

environmental review team report



RC & D

**EASTERN CONNECTICUT
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT**

*ASSISTED BY: U.S. DEPARTMENT OF AGRICULTURE,
SOIL CONSERVATION SERVICE AND COOPERATING AGENCIES*

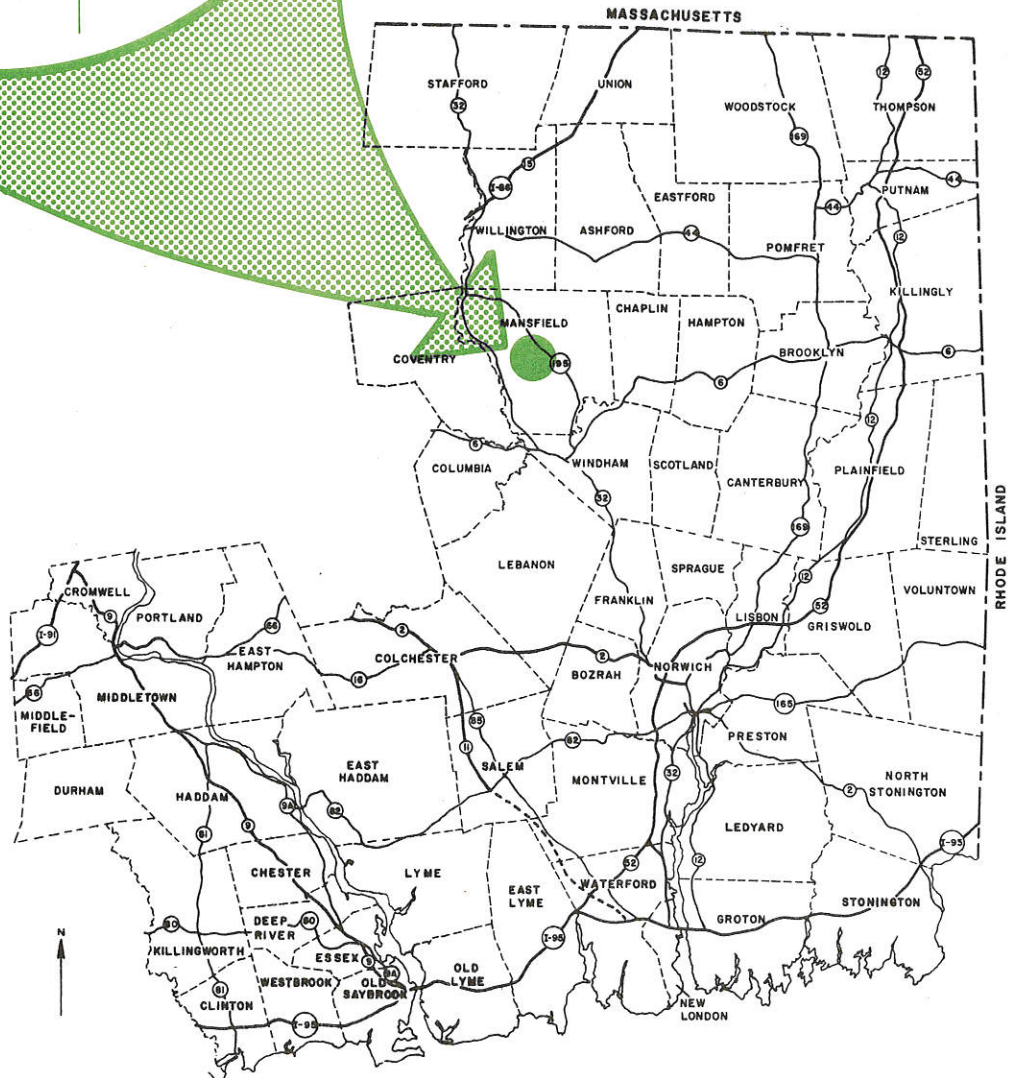
ENVIRONMENTAL REVIEW TEAM REPORT
ON THE
SCHOOLHOUSE BROOK PARK AND BARROWS PROPERTY
MANSFIELD, CONNECTICUT
JULY, 1975

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EASTERN CONNECTICUT RESOURCE CONSERVATION
AND DEVELOPMENT PROJECT
Environmental Review Team
139 Boswell Avenue
Norwich, Connecticut 06360

LOCATION OF STUDY SITE

SCHOOLHOUSE BROOK PARK AND
BARROWS PROPERTY
MANSFIELD, CONNECTICUT



EASTERN CONNECTICUT
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT



ENVIRONMENTAL REVIEW TEAM REPORT
ON THE
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MANSFIELD, CONNECTICUT

This report is an outgrowth of a request from the Mansfield Conservation Commission to the Tolland County Soil and Water Conservation District (S&WCD). The S&WCD referred this request to the Eastern Connecticut Resource Conservation and Development (RC&D) Executive Council for their consideration and approval as a project measure. The request has been approved and the measure reviewed by the Environmental Review Team.

The soils of the site were mapped by a soil scientist of the USDA Soil Conservation Service. Reproductions of the soil survey and a table of limitations for urban development were forwarded to all members of the Team prior to their review of the site.

