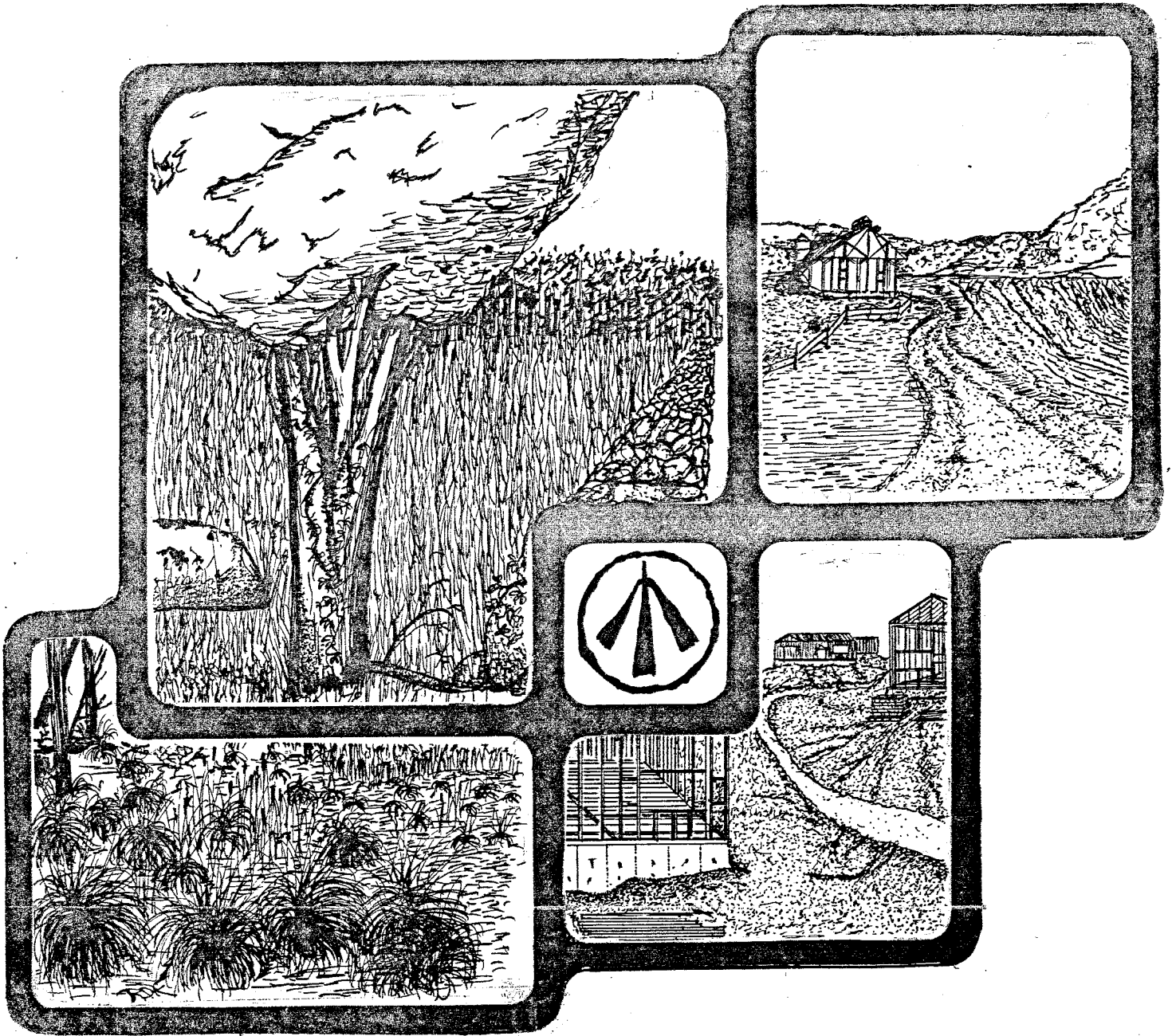


ENVIRONMENTAL REVIEW TEAM REPORT

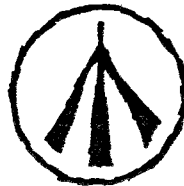


ORCHARD HILL PROPERTY NEWTOWN, CT

KING'S MARK
RESOURCE CONSERVATION & DEVELOPMENT AREA

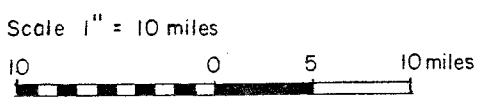
**KING'S MARK
ENVIRONMENTAL REVIEW TEAM REPORT**

