

ENVIRONMENTAL REVIEW TEAM REPORT



CARLSON FARM ACQUISITION SHERMAN, CONNECTICUT

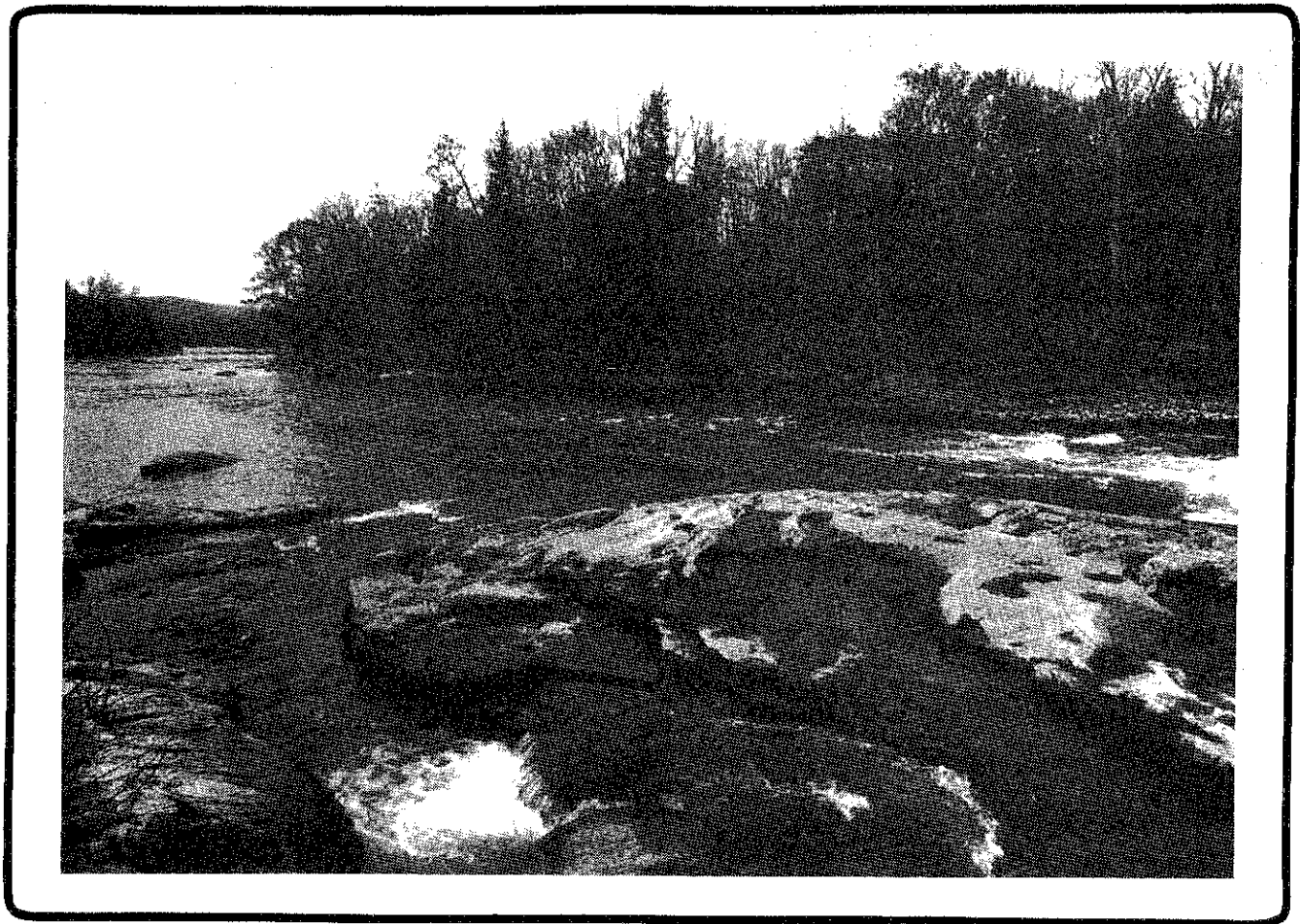
 KING'S MARK
RESOURCE CONSERVATION AND DEVELOPMENT AREA

**KING'S MARK
ENVIRONMENTAL REVIEW TEAM REPORT**

on the

**CARLSON FARM PROPERTY ACQUISITION
SHERMAN, CONNECTICUT**

DECEMBER, 1977



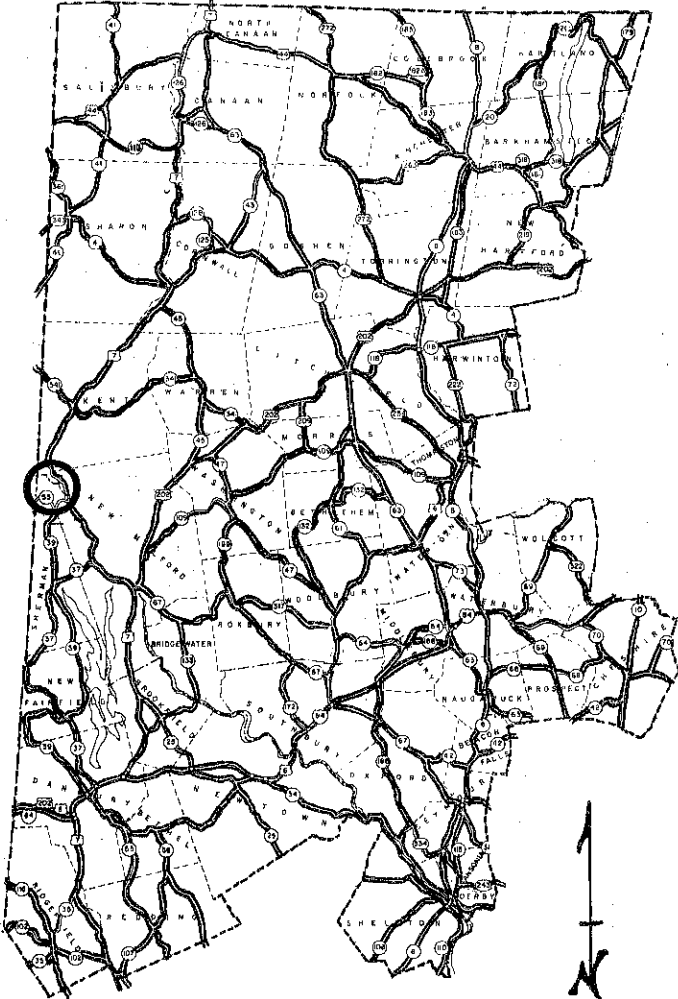
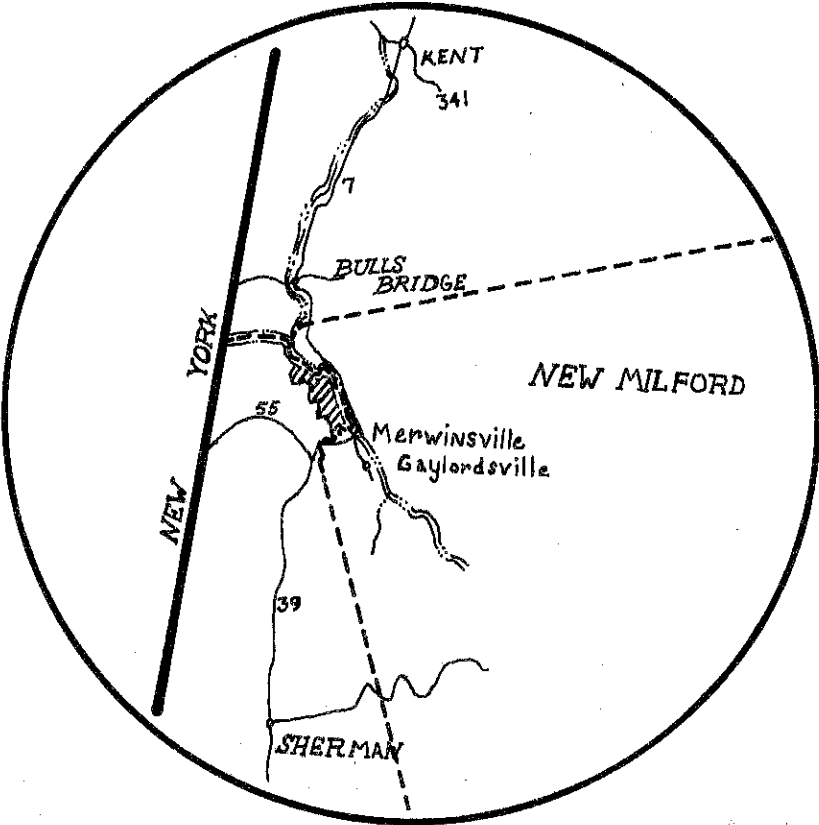
Kings Mark Resource Conservation & Development Area

Environmental Review Team

P.O. Box 30

Warren, Connecticut 06754

LOCATION OF STUDY SITE CARLSON FARM



ENVIRONMENTAL REVIEW TEAM REPORT
ON
CARLSON FARM PROPERTY ACQUISITION
SHERMAN, CONNECTICUT

INTRODUCTION

The Town of Sherman is considering the purchase of a 264 acre parcel of land in northeastern Sherman for open space and recreation purposes. The land, known as the Carlson Farm, has been designated as open space on the Comprehensive Town Plan of Development and has recently come on the market. The property is undeveloped, mostly wooded, and offers over a mile of unspoiled shorefrontage on the Housatonic River.