The Team that reviewed the proposed development consisted of the following personnel: Albion Weeks, District Conservationist, Soil Conservation Service (SCS); Dean Rector, Soil Scientist, SCS; Timothy Dodge, Biologist, SCS; Dan Meade, Geologist/Hydrologist, Natural Resource Center, State of Connecticut Department of Environmental Protection (DEP); Huber Hurlock, Forester, DEP; Charles Phillips, Fisheries Biologist, DEP; Peter Houle, Recreation, DEP; Daniel Civco, Landscape Architect, Connecticut Cooperative Extension Service; Lester Barber, Planner, Windham Regional Planning Agency; Barbara A. Hermann, Team Coordinator, Eastern Connecticut RC&D Project.

The Team met and reviewed the site on May 8, 1975. Reports from each Team member were sent to the Team Coordinator for review and summarization.

This report is not meant to compete with private consultants by supplying site designs or detailed solutions to development problems. This report identifies the existing resource base and evaluates its significance to the proposed uses and offers suggestions for its development.

The Eastern Connecticut RC&D Council hopes you will find this report of value and assistance in making your decisions on this particular site.

If you require any additional information, please contact: Miss Barbara A. Hermann (889-2324), Environmental Review Team Coordinator, Eastern Connecticut RC&D Project, 139 Boswell Avenue, Norwich, Connecticut 06360.

INTRODUCTION

Schoolhouse Brook Park and the Barrows Property are owned by the Town of Mansfield as open space and recreation areas. Generally speaking, the park is intended for more intensive use and either has or will have facilities for swimming, fishing, picnicking, hiking, and nature study. There is also an interest in having outdoor classrooms and a camping area. The Barrows property is presently undeveloped and is intended for less intensive use. Preservation of its natural qualities is desired. The one specific use of the property expressed was a CDC program for which a primitive camp area would be required.

The Environmental Review Team was requested to study both parcels of land and to identify the opportunities that exist for recreational and educational use of the site. There are numerous possibilities for an area of this size, including such items as forestry, wildlife, recreation, and education. Individual team members have reviewed the site with respect to their specific disciplines and made recommendations as to the type of development or management that would be beneficial to the site and meet the objectives of the Conservation Commission. In developing an overall plan for the area, however, all of these aspects will need to be considered together, along with the needs and desires of the Town. In many cases, recommendations will be compatible and one management technique will serve several purposes. In other cases, compromises between various objectives may be necessary.

The Team's recommendation would be for the Conservation Commission to develop a conservation plan for the property, incorporating the needs and desires of the Town. This could be prepared with assistance from the Soil and Water Conservation District. It would incorporate not only the overall objectives of the properties, but also the specific steps and timetables necessary to achieve those ends. Once such a plan is prepared, school groups, CDC classes, community organizations, and other groups may be able to assist the Commission in carrying it out.

Hopefully, this report will be of assistance to Mansfield in determining the ultimate development and use of Schoolhouse Brook Park and the Barrows property. Comments or recommendations made within the report are presented for consideration by the Town in the preparation of their plans, and should not be construed as mandatory or regulatory in nature.

EVALUATION

TOPOGRAPHY AND GEOLOGY

The property is situated in the eastern upland section of Connecticut, approximately midway between Storrs and Willimantic. The site is typical of glaciated southern New England, with a thin layer of sediments forming a mantle over the consolidated bedrock. The topography on the site varies considerably, thus offering a variety of vegetation and wildlife habitats. The map on the opposite page shows the combination of hills, streams, and swampy areas.

The bedrock geology of the Spring Hill Quadrangle has not been studied in great detail. However, surface exposure is common enough to classify the bedrock as the Hebron Formation. This is a series of metamorphic rocks composed mainly of schists, gneisses, and amphibolites with minor amounts of other rocks interlayered. The characteristics of each of these various units is distinct enough and differ from one another to a degree that generalizations of the formation properties would be rather vague and invalid.

The bedrock outcrops on the site are not abundant and are generally weathered and covered with mosses and lichens. Though they are not examples of some of the spectacular geology that can be seen in Connecticut, they do exhibit many properties that are considered important to a geologist in a mapping project. For educational purposes, however, field trips to the nearby Fenton River will show much more from existing excavations, outcrops, and topography.

The surficial geology was mapped in the 1960's by Perry Rahn (see Connecticut Geological and Natural History Survey Bulletin QR 26) and shows three major types of unconsolidated deposits on the site: stratified drift, till, and swamp deposits. Till covers the largest portion of the site, generally at the higher elevations along valley walls and hill and ridge tops. This material is the predominant type of surficial material in Connecticut. It is the mass of material which remained after the glacial ice melted. More specifically, till is defined as a heterogeneous material composed of varying mixtures of boulders, gravel, sand, silt, and clay particles, none of which are significantly sorted or stratified according to grain size, as it is with waterlain deposits.

Stratified drifts sands and gravels were also deposited during the glacial period, but unlike till, were carried by water. The swamp deposits are accumulations of both inorganic and organic materials and their origin is usually associated with the period of time since the retreat of glacial ice.

The distribution of the surficial deposits, along with detailed descriptions of each, can be found in the bulletin mentioned above.