**ORCHARD HILL PROPERTY
NEWTOWN, CT
JULY 1984**



**King's Mark Resource Conservation and Development Area
Environmental Review Team
Sackett Hill Road
Warren, Connecticut 06754**

LOCATION OF STUDY SITE



ENVIRONMENTAL REVIEW TEAM REPORT
ON
ORCHARD HILL PROPERTY
NEWTOWN, CT

I. INTRODUCTION

The preparation of this report on the "Orchard Hill Property" in Newtown was requested by the Newtown Parks and Recreation Commission.

The Orchard Hill Property is a town-owned open space parcel of land located in the southcentral portion of town (see Figure 1). The site is + 24 acres in size and consists of a diverse landscape of wooded land, old fields, and open fields. A very attractive gorge exists in the northcentral portion of the property where the north branch of the Pootatuck River flows through the site (see Figure 2). Direct access to the property is available from the east off Huntingtown Road and from the north off Orchard Hill Road. Access to the site is also available from the southwest off Monitor Hill Road via an adjacent 7 acre town owned open space parcel.

The Town of Newtown acquired the Orchard Hill Property in 1976 and assigned responsibility for managing the land to the Newtown Parks and Recreation Commission. The Parks and Recreation Commission is in the process of determining the future use of the site and requested this ERT study to assist them in their deliberations. The Commission is presently considering: 1) restricting future use to passive recreational use only, or 2) combining passive recreational use of the property with a limited amount of active recreational use. With regard to this second alternative, the Commission recognizes a need for additional ballfields in town and is interested in the suitability of the Orchard Hill Property for supporting this use. Additional activities being considered for the property include: soccer fields, nature trails, cross county ski trails, riding trails, and a basketball court. Of particular concern to the Commission is whether or not portions of the site can be developed for active recreational use without significantly degrading the natural aspects of the property (e.g., wildlife habitat, vegetation).

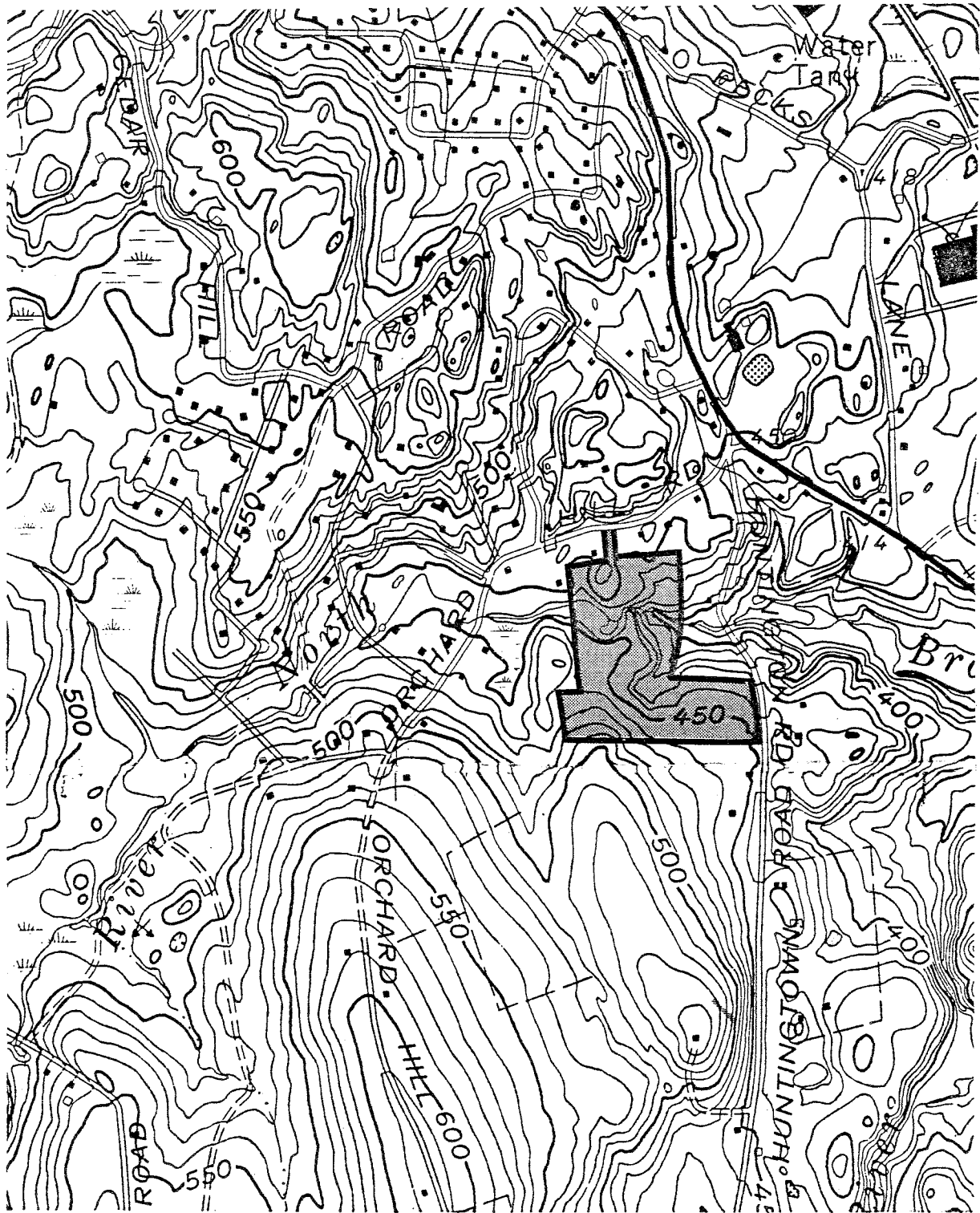
The ERT was asked to: 1) provide a natural resource inventory and evaluation of the property, 2) discuss the opportunities and limitations of the site for passive and active recreational land use, and 3) identify mitigating measures which could be employed to minimize any adverse impacts with expanded use of the site.

