohibitive.

ALTERNATIVES TO THE PROPOSED ACTION

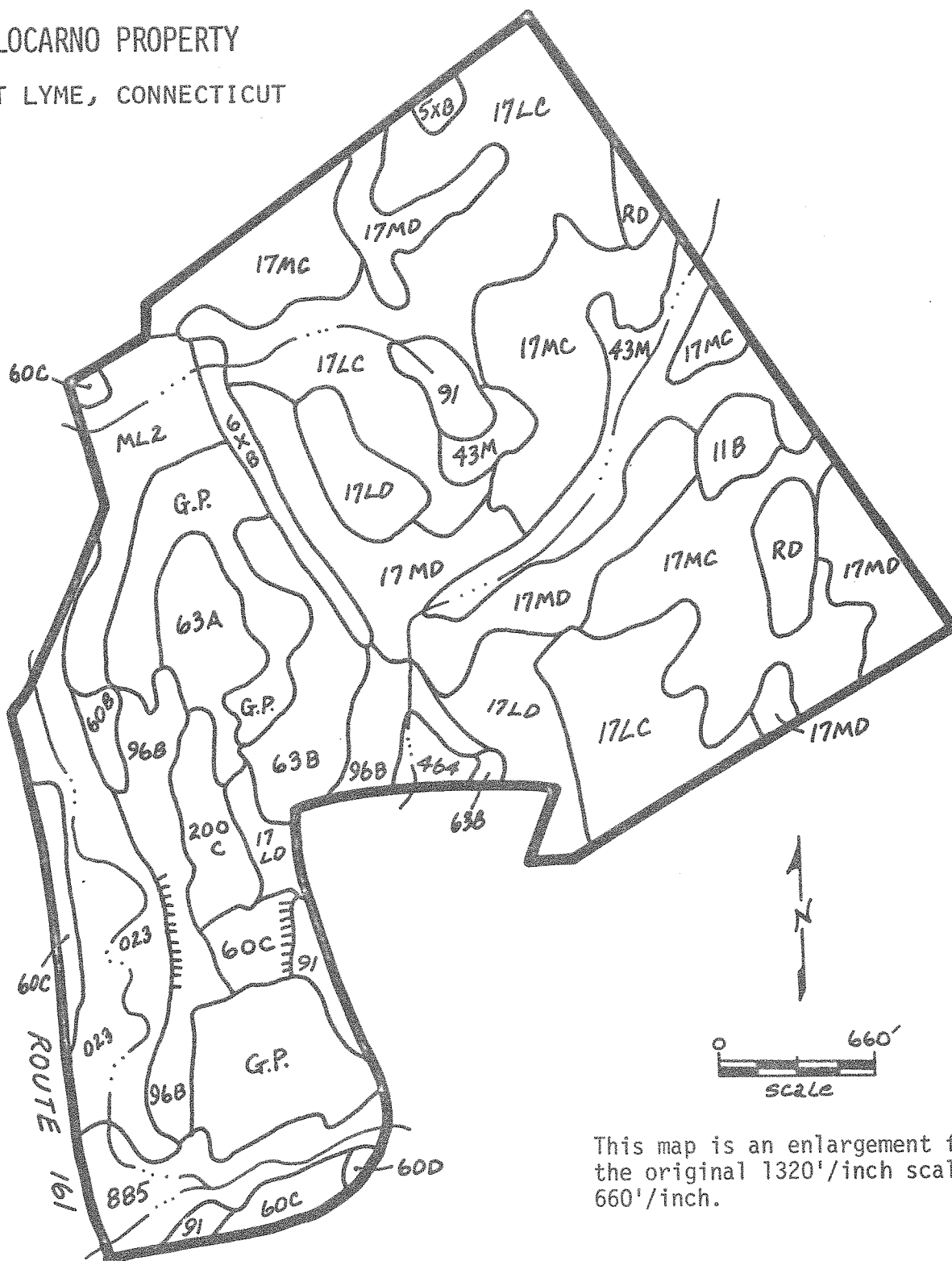
The alternatives to this acquisition include no action at all or the acquisition of some other property to accommodate the desired facilities. No action would simply result in recreation facility needs not being met. Certainly another site in the Town could physically accommodate many of the desired facilities, although the per-acre acquisition cost might be higher. However, access and development costs of the Locarno Property will probably be very high.

Appendix

SOILS

LOCARNO PROPERTY

EAST LYME, CONNECTICUT



This map is an enlargement from the original 1320'/inch scale to 660'/inch.

Information taken from: Interim Soil Survey Report, New London County, Connecticut, 1978; soil survey sheet no. 660; prepared by the United State Department of Agriculture, Soil Conservation Service, advance copy, subject to change.

LOCARNO PROPERTY
EAST LYME, CONNECTICUT

PROPORTIONAL EXTENT OF SOILS AND THEIR LIMITATIONS FOR CERTAIN LAND USES

Soil Series	Soil Symbol	Approx. Acres	Percent of Acres	Principal Limiting Factor	Urban Use Limitations*			
					On-Site Sewage	Buildings with Basements	Streets & Parking	Land-Scaping
Charlton-Hollis								
Hollis Part	17LC	42	17%	Slope, Large stones, Depth to rock	3	3	3	3
Charlton Part								
Charlton-Hollis	17LD	13	5%	Slope	3	2	2	2
Hollis	17MC	43	17%	Depth to rock	3	3	3	3
Hollis	17MD	28	11%	Slope, Depth to rock	3	3	3	3
Raypo1	464	3	1%	Wetness, Frost Action	3	3	3	3
Adrian-Palms	91	5	2%	Wetness, Flooding	3	3	3	3
Ridgebury, Leicester & Whitman	43M	14	5%	Large stones, Percs slowly	3	3	3	3
Limerick	023	15	5%	Floods, Wetness	3	3	3	3
Rumney	855	9	3%	Floods, Wetness	3	3	3	3