SOILS

A detailed soils map of the site is given in the Appendix to this report. Due to the original scale at which the soils are mapped (1"=1,320') the lines shown on the soils map should not be viewed as precise boundaries, but rather as guidelines to the distribution of soil types on the property. The soils map, along with the report, Soil Survey, Tolland County, Connecticut (USDA, Soil Conservation Service, 1966), can serve as an educational tool regarding the identification and interpretation of soils. The natural soil group is also given for each soil. A booklet,

TOPOGRAPHY



Know Your Land, Natural Soil Groups for Connecticut, published by the Soil Conservation Service and Connecticut Cooperative Extension Service, provides a clear explanation of the natural soil groups.

In examining the soils map and adjoining chart, a correlation between the soils and the surficial geology can be seen. All soils in Natural Soil Group A are underlain by water-deposited beds of sand and gravel (stratified drift). Groups B, C, and D are all upland soils that were formed in areas of till. Group B is generally found in the thicker deposits of till occurring on hillsides. Group C occurs mostly on the tops and slopes of drumlins and has a hardpan at 16 to 36 inches below the surface. Group D is found mostly on steep side slopes and narrow ridge tops and is characterized by rockiness and shallow depths to bedrock. Natural soil group F relates closely to the swamp deposits, and consists of deep peat and muck soils with a high water table.

WATER RESOURCES

Schoolhouse Brook, a tributary of the Fenton River, is the primary water resource on the site. The stream flows in a southeasterly direction from the northern park boundary to the southern boundary, dividing the property into eastern and western portions. A six acre man-made impoundment intended for recreation use has been constructed in the northern portion of the park on Schoolhouse Brook proper. The Barrows property contains a small (\pm .5 acres) shallow water pond, which is fed by a perennial stream originating off-site. This stream joins Schoolhouse Brook below the pond near the Clover Mill Road crossing. In addition, an approximate three acre shrub type swamp (wetland) is located on Schoolhouse Brook in the southernmost portion of the property.

Water quality in Schoolhouse Brook and the six acre impoundment is very good.^{1/} Schoolhouse Brook is considered to have Class A quality water, as defined by the State of Connecticut.^{2/} It is a small upland stream characterized by a rocky bottom containing numerous pools and riffle areas with a perennial flow of cold water. Native brook trout populations exist in the stream with the average size fish approximately six to seven inches. In addition, various species of minnows are also present. This is primarily an aesthetic fishery resource rather than a sport fishery, in that the stream could not support more than light fishing pressure. Limiting natural factors such as food supply and available living space are reducing the growth rate of these fish.

Both ponds appear suitable for put-and-take fishing and it is possible that the upper pond could support a few trout year round. The most questionable time period would be during the summer months. The drainage area above the site is about 0.8 square miles and the underlying materials are almost totally till. The size of the drainage area, the rapid surface runoff associated with till, and the high amounts of transpiration and evaporation occurring during summer months may lead to conditions of little or possibly no flow through the pond. The fisheries biologist of DEP, as requested by Mansfield, will be monitoring water temperature, dissolved oxygen, and ph in July to determine what restrictions might exist for year round trout fishing.

^{1/} Schoolhouse Brook - Biological Investigations for USDA, Soil Conservation Service by students at Eastern Connecticut State College, 1973-1974.

^{2/} Water Quality Standards - Water Resources, Dept. of Environmental Protection, State Office Building, Hartford, Connecticut: 1971.

The wetland area on the southern portion of the site is a shrub type swamp with a relatively pure stand of silky dogwood. Red maple, native grasses and other wetland plants are present. This type of swamp is used to a limited extent for nesting and feeding of black ducks.

FORESTRY

Though the site is not planned as a commercial forest, there are forestry management practices which would improve the overall health of the wooded areas of the site. Some of the benefits to be gained include maintaining and/or creating a greater diversity of species, increasing the resistance of trees to disease and windthrows, improving the aesthetics, increasing wildlife habitat, and reducing hazards. Forests are not static systems and may require management to maintain or establish those aspects which are desired by the town.

The following recommendations were made by the forester. In the Appendix is a map which shows the location of the various stands and a chart providing a more detailed description of each stand and the type of management from which it would benefit. This is provided so that the town will be aware of the full range of possibilities. It is not expected that the town will necessarily want to carry out all of the suggestions. However, if the town decides to carry out some of the suggestions, the DEP forestry personnel would be available to assist in more specific planning. They are also available to advise on aspects of forest management, such as making picnic table, benches, and shelters from the lumber on the site.

Schoolhouse Brook Park. On the park property there are 37 acres of wetland. Red maple will dominate these areas over the next 100 years. There is no potential or particular need for forest management in the wetland areas.

The majority of the park, 87 acres, consists of mixed hardwood stands ranging from pole to sawtimber size (stands 1, 2, 3, 6). Cull trees, trees of no commercial potential due to defect, are abnormally plentiful on 58 acres (stands 2 and 6). There are enough other trees of sawtimber size in these stands that are declining in vigor to warrant an intermediate harvest. Three sales at 5 year intervals, each covering an area of 20 acres, are suggested. Each sale could result in \$800 revenue if slash is left lopped at six feet high. Instead of revenue, slash could be lopped to three feet and chipped or removed on parts of the area. Following such a harvest the remaining trees would leave the stands fully stocked with larger, high vigor, more hazard free trees of the species desired.