The King's Mark Executive Committee considered the Town's request, and approved the project for review by the team.

The ERT met on April 11, 1984 to field review the site. Team members participating on this review included:

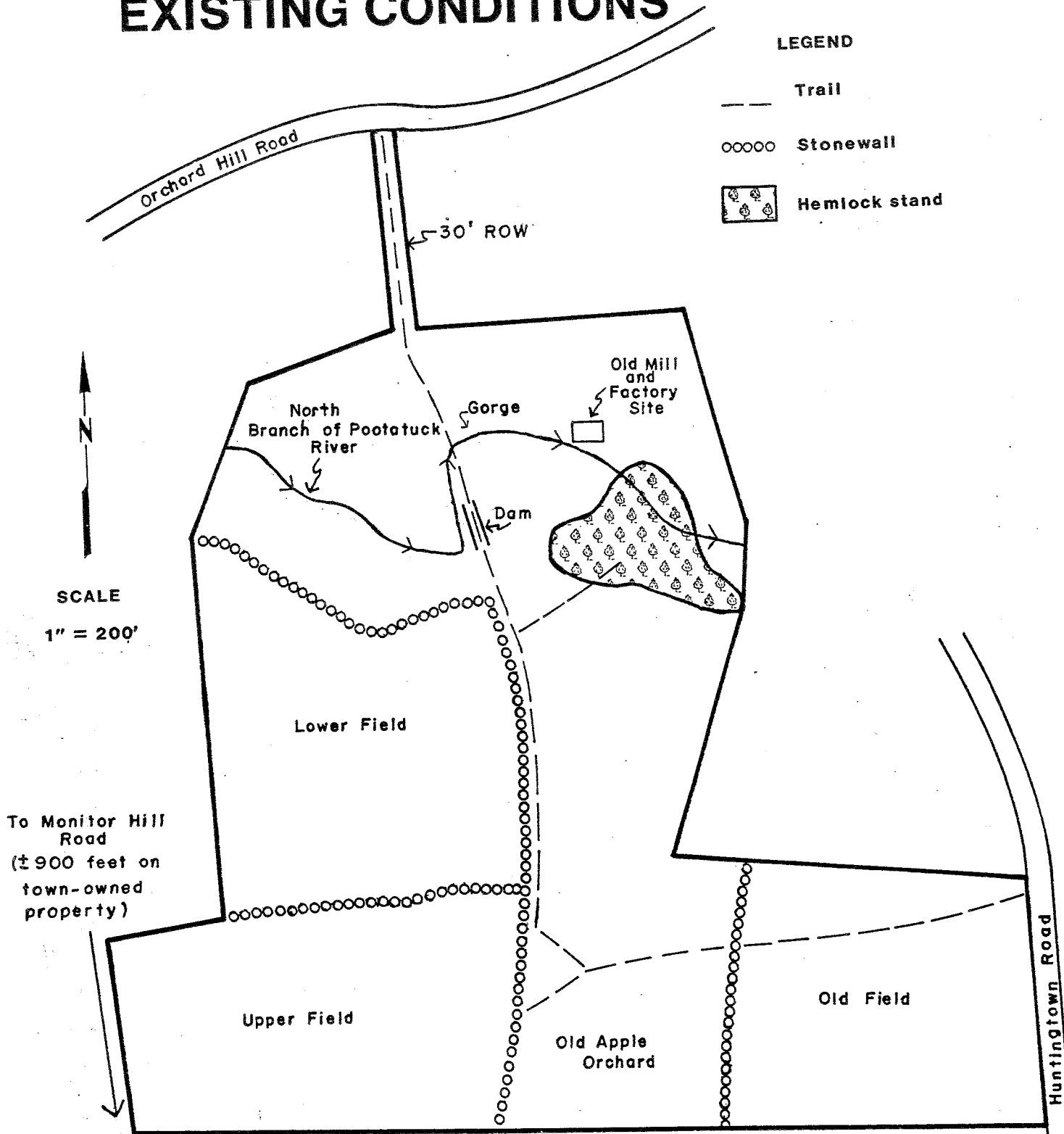
Marc Beroz.....Soils Scientist.....U.S.D.A. Soil Conservation
Service
Robert Dlugolenski.....Recreation Planner.....CT Department of
Environmental Protection