The "Carlson Farm Study Committee" from the Town of Sherman requested the assistance of the King's Mark Environmental Review Team (ERT) to help them in analyzing the proposed acquisition site. Specifically, the ERT was asked to undertake a land capability study to determine what open space and recreation uses would be suitable at the site. Proposed uses of the site include nature study, hiking trails, picnic areas, camping sites, snow-mobiling paths, cross country skiing trails, river uses such as canoeing and fishing, and installation of a pond for swimming. The team was also asked to identify the physical and biological resources of the site and discuss how these resources would affect, and be affected by, the proposed acquisition.

The ERT met and field reviewed the site on Thursday, November 3, 1977. Team members for this review consisted of the following:

David Thompson. . .	District Conservationist.	Soil Conservation Service
Timothy Dodge. . .	Wildlife Biologist	Soil Conservation Service
Robert Miller . . .	Geologist	Connecticut Department of Environmental Protection
Mike Pochan	Forester	Connecticut Department of Environmental Protection
Robert Orciari. . .	Fishery Biologist.	Connecticut Department of Environmental Protection
Carl Stamm	Recreation Resource Specialist..	Connecticut Department of Environmental Protection
Russell Handsman. .	Archaeologist.	American Indian Archaeological Institute
Tony Sullivan . . .	Regional Planner.	Connecticut Office of Policy and Management
Jack Green	Regional Planner	Housatonic Valley Council of Elected Officials
Jane Difley	Forester	Connecticut RC&D Area

Prior to the review day, each team member was provided with a summary of the proposed project, a checklist of concerns to address, a soil survey map, a soils limitation chart, and a topographic map of the area. 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. It identifies the natural resource base of the site and highlights opportunities and limitations for open space/recreation development. It is hoped this information will assist the town of Sherman in making decisions regarding the future of the Carlson Farm property.

If any additional information is required, please contact Richard Lynn (868-7342), Environmental Review Team Coordinator, King's Mark RC&D Area, P. O. Box 30, Warren, Connecticut.

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SUMMARY OF MAJOR FINDINGS

- . The site has outstanding aesthetic appeal due to its varied topography, diversity of vegetation, and its location on the Housatonic River.
- . There are no soil or topographic limitations associated with the surficial resources of this property that would prevent its complete utilization for open space and recreation purposes.
- . It is estimated that 90,000 cubic yards of mineable sand and gravel exist on the property. If the sand and gravel operation is continued, it should be well planned to allow effective and efficient reclamation of the disturbed land for future use.
- . The area is of high value to wildlife, and the Housatonic River offers good fishing (although the Connecticut Commissioner of Health has warned against eating the fish due to PCB levels).
- . There are no obvious cultural resources which are going to be adversely impacted by the proposed land acquisition program.
- . The site lends itself to a wide range of recreational uses and open space functions including: picnic areas, camping areas, multi-purpose trails, fishing, canoeing, and active recreation areas (ballfields, tennis courts, etc.). Snow-mobiling on the site is not recommended nor is swimming in the Housatonic River.
- . The possibility of creating a pond exists, but more detailed investigation is required.
- . All recent planning reports for the Town and surrounding region point to the need for additional open space/recreation land. The Town of Sherman's current "Community Development Action Plan" recommends purchase of the property for open space/recreation, finding the area "as beautiful and spectacular as anything in the state".
- . Together with any recreational development of the site should be an effective program of natural resource management to ensure the protection and enhancement of aesthetics, wildlife habitat, vegetation, and other open space/recreation values.
- . A comprehensive recreation and resource management plan for the entire area should be made prior to any actual development.

SITE DESCRIPTION

SETTING, TOPOGRAPHY, LAND USE

The Carlson Farm property is located at the extreme northern tip of the Town of Sherman. The property is bounded on the north and east by the Housatonic River (1 ½ miles of frontage), on the south by Evans Hill Road, and on the west by privately owned woodland (see figure 1). The Town of Sherman together with its surrounding regional area is essentially rural in character and there are no known proposed activities which would change this character.

The Carlson Farm tract rises steeply from the river along the southern half of its frontage forming precipitous escarpments. The remaining frontage consists of broad, nearly level areas at the same elevation as the river.

Evans Hill and Tenmile Hill cascade abruptly from the west forming a topographic bench of gently rolling terrain on which the bulk of the land lies.

The land has been in agricultural use for many generations. Early aerial photos show all but the steepest areas being fully utilized. By 1941, a decline in use became evident as red cedars appeared in the pastures and the wooded field boundaries began to encroach. By 1951 the population of red cedars had exploded, the encroachment of the woodland was quite obvious and the extraction of sand and gravel had begun in earnest. During the ensuing twenty years, land use declined dramatically. Insurgent hardwood saplings seized all but two meadows and the mining operation expanded with equal vigor.

Today, the mining operation has ceased and the transitional forces of nature are in full command. Of the total 264 acres, approximately 15 acres are in open meadows, 60 acres are in transitional meadowland, 163 acres are in woodland, 25 acres have been disturbed by the removal of sand and gravel, and one acre is occupied by the existing farm buildings at the southern edge of the property.

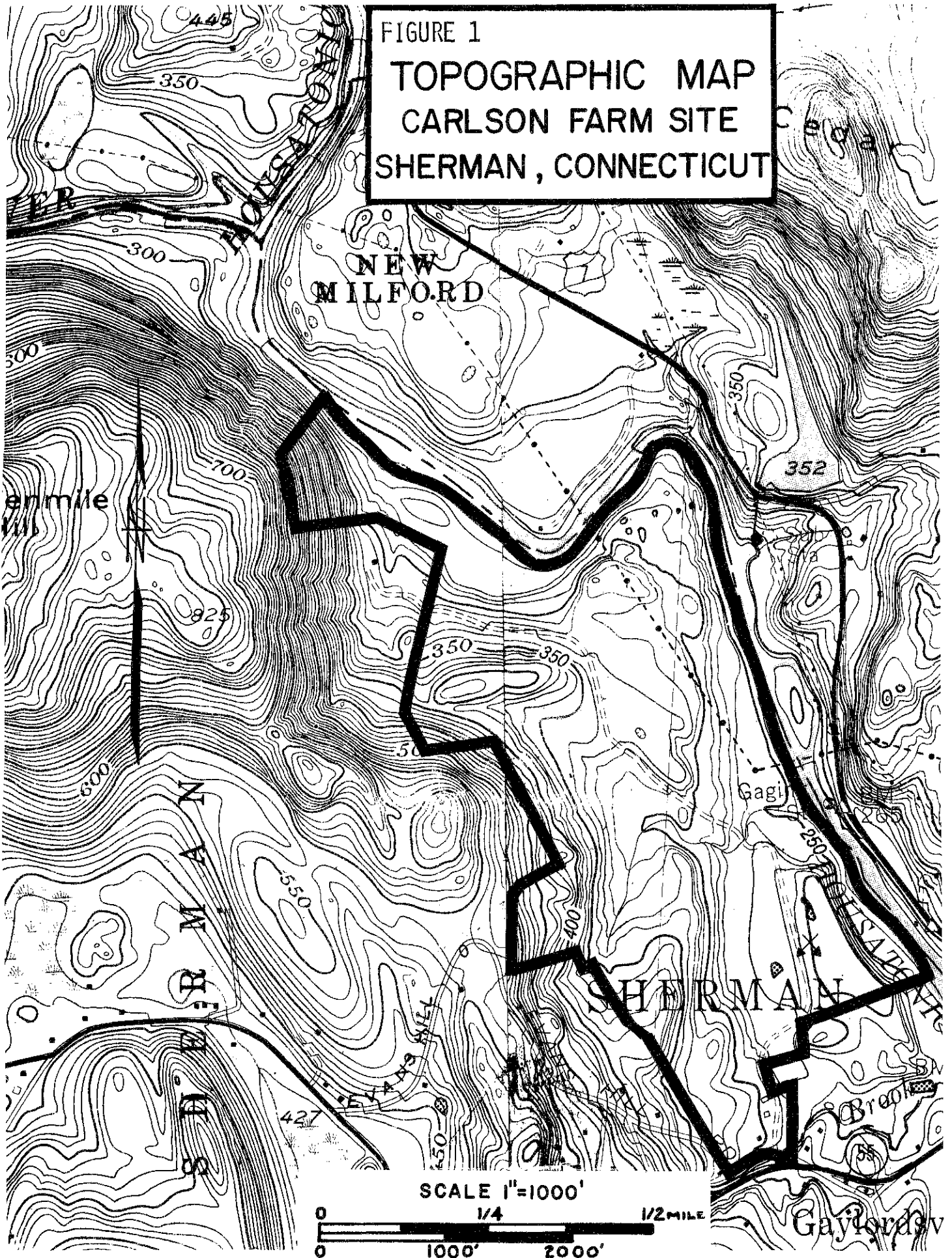
Present land use is restricted to two small fields of cropland (field corn harvested for silage) and a Connecticut Light and Power transmission line which extends for about 1/2 mile along the eastern portion of the property. Access to the property is from the south - off Route 55 on Evans Hill Road.