The 11 acres of softwood (stands 3A and 5) need thinning for rapid growth. This would have to be done at a cost to the town. A rate of 2 acres per year is suggested.

The mixed softwood and hardwood stand (stand 7) is becoming all hardwood. The softwood (evergreens) could serve as an effective buffer for the adjoining properties if the saplings are released. This can be accomplished by thinning the hardwoods.

The area of old fields and hedge rows (stand 4) will eventually resemble the Juniper Trail area if left alone. Several possibilities exist for the use of this

area. A mowing lot for recreation with scattered shade trees could be developed, while harvesting some cordwood. As an alternative, underplanting hemlock would result in a forest that serves both man and wildlife. A fire pond is also a possibility in this area and might also be used for winter skating.

Barrows Property. Recreational use will increase the fire risk on this site. Old chestnut stumps, which are fairly plentiful, could lead to underground fires. Therefore, fire fighting access should be developed.

Stand 10 would benefit from the removal of dead and dying oak timber. It is suggested that half the area be salvaged in 2 years and the remainder in 10. Some of the oak should be left to rot in order to minimize the evidence of these activities in the area.

The pine is slowly being crowded out by oak on stand 11. However, no oak regeneration is present, so the area could be converted entirely to hemlock and pine, if desired. In order to minimize the evidence of the activity, a two-stage removal of hardwoods on half the stand at a time is suggested. A 20 year interval between harvests is recommended to help maintain a natural appearance in the area.

The area lying between the two halves of the Barrows property appears to be primarily pine, of sawtimber size, in need of an intermediate harvest now. Due to its location it would be a logical purchase for the Town if it were to become available at some future date.

WILDLIFE

Both parcels of land basically provide woodland wildlife habitat to a variety of birds and mammals. Typical inhabitants of wooded areas include songbirds, ruffed grouse, woodpeckers, owls, and occasionally woodcock, as well as fox, raccoon, cottontail rabbit, whitetail deer, gray squirrel in hardwoods, and red squirrel in conifers.

The management condition of the wildlife habitat is low. There is a lack of good quality browse material. The tree overstory is largely mature with a closed canopy. Consequently many desirable understory plants have been shaded out. The eastern portion of Schoolhouse Brook Park is approximately 50 percent conifers and numerous overgrown old fields, which do add some diversity to the habitat. Wildlife populations on the properties are generally low and animals are forced to use a larger area in order to meet their daily and seasonal needs. However, opportunities exist for wildlife management on the property without it becoming a project of major proportions and costs.

Planting diversity can be increased by tree thinnings, release cuttings, and discing the edges of old field areas to encourage new growth of weedy types. In fact, where there is access, such as the old fields near the shallow pond on the Barrows property, annual grain and perennial grass crops could be established. Some of these activities would benefit both forest and wildlife management.

The small pond on the Barrows property has good potential for wildlife. Planting Japanese millet around the pond edge and putting up a wood duck box or two would enhance waterfowl values. To encourage wildlife in the pond area, a cut-back border should be developed. The border should be 50 to 100 feet wide. Woody vegetation should be removed by cutting or girdling, with stumps to be treated with a brush

killer at the time of cutting. Native shrubs already present, such as spice bush, blueberry, pepper bush, and silky dogwood, should be encouraged. Areas containing an inadequate stocking of fruiting shrubs should be planted on a six by six foot spacing with such shrubs as autumn olive, tatarian honeysuckle, silky dogwood, high-bush blueberry, and amur honeysuckle. At planting, each shrub should be fertilized with a small handful of 10-10-10 fertilizer.

Around the pond, conifers should be planted to form a cover for wildlife. Five or six clumps of conifers, with about 30 trees to a clump, is suggested (six by six foot spacing). White spruce, Norway spruce, and Douglas fir can be used on dry sites, while using white pine or hemlock on wetter sites. In addition to the clumps, 3 rows of hemlock planted along the edge of the woodland is recommended.

To encourage wildlife in the wetland area along the stream in the southeast corner of the site, there are several possibilities:

- (1) Dig a series of herringbone ditches about 20 feet wide, with 10 feet of the width between 3 and 5 feet deep and the remaining portion about one foot deep.
- (2) Dig several potholes, 3 to 5 feet deep, 60 feet wide and 120 feet long. Spoil from either the ditches or potholes should be seeded (25 lbs. reed's canary per acre; fertilize 600 lbs. of 10-10-10 per acre).

The semi-open fields in the southeast part of the property will soon revert to woodland from open land if not managed. This would offer an educational opportunity to study the transition from field to forest. However, by maintaining the semi-open nature of the area, there will be greater wildlife value. For wildlife purposes poplar, oak, cherry, gray birch, and other undesirable wood vegetation should be cut. Trees and shrubs with wildlife value should be encouraged; species observed include elderberry, blueberry, silky dogwood, gray dogwood, sumac, apple, and red cedar. Clumps of fruiting shrubs such as those suggested for the cut-back border of the pond could also be planted here. Yearly planting of a half acre strip of Japanese millet and a half acre strip of buck wheat would encourage use of the area by seed eaters during the fall (plant in May after last heavy frost).