FIGURE 1 TOPOGRAPHIC MAP



Scale 1" = 1000'

FIGURE 2 EXISTING CONDITIONS



Richard Lynn.....ERT Coordinator.....King's Mark RC&D Area

Paul Rothbart.....Wildlife Biologist.....CT Department of
 Environmental Protection

Don Smith.....Forester.....CT Department of
 Environmental Protection

David Thompson.....District Conservationist.....U.S.D.A. Soil
 Conservation Service

Prior to the review day, each team member was provided with a summary of the proposed study, a checklist of concerns to address, a soils map, a topographic map, and a soils limitation chart. The day of the field review, team members met with representatives from the Newtown Parks and Recreation Commission and walked the property. 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. The report identifies the natural resource base of the property and discusses opportunities and limitations for recreational land use. All conclusions and final decisions with regard to future land use, however, rest with the Town of Newtown. It is hoped the information contained in this report will assist the town in making environmentally sound decisions. If any clarification of this report is required, please contact Richard Lynn (868-7342), Environmental Review Team Coordinator, King's Mark RC&D Area, Sackett Hill Road, Warren, Connecticut 06754.


* * * *

II. SOILS

A Soils Map of the subject site, prepared by the Team's Soil Scientist, is presented in Figure 3 of this report. This map is a refinement of the data shown in the "Soil Survey of Fairfield County, Connecticut". As shown in Figure 3, six different map units have been identified on this site. Each of these map units is discussed below.

AfB - Agawam fine sandy loam, 3-8% slopes

This area is composed primarily of soils that are gently sloping (3-8% slopes), deep and well drained. They have fine sandy loam textures throughout their depth. Some thin soil horizons containing gravel and cobble sized rock fragments may occur between the depths of 8 and 30 inches. It should be noted that while this area may be mapped as an Agawam soil, the area is somewhat different from the classic Agawam soil, which has a substratum composed entirely of stratified sand and gravel.

The soils within this AfB area have a seasonally high water table between the depths of 20 and 30 inches. In some spots the water table is closer to the surface. These spots are primarily along the south side of the dirt road crossing this area. The approximate locations of these wet spots are identified on Figure 3 with spot symbols that look like this:  .