SOILS

A detailed soil survey map, soils limitation chart, and a description of all soils identified on the property is given in the appendix.

Basically there are thirteen soil types on the property which fall into five natural soil groups. These five natural soil groups include:

FIGURE 1
TOPOGRAPHIC MAP
CARLSON FARM SITE
SHERMAN, CONNECTICUT



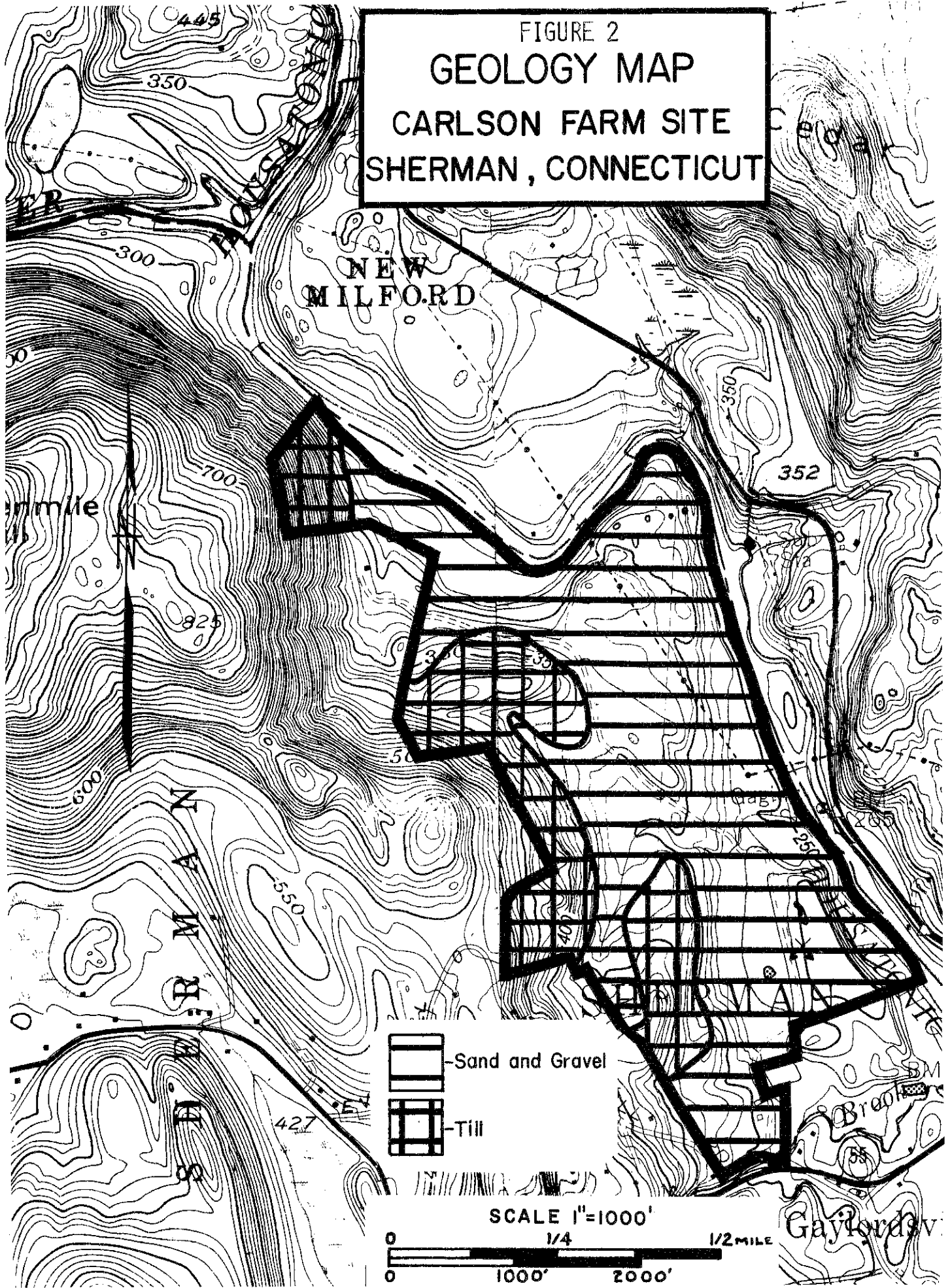
- A. Terrace Soils - Over Sands and Gravels (47.2% of site)
The terrace soils occur above flood plains in river and stream valleys. They are underlain by water-deposited beds of sand or sand and gravel. In most places a few inches to 3 feet of loamy or fine sandy material cover the older, coarser water deposits. Nearly all sources of sand and gravel, and many of the important sources of water supply, are in areas associated with the terrace soils.
- B. Upland Soils - Friable to Firm Glacial Till (6.5% of site)
The soils in this group are formed in the thicker, unconsolidated deposits of till usually occurring on hillsides. The capacity of these soils to hold water for plant growth is good where the till is loamy, but is fair to poor on the sandy till. Stones and large boulders are common in these glacial deposits and add difficulty when excavating or earth moving operations are needed.
- C. Upland Soils - Over Compact Glacial Till (hardpan) (5.1% of site)
These soils occur mostly on the tops and slopes of drumlins-hills that were smoothed and elongated north to south by the movement of glaciers. The soils are underlain by compact glacial till and have a hardpan 16 to 36 inches below the soil surface. Permeability above the hardpan is moderate but the pan drastically reduces percolation. During wet seasons, excess water in the soil moves downslope above the hardpan. The till commonly contains stones and boulders which add difficulty when excavating or earth moving operations are needed. These soils have good moisture-holding capacity for plant growth. Exceptional panoramic views are afforded from the higher areas.
- D. Upland Soils - Rocky and Shallow to Bedrock (21.8% of site)
The soils of this group occur mostly in the rougher areas of the uplands. They may occupy narrow ridge tops but most often are on steep side slopes. The soils are underlain by hard bedrock and the areas contain barren rock outcrops. In most places, hard rock is less than 20 inches below the soil surface. These areas provide contrast in the landscape and scenic overlooks.
- E. Flood Plain Soils (3.3% of site)
The soils of this group occur on nearly level flood plains in stream valleys. They are formed in loamy deposits several inches to a few feet thick overlying sand and gravel layers. These soils are subject to flooding with the lower lying, poorer drained soils being flooded most often.

The geographic distribution of these five natural soil groups can be ascertained from the Soils Map and Soils Limitation Chart located in the appendix.

GEOLOGY

The surface materials which cover this site are of two types: sand and gravel, and till (see Figure 2). The sand and gravel was generally

FIGURE 2
GEOLOGY MAP
CARLSON FARM SITE
SHERMAN, CONNECTICUT



deposited by melting glacial ice rivers, which flowed through the Housatonic Valley. The majority of this material is found within the terraces located along the valley walls. The finer sand and gravel deposits located along the present river's edge were deposited by post glacial flooding.

Both types of sand and gravel located on this site are of economic value. The amount of material available for mining is dependent on several factors: the areal extent of material, the depth to bedrock, and the depth to watertable. Figure 3 shows the areal extent of usable sand and gravel. Incorporating the depth to bedrock and watertable into these two areas gives an estimate of approximately 90,000 cubic yards of minable material.