As stated before, the suggestions regarding wildlife will have to be considered in conjunction with the other aspects of the property's use and development. Many of these practices could be assisted by students or community organizations. In addition to providing for wildlife, they would serve to teach through doing and provide one or more demonstration plots.

AESTHETICS

The landscape composition of Schoolhouse Brook Park and the Barrows property is typical of that of much of the region. There are, however, several attributes that distinguish this area from others. First, it is centrally located to several educational facilities. Second, because the site is proximal to Route 195, a major transportation axis, the park becomes easily accessible to various interest groups. Also, the Nipmuck Trail bisects Schoolhouse Brook Park and continues adjacent to the Barrows property. Therefore, the visitor potential exists. In addition, there are many visual features that are offered to park users because of the existing trail network system. Some of these features include: exposure to various ecotypes, topographic transitions, flowering microflora, and historic artifacts (farm walls, dam, remnant stone foundations).

However, at various points within the park, these visual assets can be outweighed by visual deficits. Trail maintenance seems not to have been practiced to any significant degree, causing severe root and stone exposure in places. This becomes visually distracting in two ways: sufficient pedestrian traffic will eventually cause the adjacent trees to decay, and the trail user must be continually aware of his step, thus taking his eye away from the natural surroundings and focusing them upon the trail itself. It is recommended that present trails be upgraded and maintained or that they be rerouted entirely to avoid sensitive areas, yet still expose the user to those elements of interest.

Erosion along the trails is not as yet a serious problem. This is due partly to the fact that many of the trails are narrow, with a minimum of exposed area, and were originally laid out across the slopes. Evaluation of the soils for paths and trails indicates the following limitations. Most of the area would have moderate limitations because of the stoniness present. Walpole and the Leicester, Ridgebury, Whitman series would have severe limitations due to wetness. A few extremely stony areas and areas with slopes over 15 percent would also have severe limitations. Peat and muck and the wet Scarborough soils would have very severe limitations, as would the extremely rocky and steep Rockland and Hollis soils.

As trail systems are more intensively used, means of erosion control will be needed. Natural drainage ways or waterways may need stone riprap. Badly worn trails may need logs to hold crushed stone or woodchip paths. Sloping trails may need asphalt paving. Sunny areas near parking lots and bank areas can be fertilized and limed to strengthen the present vegetation cover. Bare and worn areas should be seeded with a mixture containing a large amount of tall fescue. [Suggested mixture: 65% (KY.31) tall fescue, 30% creeping red fescue, and 5% red top. Seed at a rate of 2 lbs. per 1,000 square feet. Adjust rates to seed bed conditions and time of year. Lime and fertilize as results of soil test or apply 2 tons of lime and 1,000 lbs. of 10-10-10 per acre.]

The Juniper trail area has several noteworthy features from an aesthetic viewpoint, such as its abundant vegetative growth and its initially winding character. A "green corridor" effect is encountered further on the trail because of the density of the pines, spruces, junipers, and cedars. Since the trail is sufficiently broad, it is suggested that indigenous flowering species of medium height at maturity be planted to introduce some textural and color variation. Species should be selected on the basis of hardiness, times of flowering, physical requirements, visual compatibility, and so forth.

Forest management areas can be a viable teaching instrument, and as indicated previously, of benefit to the forests. However, it must be kept in mind that this is a recreational area and that forestry practices are usually incompatible with optimizing the aesthetics of a recreational experience. Therefore, some compromise between ideal forestry practices and visual aesthetics may be desired. An aesthetically superior tree stand has been described as a matrix of uneven-aged, well-formed healthy trees of mixed species, interspersed with an occasional small opening, an occasional pure, even-aged stand of up to an acre or two in size, an occasional deformed tree (picturesque), and an occasional dead tree (wildlife enhancement) (Cook, 1972). These characteristics should be considered when balancing the optimal solutions to both forestry techniques and landscape appeal.

LAND USE

Through guided trails and other interpretive devices and compatible land management techniques, the varied land use history and present land use character of the park could be illustrated and explained. The changing patterns of land use over three centuries could be interpreted using a knowledge of the natural resource factors existing on the site and the economic, social, and political factors which prevailed over the several centuries.

Several areas of particular interest exist within the site. At least two remnant ancient dams and the new swimming pond dam take advantage of the streams in the park. Interpretation of the "why" of their location in terms of topography, geology, use, and economic requirements of the times could make experiencing the streams more complete. The past and future effect of the dams on the streams could certainly be part of the interpretation.

In the Juniper and Tamarack trail area, the extensive presence of stone walls and the unique character of the transitional vegetation in the area suggest an agricultural use of the land here much different than is visible elsewhere in the park. Management of this area might maintain the visible distinction of this area from the rest of the park. Interpretation might explain the underlying reasons for the present observable, and past, differences. Through botanical and other investigation, personal recollection, or archival historical investigation, the pattern of open land/woodland over the entire site might be reconstructed and mapped. Relationships to the neighboring village of Mansfield Center could be demonstrated.