This soil area has fair to good potential for paths and trails, ballfields or a parking area. Care should be taken to avoid any development within the areas with seasonally high water tables close to the surface. Not only would maintenance of these wet areas be problematic but an erosion problem could result. The surface water presently flowing along the dirt road may also cause a troublesome erosion problem if heavy foot or vehicular traffic occurs. This concern should be addressed in the development of any management plan for the property (e.g., gravelling the surface, installation of cross culverts, use of curtain drains).

HkC - Hinckley gravelly sandy loam, 8-15% slopes

This area is composed primarily of Hinckley soils. Slopes range from 3 to 15 percent. Eight to 15 percent slopes predominate along the drainages and 3 to 8 percent slopes are more typical of the area referred to as the "Lower Field" (see Figure 2).

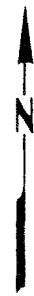
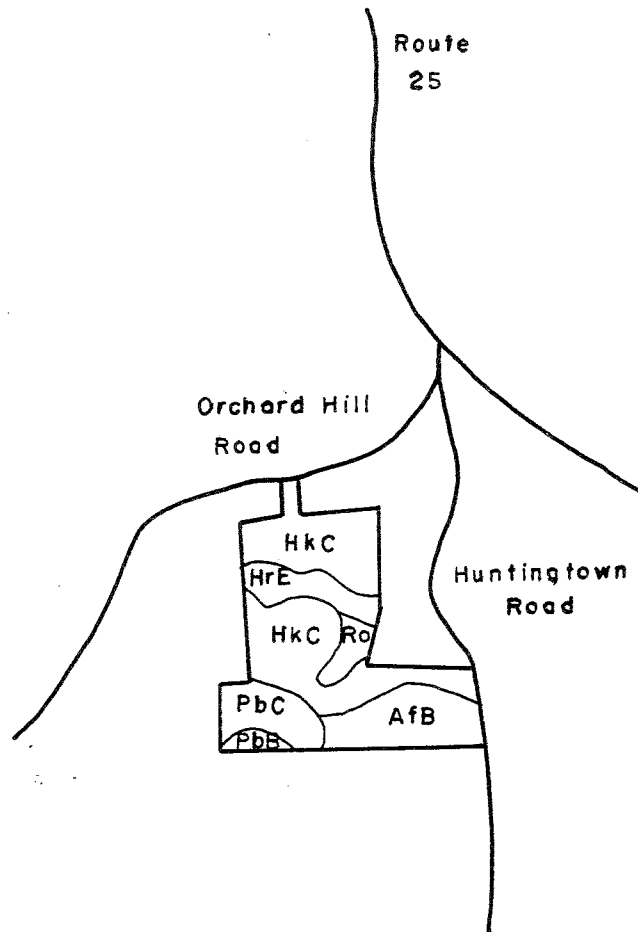
Hinckley soils are deep and excessively well drained. They have a fine sandy loam surface layer about 8 inches thick overlying stratified sands and gravels to a depth of 60 inches or more.

These soils are well suited for foot and vehicular traffic. An access road and parking area could be developed off Orchard Hill Road with minimal problems in construction or maintenance. Slopes along the 30 foot right-of-way to the property range from 3 to 8 percent.

Picnic areas can also be developed easily; however, costs associated with their development will increase as slope steepens.

These soils have moderate potential for the development of ballfields. If the "Lower Field" is used, cuts and fills will be necessary to make a

FIGURE 3 REVISED SOILS MAP



Scale
1" = 1000'

Prepared by Marc Beroz, USDA Soil Conservation Service
See text for soil descriptions

level playing surface. In many places the sands and gravels contained in these soils will be exposed. The gravel may interfere with the use of these ballfields and both the sand and gravel will result in droughty conditions for plant growth. If this area is developed for ballfield use, topsoil should be brought in to provide a good playing surface and adequate conditions for plant growth.

If this area is developed for ballfield use, a curtain drain is recommended along the boundary of the upper and lower meadow to intercept subsurface seepage. If a significant cut slope results from the regrading of the lower meadow, the curtain drain should be up slope of the cut slope.

HrE - Hollis - Rock outcrop - Charlton complex, 15-45% slopes

This area is along the north branch of the Pootatuck River and has 15 to 45 percent slopes. The area is composed of 2 kinds of soils and rock outcrops.

One soil named Hollis covers about 40 percent of the site and is less than 20 inches to bedrock. The other dominant soil named Charlton comprises about 20 percent of the area and is greater than 60 inches deep. The Charlton soils tend to be located the furthest away from the river. The soils and rock are so intermingled on the landscape that they cannot be separated on the soil map.