The remaining surficial deposit found on this site is till. Similar to the sand and gravel, till was formed by glacial action. The difference between the two deposits is that the till was deposited directly by the ice and not carried away by any melting glacial waters. Unlike the well-sorted sand and gravels the till is a combination of all grain sizes from fine clays with diameters of less than .02 millimeters up to boulders of over 200 millimeters. Because of this variation in grain sizes till makes a very poor construction aggregate and is of little economic value.

One very interesting glacial geology feature observed at specific locations on this site was the formation of potholes by melting glacial waters. These features can be observed at the outcrops shown in Figure 4.

HYDROLOGY

All drainage, both surface and groundwater, for the site investigated flows into the Housatonic River. Water falling on the northern section of the site drains directly into the River while that in the southern section flows towards an unnamed brook which in turn flows into the Housatonic. Figure 5 shows the approximate limits of the 100 year reoccurrence flood level¹ for this stretch of the Housatonic.


Figure 6 indicates a region within the site which has potential for being a favorable aquifer area. Unfortunately not enough data exists within this area to establish approximations on water available for withdrawal. Field investigation indicates though that due to the shallowness of bedrock large production wells may be prohibitive. Multi-shallow pumping wells may be feasible within the indicated area.

VEGETATION

The woodlands, fields, and river banks of the Carlson Farm property support a rich diversity of vegetation.

¹The 100 year reoccurrence flood level is that area of land which would be inundated by a flood that has a 1 in 100 chance of occurring in any given year.

FIGURE 3

 Mineable sands & gravel

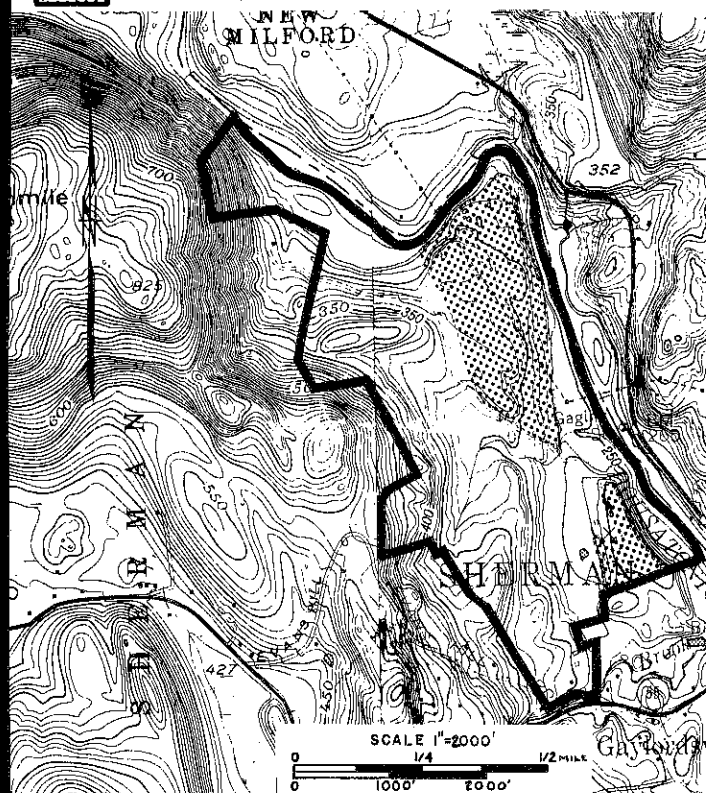


FIGURE 4

 Bedrock outcrops which show glacial activity



FIGURE 5

 Approximate level of 100yr. Reoccurrence flood

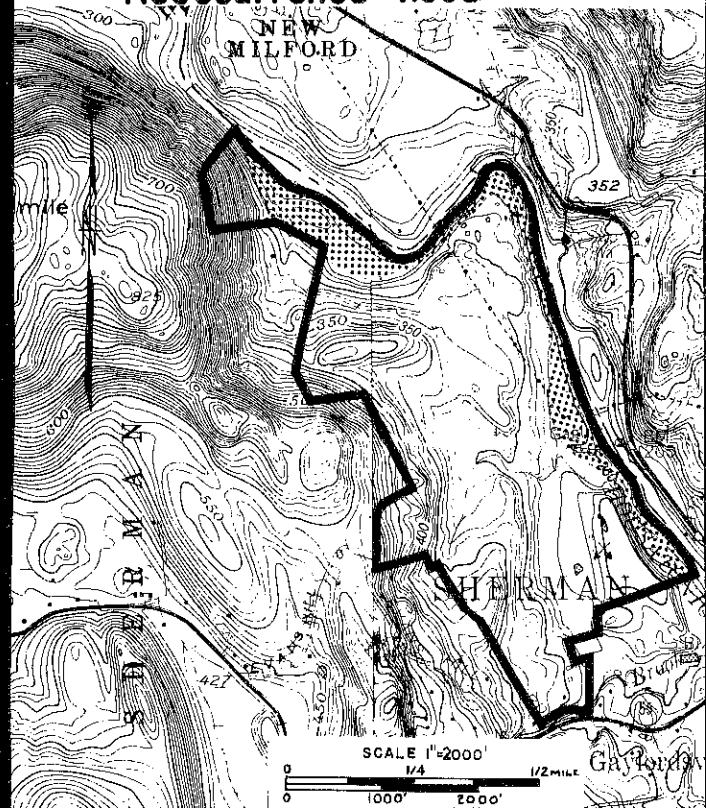
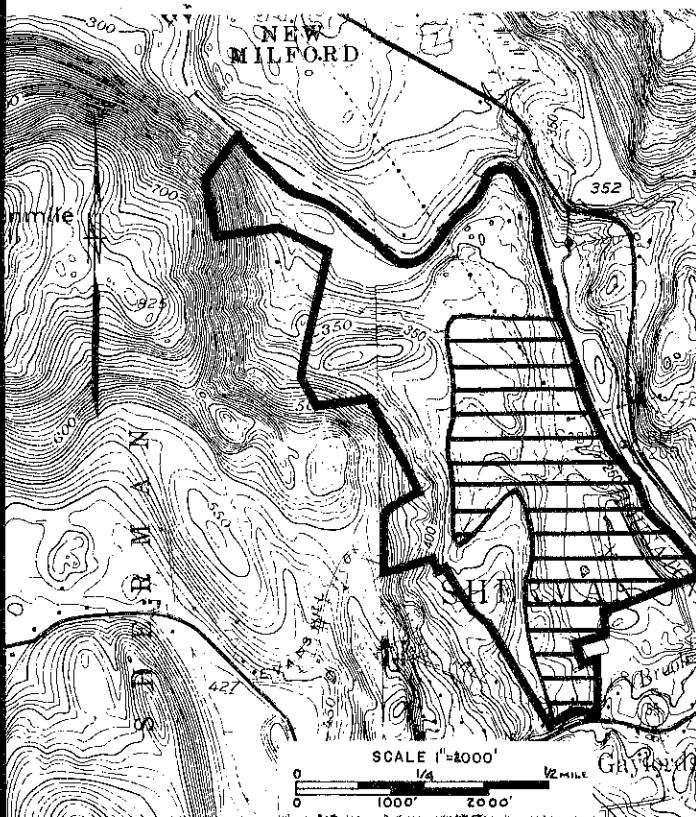


FIGURE 6

 Potential Aquifer Area



There are four forest types on the property. Eastern red cedar (*Juniperus virginiana*) occupies abandoned pastureland. Bottom land species (cottonwoods, sycamore and red maple) grow along the Housatonic River. Hemlock grows in the northwestern portion of the tract. Oak and other hardwoods (aspen, cherry, maple, elm, birch, tulip tree) occupy the north-east corner and west-central portion of the farm (see Figure 7).

The cedars present are predominately pole-sized² with a grass understory. They are the first woody invaders of old pastures and without disturbance will be replaced by hardwoods in the natural process of succession.

Both the hardwoods and the hemlock in the northern parts of the tract have been cut over recently. This logging operation has left many scarred trees and scattered areas of slash. The residual pole sized stands form a dense woodland of poor to medium commercial quality.

Overgrown fields on the property consist of young trees, shrubs, vines, annual weeds, perennial weeds, and grasses. Species include, but are not limited to privets, briars, bush honeysuckle, grapevine, viburnums, sapling sized cherry, buckthorn, birch and American elm. Weeds include ragweed, goldenrod, milk weed, little blue stem, burdock, pig weed and poke weed. There is a large diversity of flowers and herbs including the uncommon fringe gentian.