LOCARNO PROPERTY
EAST LYME, CONNECTICUT

PROPORTIONAL EXTENT OF SOILS AND THEIR LIMITATIONS FOR CERTAIN LAND USES

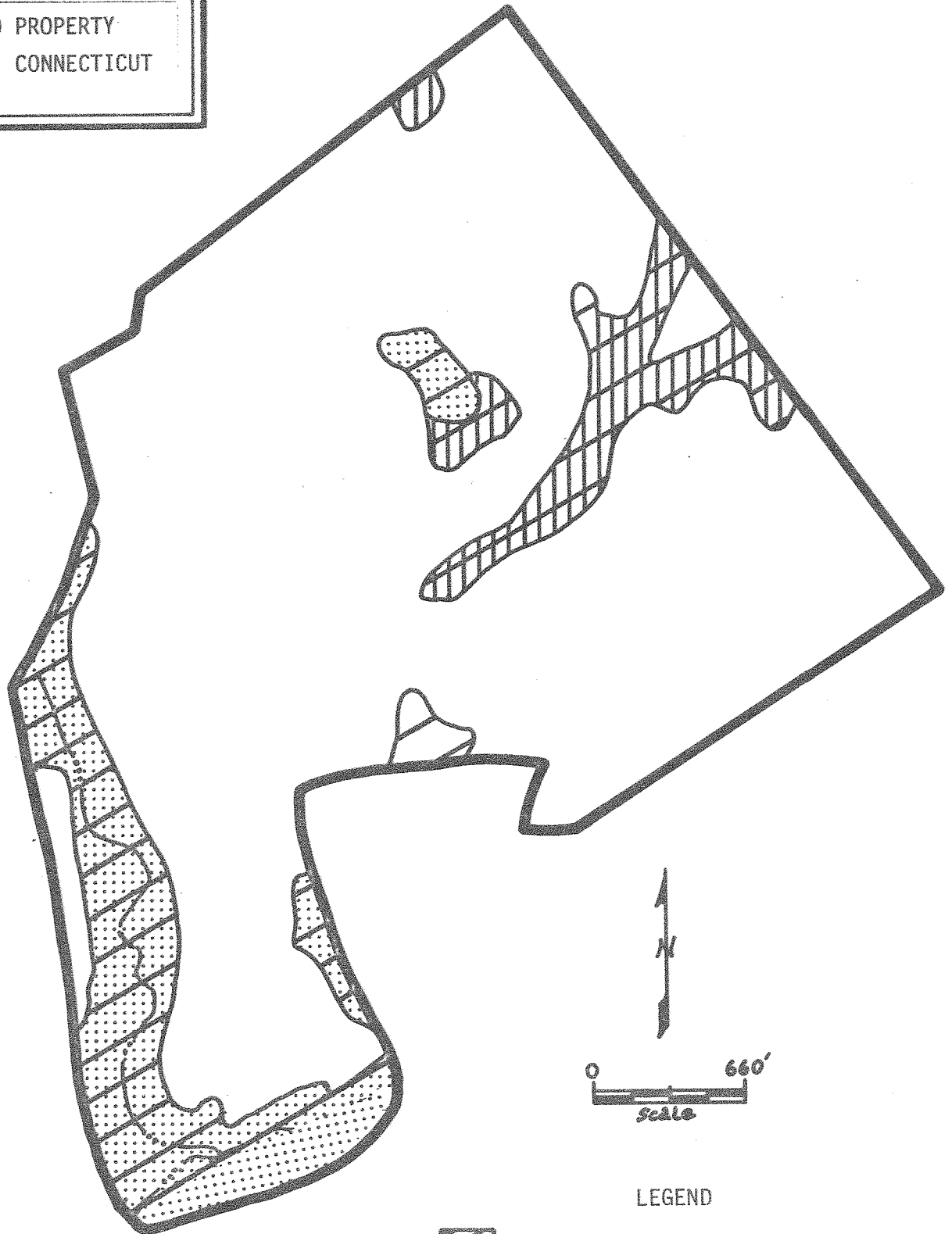
Soil Series	Soil Symbol	Approx. Acres	Percent of Acres	Principal Limiting Factor	Urban Use Limitations*			
					On-Site Sewage	Buildings with Basements	Streets & Parking	Land-Scaping
Hinckley	60B	2	1%		2	2	2	2
Hinckley	60C	9	3%	Droughtiness, Slope	2	2	2	2
Hinckley	60D	1	1%	Slope	3	3	3	3
Haven	63A	6	2%		1	1	2	1
Haven	63B	9	3%		1	1	2	1
Agawam	96B	14	5%		1	1	1	1
Canton & Charlton	11B	2	1%		1	1	1	1
Narragansett-Hollis	200C	5	2%	Slope, Large stones, Depth to rock	3	3	3	3
Narragansett	6XB	4	2%	Large stones	2	2	2	2
Montauk	5XB	2	1%	Percs slowly	3	2	2	2
Udorthents	ML2	8	3%					
Gravel Pit	GP	20	8%					
Rock Outcrop	RD	5	2%	Depth to rock	3	3	3	3

These are areas of previous extraction. Suitability can only be determined by on-site inspection.




* Limitations for Urban Uses: 1 = slight, 2 = moderate, 3 = severe.

Soils

LOCARNO PROPERTY
EAST LYME, CONNECTICUT



LEGEND

-  Wetness and frost action problems
-  Fragipan (slow percolation)
-  Floods

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.