The dominant features of this area are its steepness of slope, rock outcrops and shallow soils. Any development of this area should be carefully planned to minimize soil disturbance and subsequent sediment deposition into the river.

PbB - Paxton fine sandy loam, 3-8% slopes

This area is primarily Paxton soils on 3 to 8 percent slopes. These soils are deep and well drained. They have fine sandy loam textures throughout their depth. A consolidated layer called hardpan has its upper boundary at a depth of about 24 inches in this soil type.

These soils are poorly suited for ballfields. Extensive cuts would be needed to develop a level playing surface of adequate size. These cuts would expose the hardpan. The consolidated nature of the hardpan does not allow water to readily move through it. As a result, water accumulates above the hardpan and tends to move laterally over the hardpan's upper surface. Even if topsoil was placed over this hardpan material, the topsoil would remain soggy in the spring and fall, as well as after heavy summer rains.

Any cuts made to develop ballfields will result in slopes that need to be stabilized. Groundwater flowing laterally over the hardpan surface will seep out of the ground wherever these slopes occur and the hardpan has been exposed. This groundwater seepage may result in slumping of these disturbed slopes. This would be an expensive problem to remedy.

If a ballfield is constructed in this area, a curtain drain will be needed up-slope of the cut slope, a subsurface drainage system will be needed under all of the playing area (consisting of 4" diameter drains, in stone filled trenches at 40' spacings) and the playing area surface should be constructed of a layer of gravel, topped off with a six inch layer

of top soil.

The soils in this area are well suited for paths and trails. Foot trails in the areas where slopes approach 8 percent should follow the natural contour as much as possible.

PbC - Paxton fine sandy loam, 8-15% slopes

This area is dominantly Paxton soils on 8 to 15 percent slopes. These soils have the same characteristics and interpretations as the Paxton soils described above in the PbB map unit except they have steeper slopes.

Ro - Rippowam fine sandy loam

This area is composed primarily of Rippowam soils on 3 to 8 percent slopes. These soils are deep and poorly drained. Typically these soils have fine sandy loam textures to a depth of about 24 inches overlying stratified sand and gravel to a depth of 60 inches or more. Rippowam soils have a seasonally high water table within 18 inches of the surface and are considered wetland soils.

This wetland traps sediment and nutrients washed off upslope areas. The wetland does not serve to significantly retard floodwaters due to the slope of the landscape (i.e., ponded water does not accumulate here).

This area is poorly suited for any type of development. Paths and trails crossing this area will be wet for much of the year. However, there are many stones on the soil surface. With careful planning a trail could be designed taking advantage of these stones for a walking surface.

Erosion and Sediment Control

All of the soils on the site are extremely erodable; intensive erosion and sediment control measures will be needed to curtail the impact of any development. Of particular concern will be:

The scheduling of any earth moving activities to avoid spring and fall precipitation and excessive seepage. Any seeding should be completed prior to September first.

The regrading of the meadow(s). A sequence of construction plans, including all erosion and sediment controls, should be prepared and included in any earth moving contract.

The relocation of the access road. Extensive excavation will be required off Huntingtown Road with limited opportunity for erosion or sediment control. In addition, improved storm water drainage may be required on Huntingtown Road to accommodate runoff from the access road.

III. VEGETATION

A. General Considerations

The vegetative types discussed in this report vary in their potential for forest management. Forest management, as used in this report, refers to

the manipulation of forest vegetation, usually through the cutting of trees or the planting of trees to bring about, maintain or improve certain desirable forest conditions.

When properly prescribed and executed, forest management practices will increase the production of forest products, improve wildlife habitat, improve forest aesthetics and enhance the overall condition of the woodland. Without sound management there is no control over the quality of these conditions. Specific management opportunities are outlined for each vegetation type described within the parcel. For more detailed information, a public service forester with DEP or a private forester should be contacted.

Thinning harvests are prescribed in stands where trees are declining in health and vigor due to over crowding. These thinnings are designed to reduce competition between residual trees for space, sunlight, water and nutrients. Only trees that are of poor quality, damaged, or in direct competition with high quality trees should be removed during these thinnings. Stands once thinned should become more stable, healthy and less susceptible to damage caused by insects, disease and adverse weather conditions.