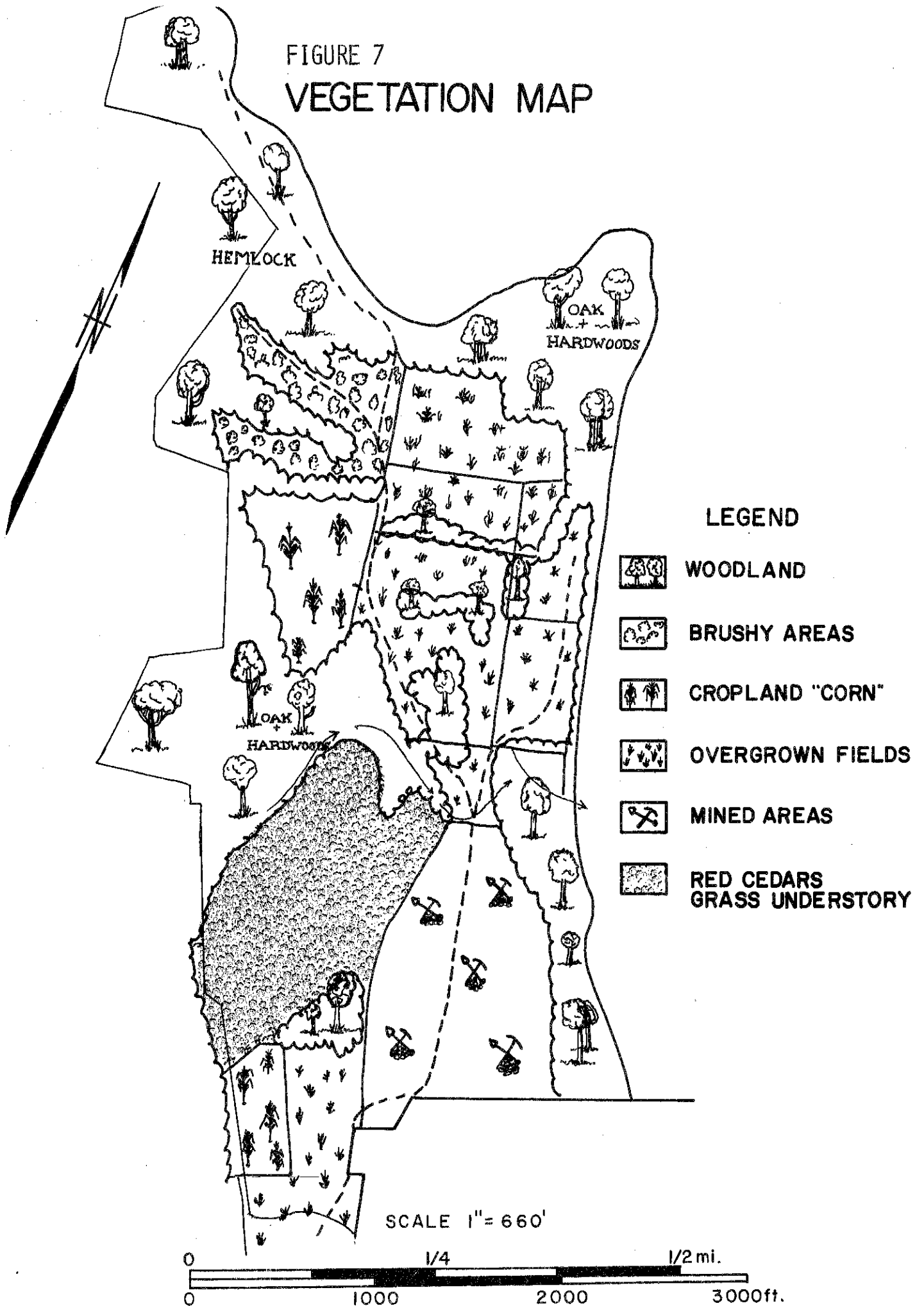
In addition to woodland and overgrown fields on the property, there are brushy areas of second and third growth hardwoods intermixed with red cedar, vines, and other shrubs. Also, there are two small fields of cropland on the property producing field corn harvested for silage. The abandoned gravel mine supports sparse vegetation including scattered perennial weeds.

WILDLIFE







The Carlson Farm site contains three major types of wildlife habitat. The first of these is streambelt habitat which includes the land and vegetation contiguous to the Housatonic River. Streambelt habitat exists the length of river frontage and extends inland approximately 100 feet from the waters edge. This area provides elements of habitat to animals which require both aquatic and dryland vegetation to meet their needs for food and cover. Animals which use this type habitat include birdlife such as black and mallard ducks, the belted kingfisher, warblers; and fur bearers, including mink, muskrat, and raccoon. Other species include bullfrog, leopard frog, northern water snake and redback salamander. The quality of this habitat is good. The present land use trends indicate the vegetation and water will continue to support this type of animal community and at present population densities.

²Pole sized trees are 3" - 9" in diameter at breast height - dbh.

FIGURE 7
VEGETATION MAP



LEGEND

-  WOODLAND
-  BRUSHY AREAS
-  CROPLAND "CORN"
-  OVERGROWN FIELDS
-  MINED AREAS
-  RED CEDARS
GRASS UNDERSTORY

SCALE 1" = 660'



The second major type of habitat present is openland habitat. This encompasses approximately 75 acres and includes: grassland, land used for production of silage corn, fields vegetated to annual and perennial weeds and low to medium tall shrubs and vines, and fence line vegetation between fields. Fence lines are dominated by trees, shrubs, and vines. Animals which require this type of habitat include seasonal songbirds (both seed eaters and insectivorous birds), cottontail rabbit, eastern chipmuck, fieldmice, American woodcock (in wetter areas vegetated to alders, poplar, and winterberry), woodchuck, mourning dove, bobwhite quail, red fox, and skunk. The present quality of this habitat is excellent. As growth continues and trees replace shrubs, vines, and weeds, the quality will decrease. Quality habitat should remain and support existing populations for at least five more years.

The third major type habitat present is woodland, and accounts for approximately 163 acres. This includes the mixed hardwood trees present, shrubs and vines with associated understory vegetation, and scattered evergreen. Animals which utilize this type habitat include the white tailed deer, ruffed grouse, raccoon, opossum, gray and red squirrel, and seasonal songbirds, including seed eaters and insectivorous birds. The quality of this habitat is good, and excellent in places where the understory growth is most dense. The quality and quantity should remain and sustain present population densities and diversity. Most animal species are common and population levels are probably moderate to high.

Proposed recreation activities of a passive nature, i.e. hiking, cross-country skiing, etc., would not adversely affect these habitat values. Those activities which require major land and vegetation alterations such as ballfields, playing courts, etc., will affect the various habitat where development occurs. The gravel mined areas and areas adjacent to it, especially on the south side, has some human disturbance factors present and would be least affected by development.

Due, in part, to the largely underdeveloped nature of the site and surrounding areas, and the largeness of the site, i.e. about 264 acres, the area is of high value to wildlife. While no unique species or species habitat was identified, the wildlife population including the white-tailed deer are very important.

FISHERIES

The most abundant species present along the Carlson Farm length of river is smallmouth bass. Rock bass and tallfish (commonly called dace by fishermen) are also abundant. Brown trout and brook trout are common, while largemouth bass and yellow perch are present, but much less abundant.

Trout are not presently stocked in this stretch. It is possible that the trout found there originate from the Tenmile River, which is stocked in New York. These trout are apparently capable of holding over from one year to the next and some may even be wild. Most trout observed in this section have acquired pink flesh, beautiful external colors and fine

transparent fins, as well as a few external black spot parasites. These characteristics are not typical of recently stocked trout.

Some fish species in the Housatonic River have Polychlorinated biphenyl (PCB) levels exceeding the safety limit established by the U. S. Food and Drug Administration. Therefore, the Connecticut Commissioner of Health has warned against eating fish from the Massachusetts border downstream to the Stevenson Dam at Lake Zoar. The Connecticut Commissioner of Environmental Protection has advised anglers to release fish unharmed in the interest of good sportsmanship. However, fishing for fun in the Carlson Farm river length should be excellent, particularly for 8 - 10 inch smallmouth bass and for trout. The aesthetic value of the Housatonic River and the surrounding terrain is high and would greatly add to an angler's fishing experience.

CULTURAL RESOURCES

A cultural resource reconnaissance of the property revealed no obvious cultural resources which are going to be adversely impacted by the proposed land acquisition program. Ground surface disturbance has already destroyed the integrity of known archaeological deposits on the tract. However, there are portions of the tract which may contain subsurface deposits/structures of both the prehistoric and historic periods. These areas include 1) portions of the tract which are adjacent to the Housatonic, on the northern and eastern boundaries, and 2) land sections to the west, along the ridge and adjacent to the house and barns. Most of these sites will lie on top of or immediately below the ground surface so that care must be taken during the development of the recreation area.