The habitational remnants (foundations and abandoned fields) on Clover Mill Road adjacent to the parking lot and across the road in the Barrows Estate should be protected and subject to identification and interpretation. Rather than let the remnant open land that supported the homestead revert to woodland, management techniques might be used to keep them open as a reminder of the former uses, perhaps in concert with a wildlife management scheme. The same can be said for the lower end of Schoolhouse Brook in the Barrows Estate.

RECREATIONAL DEVELOPMENT

Schoolhouse Brook Park. Since the primary objective of this park is an educational one, information signs should be used more liberally to identify various features. Signs can be used to label species of flora and fauna and provide historical land use information. The trail system could be developed so it does not require a handout, but provides basic factual information, forcing the hiker to draw his own conclusions to certain questions. More information can be provided on this type of trail system if desired. Trail signs should be of the nature of those already present, either western red cedar or heart redwood.

Outdoor classrooms, or group concentration areas, should be located at strategic locations, such as the entrance and points of visual, ecological, or geological significance. Precautionary measures should be taken to provide areas that will not deteriorate under stress. The use of ground mulches, woodchips, crushed stone, or other material is suggested.

The area east of the swimming pond currently has a very "parklike" appearance with large trees widely spaced and a minimum amount of brushy undergrowth. Given this area's proximity to the swimming area and pond, and given the panoramic view

of the pond area that it provides, the woodland here might be consciously managed to provide a natural "parklike" area for casual walking, and perhaps picnicking. Selected introduction of native flowering plants such as azaleas and dogwoods might be practiced with most other woody undergrowth eliminated and the herbaceous undergrowth encouraged.

The camp site which has been suggested for the park poses several problems. First, there is evidence that those areas adjacent to the brook are flood prone during peak storm runoff. Second, insects are likely to be a greater problem here due to the proximity to water. Third, there is the probability that careless users will pollute the brook. Fourth, even though it has the asset of being accessible by two trails, there is the possible complication of the hiker's intrusion on the camper's privacy, and conversely, the camper's interruption of the hiker's "wilderness experience." (Note: this last item is based on personal opinion and experience of team members.)

It is therefore recommended that the camping area be sited on upper terrain, away from any water resources, and located on a spur trail off one of the other trails, possibly near the crest of the Pine Ridge Trail. It is also recommended that camping activities be limited to no more than six in a party. If more than six use the area, it would seem that sanitary facilities would be a problem.

It appears that Schoolhouse Brook Park can satisfy all the requirements set forth by the town's objectives without exceeding its carrying capacity, provided proper management is exercised. Therefore, it is suggested that the more intensive activities be conducted on Schoolhouse Brook Park and the Barrows property be reserved for activities requiring an undeveloped area.

Barrows Property. Because of this area's present undisturbed condition, the site should remain basically unaltered so that the "semi-wilderness" aspect may be preserved. It is suggested that the objectives for this parcel be deleted or adjusted to retain the present state of environmental and visual quality.

Other than the pond area, a trail system should not be developed on this site. The uniformity of much of the woodland vegetation offers opportunities for orienteering work. This would offer a greater challenge if a trail system is not developed.

There are several well-drained knolls, fairly stone free, and the strip of land joining the two halves of the site that would be suitable for wilderness camping, such as that desired by the CDC program. One knoll area, covered with beech, is unique and should be protected. A stoned-up spring is located in the southern portion of the property and could serve as a source of water for the camp. In order to minimize the impact of a wilderness campsite, they should be rotated so that a site would not have to be used again for at least three years. A policy of leaving the site as it was found should be followed. Leaves and duff should be spread back over all areas as an erosion control measure.

SUMMARY AND ADDITIONAL COMMENTS

Based on the information provided and the site review, it would seem that most activities, especially organized activities, should take place on the Schoolhouse Brook Park property. Opportunities for the development and management of the resources are numerous. Areas discussed in this report include water resources, forestry, wildlife, aesthetics, land use (historical), trail maintenance, educational use, and picnic and camp areas.

The Barrows property offers the greatest opportunities for activities requiring an undeveloped area. Therefore, most suggestions regarding the Barrows property have dealt with wildlife and forest management techniques which would enhance the area without disrupting its "natural" qualities.