Where no management practices are discussed, the vegetation is healthy as is. These areas should be reevaluated for future management needs at approximately 10 year intervals.

Areas such as the "old pond flowage" (see Figure 4) which have little potential for forest management are also noted in the vegetation type description. These areas have little or no value for timber production, however their value for wildlife habitat and nature study is high.

From a resource management and maintenance stand point, it would be advisable to have all of the boundaries on this parcel clearly marked.

To maintain the quality of the trails which are present, periodic maintenance is essential. At least once a year all the trails throughout this property should be inventoried for erosion problems and dead or dying trees which represent a potential hazard. Erosion problem spots should be eliminated through the proper placement of water diversions, or relocation of the trails to avoid existing problem areas. Trees that are potentially hazardous should be promptly felled. For assistance in trail design and maintenance, the USDA Soil Conservation Service office in Bethel (743-5453) should be contacted.

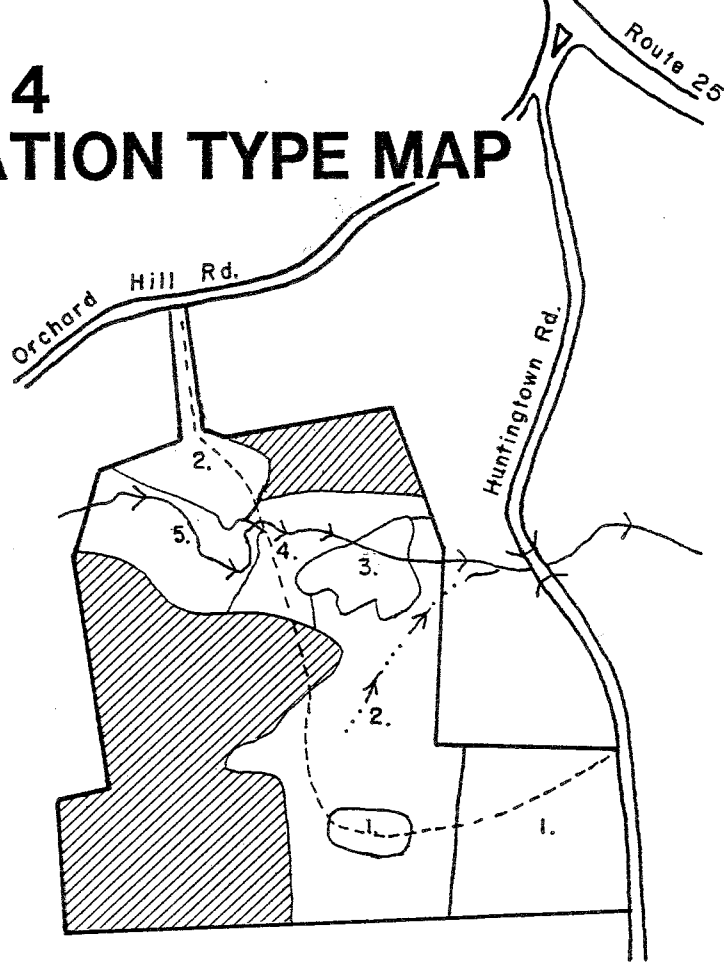
B. Stand Descriptions

As shown in Figure 4, five forest stands are present on this property. Each of these is described below.

#1 - Reverting Field, 4 acres - This understocked old field is composed of medium quality, pole sized red cedar with occasional grey birch, red maple, and red oak. These trees are growing at any average rate on a medium quality growing site and are approximately 20 years old.

The understory species encountered include silky dogwood, autumn olive, multiflora rose and raspberry.

FIGURE 4 VEGETATION TYPE MAP

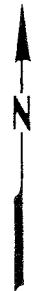


LEGEND

- Paved road
- Bridge
- Trail
- Stand boundary
- Stream
- Vernal stream

ACREAGE BREAKDOWN

Stand #	Acres	Type
	9	Open field (non-forested)
1.	4	Reverting field
2.	7	Mixed hardwoods
3.	1	Hemlock
4.	1	Dam site
5.	2	Old pond flowage
TOTAL	24. Acres	
TOTAL FORESTED	15. Acres	



Scale 1" = ± 450'

Prepared by D. Smith, CT DEP

The ground cover here includes grasses, mosses, ground pine, ground juniper, red cedar, and hardwood reproduction.