There is some indication that a portion of the tract may have served as a residence/workshop for Roger Sherman, Connecticut patriot and signer of the Declaration of Independence. If further archival research substantiates this claim, then there is an obvious historic value to the proposed acquisition plan, as long as recreational uses of the tract do not harm this problematical cultural resource.

Lack of knowledge precludes the development of cultural resource educational exhibits at the site at this time. However, results from the American Indian Archaeological Institute's (AIAI) planned field research in the Housatonic Valley in 1978 may allow the AIAI to develop a series of exhibits for use in the proposed recreational park at the Carlson Farm. (For a more detailed discussion of cultural resources at the Carlson Farm site, see "Handsman, Russell "A Cultural Resource Reconnaissance of the Carlson Farm Tract, Sherman, Connecticut" available at the King's Mark ERT Offices or the AIAI's offices in Washington, Connecticut).

OPPORTUNITIES AND LIMITATIONS FOR RECREATIONAL DEVELOPMENT

DEVELOPMENT POTENTIAL

There are no soil or topographic limitations associated with the surficial resources of this property that would prevent its complete utilization for open space and recreation purposes. The site has outstanding aesthetic appeal (with the exception of the gravel mining areas) due to its varied topography, open grasslands and wooded vegetation types, and its location on the Housatonic River. Also, the site is accessible, requires a minimal amount of site development, and can support continued high intensity utilization..

The use of the site for open space and recreation would have no adverse effect upon the abutting communities and would not be incompatible with adjacent land uses.

For open space and recreation use, it is recommended that one half of the property be used without alteration. Steep slopes, wetlands and flood-prone areas are all included in this portion and constitute approximately one hundred twenty-four acres. (Figure 8 illustrates the extent and configuration of these conditions.)

By utilizing these natural land forms as buffers, the remaining land can be divided into ten development areas. Area I includes the farm buildings and adjacent land. Area II is the primary mining site. Areas III, IV, VI, VII, VIII and IX are all meadowlands with full range adaptability for recreational use. Areas V and X are the primary access points to the river. The natural areas referenced above constitute an eleventh area which affords opportunities for multi-purpose trails, informal camping sites, and provisions for the continued prosperity of the wildlife population.

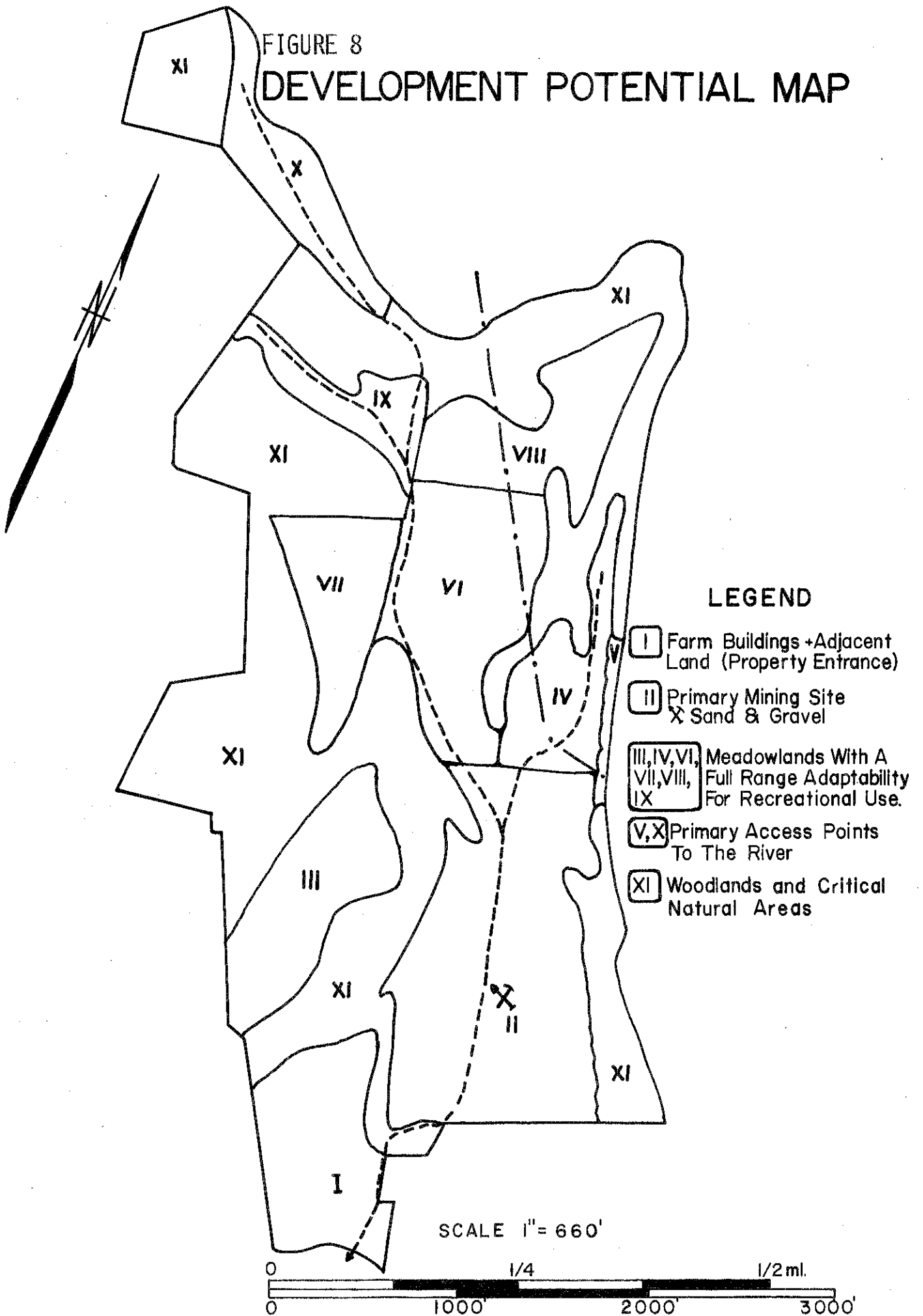
The restoration of Area II is not viewed as a drawback to the implementation of a multi-purpose recreation/open space plan. A team sport area will undoubtedly be of high priority. This will necessitate the preparation of extensive level areas. The existing terrain is reasonably uniform, sufficient, easily workable material, is readily available for regrading and the original top soil remains in stock piles. The only effort required is regrading.

If a pond is created, it will be within this same area. Such an excavation will yield a surplus of material for regrading, and restore a large portion of the area in one operation. No additional land need be disturbed to introduce those activities which cannot presently be accommodated.

Considering an alternative use of the site, residential building lots could be created encompassing all two hundred sixty-four acres. Some form of multiple unit housing could be supported with equal facility. Both could occur without sacrificing the integrity of the resource base.

FIGURE 8

DEVELOPMENT POTENTIAL MAP



RECREATIONAL USE

The bulk of the property lends itself to a wide range of recreational uses and open space functions. These include:

- . trails for nature study, hiking and crosscountry skiing
- . scattered small family picnic areas with small parking areas
- . a few large group picnic areas with a shelter
- . youth group, family and canoe group primitive camping areas in the northwest corner of the property
- . an area for sliding, tobogganing and downhill skiing on the steep western boundary
- . fishing along Housatonic River
- . canoeing on Housatonic River
- . active recreation areas (ballfields, playgrounds, tennis courts)

A concession type of operation at the existing barns could also be established. The barns are structurally sound and could serve as a rental shop for sports equipment, entrance control point, or equipment storage point.

Also, with adequate interest, Christmas trees could be planted on this site to provide an income. However, Christmas tree plantations require consistent care (shearing, fertilizing and pest control) to produce saleable trees. No trees could be sold for a least eight years after planting and theft of trees is a possible drawback on public land.

If a recreation pond were contemplated in the development of this site, the volume of water from the stream alone would not satisfy State Health Department requirements of one thousand gallons per swimmer per day. The aquifer supply could be used to augment the stream supply in either of the following ways: shallow pumping wells could be drilled into it to retrieve water, or the pond could be designed to intercept the aquifer. An alternative source of water is to divert water directly from the Housatonic.

The location of any created pond on this site should be kept as close to the river as possible but remain outside the 100-year recurrence flood level. Locating the pond near the river has two advantages:

- (1) the thickest deposits for groundwater will generally be formed here, and
- (2) this is the area where the watertable will fluctuate the least thus allowing for a more constant supply of water.

The construction of this type of facility would naturally require more detailed investigation including the type of soils in the specific area; the elevation of the ground water; and the source, quantity and quality of the water supply. Cost estimates should also be secured and scrutinized as such a swimming facility could prove an expensive proposition to construct and maintain.