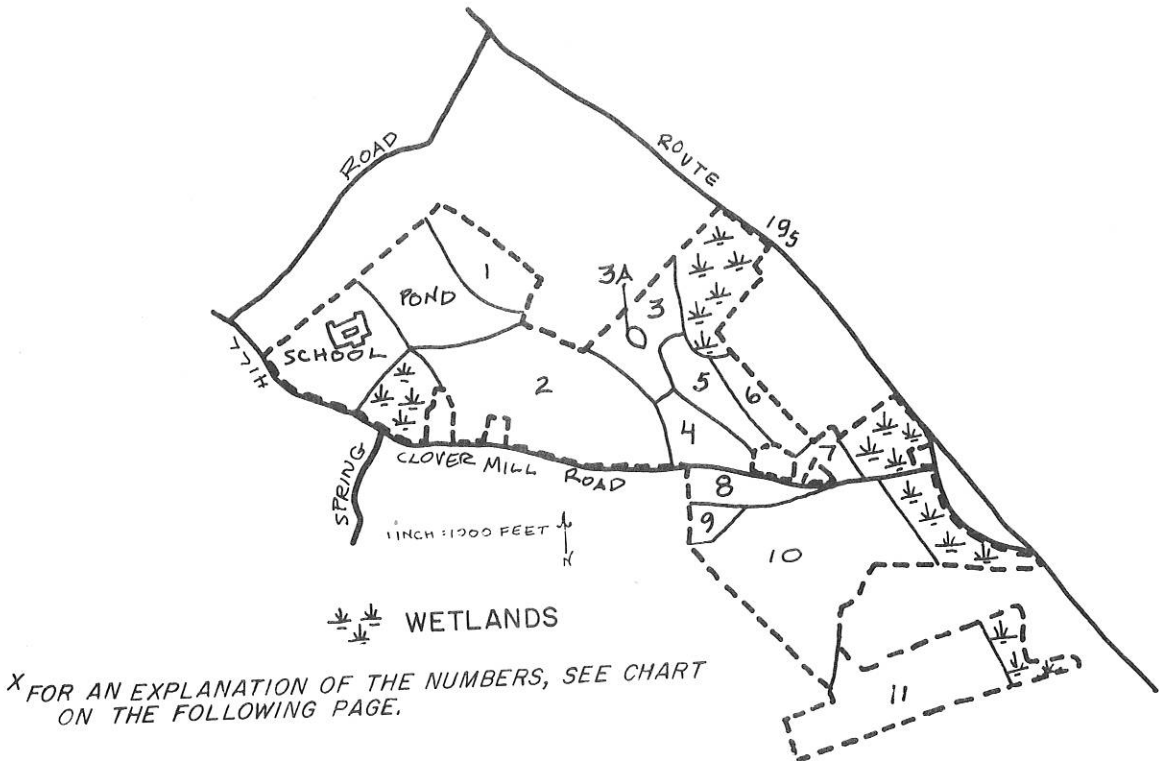
It appears that the most desirable course of action would be to develop a long-range conservation plan for the entire area incorporating wildlife, forestry, recreation, and other conservation practices to meet the goals of the Town. This could be developed with the assistance of the Soil and Water Conservation District, using the resources of the Soil Conservation Service (SCS) and the Department of Environmental Protection (DEP). The plan would show the area to be developed and/or improved and a tentative timetable to accomplish the activities. Prior to initiating this process it would be beneficial for the Conservation Commission to prepare more specific objectives for each of the parcels, which reflect the desires of the Town and the resources of the site. This will better enable the Commission to work with SCS and DEP in preparing a realistic and ultimately successful plan which could be, in part at least, carried out with the assistance of school and community organizations.

APPENDIX

SOIL SYMBOLS AND SERIES NAMES

<u>Natural Soil Group</u>	<u>Map Symbol</u>	<u>Soil Series Name</u>
A-1a	Eta	Enfield
A-1b	HmC JaC	Hinckley Jaffrey
A-2	SsA	Sudbury
A-3a	Wd	Walpole
A-3b	Sf	Scarboro
B-1a	ChB	Charlton
B-1b	ChC	Charlton
B-1c	CrC GeC	Charlton Gloucester & Charlton
B-1d	ChD	Charlton
B-1e	GeE	Gloucester & Charlton
B-2a	SvB SwA	Sutton Sutton
B-2b	SxB	Sutton
B-3b	Lg	Leicester-Ridgebury- Whitman
C-1a	PdB	Paxton
C-1b	PbC	Paxton
C-1c	PeC	Paxton
C-1d	PdD	Paxton
C-1e	PeD	Paxton
C-2b	WzC	Woodbridge
D-1	HrC	Hollis
D-2	HrE HxC HxE Rk	Hollis Hollis Hollis Rock land
F-1	Pk	Peat & Muck

FOREST SURVEY
SCHOOLHOUSE BROOK PARK AND BARROWS PROPERTY
MANSFIELD, CONNECTICUT



Prepared by: Huber R. Hurlock, Regional Forester
Connecticut Department of Environmental Protection, Region III
May, 1975

FOREST SURVEY BRIEF DESCRIPTION OF STANDS

SCHOOLHOUSE BROOK PROPERTY

School	25	acres	
Pond area	29	"	
Wetlands	37	"	
Stand 1	15	"	Mixed hardwood, sawtimber, overstocked, good growing site
" 2	50	"	Mixed hardwood, sawtimber, fullstocked, medium growing site
" 3	14	"	Mixed hardwood, uneven aged, good growing site
" 3A	1	"	Red pine, pole, overstocked, good growing site
" 4	10	"	Understocked field, poor growing site
" 5	10	"	Softwood patch planting, sapling, poor growing site
" 6	8	"	Mixed hardwood, sawtimber, fullstocked, good growing site
" 7	7	"	Softwood-hardwood, pole-sawtimber, overstocked, poor growing site

BARROWS PROPERTY

Wetlands	25	acres	
Stand 8	7		Old field, sapling-pole, understocked, poor growing site
" 9	4	"	Mixed hardwood, pole-sawtimber, overstocked, good growing site
" 10	64	"	Mixed hardwood, sawtimber, fullstocked, medium growing site
" 11	36	"	Softwood-hardwood, sawtimber, fullstocked, medium growing site

NOTE: Definition of timber sizes:

Sapling = 1-4" diameter; Pole = 5-10" diameter (suitable for cordwood);

Small sawtimber = 11-14" diameter (suitable for sawlogs);

Large sawtimber = 15" and over diameter (suitable for sawlogs).