As the Carlson Farm is too small to provide a quality snowmobile experience and the area is quite suitable for cross country ski use, snowmobiling is not a recommended use of the area.

In addition, swimming in the Housatonic River is not recommended due to the swift flowing river and highly erodible river banks. A few paths to the river should be cleared however to facilitate access for fishermen and canoeists.

NATURAL RESOURCE MANAGEMENT

Together with any recreational development of the site should be an effective program of natural resource management. This will ensure protection and enhancement of aesthetics, wildlife habitat, vegetation, and other open space/recreation values.

The woodland areas, old fields, and least accessible land may lend itself best to wildlife management techniques. Management techniques which might be implemented, and which would benefit wildlife include maintaining overgrown land in an open, somewhat youthful stage of succession with dense growth of annual and perennial weeds. Grasses should be encouraged in at least one of the field areas to increase plant diversity. Leaving three to five rows of corn unharvested in cropfields would also benefit most animals. Wooded areas should be managed for uneven aged timber for maintaining wildlife habitat values. Mast producing trees should be release cut where necessary to stimulate growth and mast production. The tree canopy should not become so dense that understory vegetation is shaded out. Cutback boarders around the woodland perimeter and placement of brushpiles would benefit rabbits, songbirds, and ruffed grouse.

It is doubtful that a commercial sawlog harvest on the property will be economical in the near future. A firewood cut, properly marked by a forester, could leave the woodland area in a better visual condition. Clean-up work in the hemlocks would also improve aesthetics.

The red cedar on the abandoned pastureland has commercial value as fenceposts, but most of the cedars should be retained for visual variety, wildlife food and cover, and as an example of old field succession. Some of the cedars are among the largest found in the State -- up to two feet in diameter at breast height.

If the abandoned gravel mine was regraded and dressed with topsoil, it could be planted with larch and white pine in conjunction with any planned active recreation areas or swimming facility. Larch is a fast growing species that provides some protection for the pine against weevil damage. Pine is a commercial timber species that does well on well-drained sandy soils.

If the sand and gravel operation is continued, vegetative buffer strips are recommended along the roadway running through the mined area. It is also suggested that any mining to be done on the site be planned to allow effective and efficient reclamation of the disturbed land for future use.

An effective program of maintenance should also be established (e.g. cleanup, trail and open field maintenance, playground maintenance) to enhance and protect the recreational and open space amenities of the property.

RECREATION NEED

High quality open space/recreation land is a valuable community asset. It benefits community health and morale, improves aesthetics, increases the value of surrounding reality, and protects the natural resource base. Such lands are becoming increasingly difficult to obtain as growth and development occur. In addition, as residential development increases, the demand for recreational land and facilities also increases.

This increased demand is evidenced in the town of Sherman as population has tripled in the past 25 years (Housatonic Valley Council of Elected Officials, Regional Population Statistics, 1975), and population projections indicate the town and surrounding region will continue to grow. In addition to absolute population growth, recreational demands will undoubtedly increase with more people having more leisure time in the future. Anticipated increase in leisure time is due to many factors including decrease in the average work week, increase in length of paid vacation and number of people receiving paid vacations, changes in population life cycles and styles, and technological developments which have released people from time consuming tasks.

In 1975 the Housatonic Valley Council of Elected Officials conducted a study of Open Space and Recreation for the region. This study indicates that the Town of Sherman currently owns 31 acres of recreational land. This study recommends that Sherman have between 100 and 300 acres of recreational land at population saturation. General recommendations of this study also state that "Open Space - Natural Resource Areas should be acquired or protected." This recommendation is supported in the Tri-State Regional Planning Agencies' most recent publication which states "developing (critical recreation lands) for private use is contrary to public recreation needs and a denial to the public of much natural heritage."

The Town of Sherman's current "Community Development Action Plan" recommends purchase of the Carlson Farm property for open space. This report, prepared by local residents, finds the Carlson Farm property an area of "outstanding quality. . . as beautiful and spectacular as anything in the state."

From a planning viewpoint, the allocation of this resource will be an irreversible commitment. The acquisition decision must be based not only on today's priorities but on the long term objective of maintaining the quality of the standard of living.

RECREATION DEVELOPMENT AND PLANNING

A comprehensive recreation and resource management plan for the entire area should be made prior to any actual development. The time constraints of the ERT prohibits the preparation of a complete recreation plan on such a sizeable and varied area. This report does, however, present an overview of the area's possibilities and should provide some guidance in planning the use of the property.

Final plans and projected costs of all proposed development should be reviewed by the Town so that priorities for the development of the area can be established. In this way a course of action will be taken that will hopefully best serve the needs and desires of the Town. Thus, wasted effort, false starts and conflicts of use can be avoided.

The plan should be reviewed again after several years of use of the property to reassess the priorities and demands of the Town.

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Appendix

SOILS LIMITATIONS CHART
Carlson Farm Property-Sherman, Connecticut

Limitations Ratings and Principal Limiting Factors For:

Natural Soil Group	Mapping Symbol	Slope %	Approx. Acres	% of Total Acres	On-site Sewage Disposal	Buildings with Basements	Streets and Parking	Camp Areas	Picnic Areas	Play-grounds	Paths and Trails
E-3A	02	0-3	4.33	1.8	3	3	3	3	3	3	3
A-1A	15	3-8	20.86	8.5	3	3	3	2	2	3	1
D-2	17D	15-35	2.17	.9	4	4	3	3	3	3	3
D-2	17MD	15-35	16.51	6.7	4	4	4	3	3	3	3
D-1	20C	3-15	13.91	5.7	3	3	3	3	2	3	2
D-1	20D	3-15	20.86	8.5	4	4	4	4	4	4	4
C-2A	25XC	0-3	3.47	1.4	3	2	3	2	2	2	2
B1B	32MD	15-35	4.34	1.8	3	3	3	1	1	2	1
C-1	32C	3-8	1.30	0.5	2	2	3	2	2	2	1
C-1A	42XD	0-3	7.82	3.2	3	3	3	2	2	3	2
A-2	45A	0-3	6.95	2.8	2	2	2	2	1	2	1
A-2	45B	3-8	3.04	1.2	2	2	2	2	1	2	1
A-1A	60B	3-8	3.47	1.4	1	1	2	2	2	3	1
A-1B	60C	8-15	5.65	2.2	1	2	2	2	2	3	1
A-1D	65A	0-3	2.17	.9	1	1	1	1	1	1	1
A-1E	65C	8-15	10.43	4.2	2	2	3	1	1	1	1
A-1D	69A	3-8	4.34	1.7	1	1	1	1	1	1	1
A-1D	69B	3-8	25.65	10.4	1	1	2	1	1	2	1
A-1D	70B	3-8	8.69	3.5	1	1	2	1	1	2	1
A-1E	70C	8-15	18.26	7.4	2	2	3	2	2	3	1
B-3B	455	-U-	11.73	4.7	2	2	2	3	3	3	3
A-3A	461	-U-	7.39	3.0	U	U	U	U	U	U	U
E-2	816	0-3	3.91	1.5	U	U	U	2	1	2	1
	G.P.		38.69	15.7	U	U	U	U	U	U	U

* Limitations: 1 - slight; 2 - moderate; 3 - severe; 4 - very severe.

SOIL DESCRIPTIONS

CARLSON PROPERTY

SHERMAN, CT.

02 Limerick silt loam. This is a somewhat poorly to poorly drained soil on flood plains. It has very dark-brown friable silt loam surface layer underlain by dark-brown to grayish-brown mottled silt loam or very fine sandy loam. At depths of about 36 inches the material is generally coarser textured. Flooding occurs late in fall and early in spring. Some areas of this soil are flooded more frequently than the moderately-well drained Winooski soils because of slightly lower position.

15 Hinckley and Windsor soils, 15 to 35 percent slopes. This unit consists of soils that are of sandy or of sandy and gravelly materials on slopes greater than 15 percent. It occurs on steep terrace breaks, kames and eskers. The slopes are generally short and range from about 100 to several hundred feet in width.

17D Hollis-Charlton rocky complex, 15 to 35 percent slopes. This mapping unit is composed of moderately steep and steep soils. It consists of about 35 percent Hollis fine sandy loam, 30 percent of an unnamed soil that is 20 to 40 inches deep over bedrock and about 15 percent of Charlton fine sandy loam. The remainder of this mapping unit consists of inclusions of Paxton and other soils. The soils in this unit occur in such an intricate and complex pattern that it is not practical to separate them on the scale of map used. In some places there are narrow drainageways with poorly drained soils. Bedrock outcrops are few to numerous and stoniness ranges from few stones to extremely stony.

The Hollis soil is somewhat excessively drained, friable to very friable fine sandy loam less than 20 inches deep to bedrock. The well drained, unnamed soil is fine sandy loam. The well drained Charlton soil developed in glacial till. Surface soil and subsoil texture to a depth of 20 to 30 inches is fine sandy loam. The underlying material is sandy loam or fine sandy loam with numerous rock fragments. All of these soils are moderately permeable, but drainage is restricted by the underlying bedrock.

17MD Hollis extremely rocky fine sandy loam, 15 to 35 percent slopes. This moderately steep and steep soil is less than 20 inches deep over bedrock. It is somewhat excessively drained. Bedrock outcrops are numerous and surface stones and boulders are present in most places. This soil is very friable or friable fine sandy loam and is moderately permeable above the bedrock.

20C Farmington rocky silt loam, 3 to 15 percent slopes. This shallow soil is less than 20 inches to the underlying bedrock which consists of limestone or interbedded limestone and schist. It is well to somewhat excessively drained and the permeability above the bedrock is moderate. The gently sloping and sloping topography is mostly irregular. A typical profile consists of very dark grayish-brown silt loam surface soil over brown silt loam subsoil. Commonly the lower horizon is neutral in reaction. In some areas weathered fragments of limestone occur in the lower subsoil.

SOIL DESCRIPTIONS
CARLSON PROPERTY

20D Farmington rocky silt loam, 15 to 35 percent slopes. This soil is moderately steep and steep, otherwise it is similar to Farmington rocky silt loam, 3 to 15 percent slopes.

25XC Amenia stony silt loam, 3 to 15 percent slopes. Except for differences in slopes, this soil is similar to Amenia stony silt loam, 3 to 8 percent slopes.

32C Charlton fine sandy loam, 8 to 15 percent slopes. This well drained upland soil developed in very friable to firm glacial till. Surface soil and subsoil texture is fine sandy loam with some small, angular rock fragments to a depth of 20 to 30 inches. The underlying material is sandy loam or fine sandy loam with many stones and gravel size rock fragments in places. This soil is moderately permeable, but slowly permeable layers may be present below 36 inches. Charlton soils are members of a drainage sequence that includes the moderately well-drained Sutton and poorly drained Leicester soils. The surface stones have been removed from this soil.

32MD Charlton very stony fine sandy loam, 15 to 35 percent slopes. This moderately steep to steep, well drained, upland soil developed in very friable to firm glacial till. This very stony soil has more than 3 percent of the surface covered with stones and boulders. Surface soil and subsoil texture to a depth of 20 to 30 inches is fine sandy loam with some small, angular rock fragments. The underlying material is sandy loam or fine sandy loam with many gravel size rock fragments and stones in places. This soil is moderately permeable, but some slowly permeable layers may be present below 36 inches. Charlton soils are members of a drainage sequence that includes the moderately well-drained Sutton and the poorly drained Leicester soils.

42XD Stockbridge loam, 15 to 25 percent slopes. Except for differences in slopes, this soil is similar to Stockbridge loam, 8 to 15 percent slopes.

45A Tisbury silt loam, 0 to 3 percent slopes. This moderately well drained soil developed in 18 to 30 inches of silt loam material over stratified sand and gravel. It is in low-lying areas of terraces in valleys and along larger drainageways. The surface soil and subsoil layers are friable or very friable silt loam or very fine sandy loam. The underlying stratified gravelly sand is commonly more than 35 percent gravel. The lower subsoil is mottled indicating a waterlogged condition at times. A fluctuating watertable is often 15 to 20 inches below the soil surface during winter and other wet periods. The surface soil and subsoil have moderate permeability and the underlying gravelly sand has rapid to very rapid permeability. Tisbury is associated with the well-drained Enfield soils.

45B Tisbury silt loam, 3 to 8 percent slopes. Except for the differences in slopes, this soil is similar to Tisbury silt loam, 0 to 3 percent slopes.

SOIL DESCRIPTIONS
CARLSON PROPERTY

455 Sudbury sandy loam, 0 to 3 percent slopes. This is a moderately well drained soil. Mottles at 14 to 20 inches in depth indicate water logging in wet seasons. This soil has a very friable fine sandy loam or sandy loam surface and upper subsoil layers over stratified sand and gravel at 18 to 30 inches in depth. Permeability is moderate to rapid in the solum and very rapid in the substratum. Soils in the same drainage sequence with Sudbury are somewhat excessively drained Merrimac and poorly drained Walpole.

461 Raypol silt loam, sandy subsoil variant. This nearly level, somewhat poorly to poorly drained soil developed in 20 to 40 inches of silts and very fine sands underlaid by stratified sands and gravel. It has a dark-colored surface soil over a mottled subsoil. The water table is near the surface from late fall to early spring, but may drop to 6 to 8 feet during summer and early fall. This friable soil has moderate to moderately slow permeability. Raypol occupies low-lying nearly level areas of terraces and broad drainageways. The soil surface is typically free of stones, but in some areas, surface stones may be present in small quantities.

60B Hinckly gravelly sandy loam, 3 to 8 percent slopes. This is an excessively drained soil developed in stratified sand and gravel with numerous cobbles. The surface soil and subsoil texture is gravelly sandy loam, usually less than 18 inches thick. Permeability is rapid to very rapid. This soil is gently sloping to undulating and is frequently very irregular and pitted.

60 C Hinckley gravelly loamy sand, 8 to 15 percent slopes. This excessively drained soil developed in stratified sand and gravel with numerous cobbles. The surface soil and subsoil texture is gravelly loamy sand, usually less than 18 inches thick. Permeability is rapid to very rapid. This soil is gently sloping to undulating and is frequently irregular and pitted.

65A Enfield silt loam, 0 to 3 percent slopes. This well drained nearly level soil developed in a silt loam mantle 18 to 30 inches thick over stratified sand and gravel. The moderately permeable surface soil and subsoil layers are friable to very friable silt loam. The rapidly to very rapidly permeable underlying layers of sand and gravel contain numerous cobbles. Enfield soils are associated in a drainage sequence with the moderately well drained Tisbury soils.

65C Enfield silt loam, 8 to 15 percent slopes. This well drained sloping soil developed in a silt loam mantle 18 to 30 inches thick over stratified sand and gravel. The moderately permeable surface soil and subsoil layers are friable to very friable silt loam. The rapidly to very rapidly permeable underlying layer of sand and gravel contains numerous cobbles. Enfield soils are associated in drainage sequence with the moderately well drained Tisbury soils.

SOIL DESCRIPTIONS
CARLSON PROPERTY

69A Agawam fine sandy loam, 0 to 3 percent slopes. This is a well to somewhat excessively drained soil on terraces developed in deep sands. Textures in the surface and upper subsoil range from fine sandy loam to sandy loam grading into loamy sand or sand at 18 to 30 inches in depth. In cultivated areas the surface layer is dark-brown and the subsoil is yellowish-brown fading to pale-brown in the lower subsoil and substratum. Permeability of Agawam soils is moderate to rapid. Agawam and Merrimac soils are somewhat similar except Agawam has a sandy substratum. Moderately well drained Ninigret soils.

69B Agawam fine sandy loam, 3 to 8 percent slopes. Except for differences in slopes, this unit is similar to Agawam fine sandy loam, 0 to 3 percent slopes.

70B Merrimac sandy loam, 3 to 8 percent slopes. This is somewhat excessively drained gently sloping soil. Surface and upper subsoil textures range from fine sandy loam to sandy loam. The lower subsoil is sandy loam or coarser and is underlain by sand and gravel at 18 to 30 inches. The surface and subsoil layers are very friable and are moderately to rapidly permeable. Permeability in the substrata is very rapid. This soil is generally free of stones, but most areas have some gravel in the surface soil and subsoil. Merrimac and Enfield soils are closely associated. Enfield differs from Merrimac in being finer textured.

70C Merrimac sandy loam, 8 to 15 percent slopes. Except for the difference in slopes, this unit is similar to Merrimac sandy loam, 3 to 8 percent slopes.

816 Podunk fine sandy loam. This is a moderately well drained soil on floodplains from moderately coarse textured sediments. The surface layer is generally very dark gray or very dark grayish-brown fine sandy loam or sandy loam and the underlying layer is a mixture of dark-brown and dark yellowish-brown sandy loam. Mottling occurs below a depth of 16 to 24 inches. The texture is generally loamy sand or loose sand and gravel below 30 inches. In the same drainage sequence with Podunk are well-drained Ondawa and poorly drained Rumney. All these soils are subject to flooding from stream overflow.

- ✓ Rock outcrop
- G.P. Gravel Pit
- Ⓜ Pond
- ∕! Wet spot
- ☼ Stoniness

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.