DETAILED DESCRIPTION AND NEEDS OF STANDS

SCHOOLHOUSE BROOK PROPERTY

<u>Stand</u>	<u>Acres</u>	<u>Description and Needs</u>
1	15	This mixed hardwood stand on a good growing site has the best potential for a high vigor mixed species stand on the property within the next 10 years. It contains black oak, ash, yellow birch, sugar maple, red maple, and tulip poplar in sawlog sizes. Potential high vigor trees alone will provide full stocking. If access can be had across the pond dike or across private property an intermediate harvest removing poor vigor trees could be conducted. The profits of such a harvest should pay the cost of killing all cull trees, lopping tops, and removing cordwood size slash or provide money or lumber for picnic tables. If the stand is left as is, the yellow birch, red maple, and tulip poplar may disappear from the stand within our lifetimes.
2	50	This stand consists of mixed hardwoods including sawlog sizes of oak with hickory understory on a medium growing site. Most cull trees are used as den trees by wildlife. There has been recent camping by the brook. The area would benefit from an intermediate harvest of poor vigor sawtimber reducing the stand to a lower level of full stocking.
3	14	This was an old field area on a good growing site now becoming mixed hardwoods, including varying amounts of ash, oak, hickory, butternut, and poplar. These are all species that regenerate best in full sunlight. The stand should be left alone for now as the sawtimber trees are sparse and nearly all of high vigor. The brush will be shaded out over the next 20 years. At that time it will need thinning (intermediate harvest).
3A	1	The red pine are pole size and very overcrowded and will need 2 light thinnings 3 years apart to develop the fuller boles and crowns needed to survive. If thinned, this would make a nice respite from brush on a knoll in the middle of the park. As is, the stand is quite subject to total blow down if a storm of sufficient strength should occur.
4	10	There are presently mixed hardwoods (red and sugar maples) and an open field with wildlife shrubs (juniper, cedar, apple, and blueberry). The stand could be thinned out by fuelwood sales for shade trees on fields, or reinforced with white pine and hemlock evenly mixed 15' by 15' (200/acre).
5	10	This is an old field area patch planted to single species, including patches of spruce, fir, red pine, white pine, and larch. Juniper are being crowded out and patches should be thinned in 5 to 10 years to sustain growth. In 20 years when the juniper are shaded out and if half the planted trees are removed, this will be an aesthetically attractive coniferous stand. There is no foreseeable return from products sales here. The Christmas tree option has gone by. The soil is not suited to spruce or fir, but pine and larch will do well if thinned.

<u>Stand</u>	<u>Acres</u>	<u>Description and Needs</u>
6	8	Mixed hardwoods (mostly red oak) are present on this good growing site. There is only a hornbeam understory. One third of this sawlog size stand is cull and culls not being used as homes for birds, squirrel, or coon might be killed. If cordwood could be removed, oak should regenerate naturally in scarified soil with partial sunlight. If cordwood cannot be removed, hemlock should be underplanted at 200/acre (15' by 15') a year before culls are killed. Planting hemlock would result in an eventual even mix of hemlock and oak, and if no cuttings took place, eventually all hemlock over 100 years.
7	7	This 7 acre stand of oak and white pine borders 3 private owner-ships. To increase the pine which serves as a full year screen, hardwood should be thinned out, removing low vigor trees. Sapling pines must be released within 5 years to be able to respond to sun-light. The site is a good growing site and the forest is presently overstocked.

BARROWS PROPERTY

8	7	This is a poor growing site consisting mainly of fields, brush, and aspen. Two possibilities are clearing for recreation or underplanting of larch, hemlock, and white pine evenly mixed 500/acre (10' by 10').
9	4	This good growing site contains mixed hardwoods of sawlog size which are presently overstocked. However, because of slope and rocks, it is suggested it remain a natural area. Harvest may result in erosion. Oaks, maples, yellow birch and beech are found here now. Beech and sugar maple will eventually eliminate other species as only they can regenerate in heavy shade.
10	64	This medium growing site of mixed hardwoods (oaks and hickory) has some mortality of poles and timber and a lot of very low vigor saw-timber. There is no understory and few existing seedlings show heavy deer brouse. Stumps of chestnut cut about 1930 are plentiful. An overgrown access road traverses through the stand up the hill. There is just enough volume now for an intermediate timber harvest.
11	36	This stand consists of red oak with white pine on a medium growing site and would benefit from an intermediate harvest, but this could be put off without causing problems to larger trees. Any harvest would increase the percentage of white pine in the stand as no oak regeneration is present. Pine are at present being slowly crowded out.