No forest management work is feasible at this point. Serious consideration should be given to installing erosion controls on the access trail from Huntingtown Road.

#2 - Mixed Hardwoods, 7 acres - This overstocked stand is composed of good quality, pole to sawlog sized red maple, black birch, ash, hickory, red oak, and black oak. Apple can be found in the southern end. These trees are growing at a fair rate on a good quality growing site and are approximately 60 years old.

The understory species encountered include spicebush, ironwood, maple-leaved viburnum, and hardwood advanced reproduction.

The groundcover here includes Christmas fern.

This stand is in need of a thinning in the opinion of the Team's forester to improve the overall health and vigor of the area. Removal of the poorer quality trees will favor an increased growth rate in the residual stems. Material removed could be utilized as fuelwood with sawtimber being a minor component. The thinning operation could be conducted in the winter when the frost provides additional support for vehicle traffic. Brush from the branches left behind could be piled so as to provide cover for small birds and mammals.

#3 - Hemlock, 1 acre - This fully stocked stand is composed of medium quality, pole sized hemlock. These trees are growing at a poor rate on a fair to poor quality growing site and are approximately 40 years old.

The understory species encountered include hemlock reproduction. Both the understory and groundcover are severely limited due to a dense crown cover.

This stand should be thinned in the opinion of the Team's forester to promote more vigorous growth. Thinning should be aimed at the removal of the undesirable stems. These would be stems which are dead, deformed, or diseased. This light sanitation thinning will assist the healthiest trees and promote the development of adequate regeneration.

#4 - Dam Site, 1 acre - This under stocked stand is composed of poor to medium quality, pole to sawlog sized white oak, beech, red maple, and ash. These trees are growing at a poor to medium rate on a poor quality growing site and are approximately 80 years old.

The understory and ground cover are sparse due to heavy foot traffic and shallow, droughty soils.

As this area is apparently one of the heaviest used areas, forest management should be aimed at promoting safety and enhancing the areas's aesthetics. Large dead branches should be pruned away. Diseased stems should be cut away and softwood species better able to cope with poor growing conditions should be planted.

#5 - Old Pond Flowage, 2 acres - This understocked developing hardwood swamp is composed of medium quality, pole sized red maple with ash and yellow birch found in the drier margins. These trees are growing at a good rate on a medium quality growing site and are 40-60 years old.

The understory species encountered include spicebush, viburnum, and shadbush.

The ground cover here includes skunk cabbage, Christmas fern, other ferns, jewelweed, violet, jack-in-the-pulpit, and hummocks of grass.

No forest management is feasible here due to the nature of the soils in this area.

C. Species Diversity

It should be noted that within the five vegetation stands and the open fields on this site, exist a remarkable diversity of vegetation. In the "Orchard Hill Nature Area Feasibility Study" prepared by George Adams et al, the following have been "tentatively" identified on the property: 19 species of ferns and club-mosses, 37 species of trees and shrubs, and 17 wildflower species on the Connecticut Preservation List. The Adams' report also lists 64 species of birds which have been "tentatively" identified on the site. A thorough cataloging of the vegetation on this site by a knowledgeable biologist over a minimum one year period would be highly desirable for educational purposes.

IV. WILDLIFE

The Orchard Hill Property may be divided into five major habitat types. These include woodland habitat, open land habitat, hardwood swamp, hemlock habitat, and stream habitat. Each of these is described below.

1) Woodland Habitat - This habitat type makes up approximately 12 acres of the area providing many species of wildlife with high quality food and cover. Trees such as the oaks (especially the large black and red oaks) and ash produce large quantities of mast (i.e., nuts) which are utilized predominantly by grey squirrel and white-tailed deer. Wildlife species which utilize this habitat type are raccoon, grey fox, ruffed grouse, and many non-game species, including song birds, small rodents, reptiles and amphibians.

2) Open-land Habitat - This habitat type consists of both open fields and scattered openings in various stages of succession. The open-land habitat makes up approximately 9 acres of the area and is important for a variety of wildlife species. These areas will attract and be utilized by many wildlife species at different times throughout the year.

3) Hardwood Swamp - This habitat type makes up approximately 2 acres of the area. The major overstory vegetation consists of red maple and the understory is predominantly spicebush and skunk cabbage.

4) Hemlock Habitat - This habitat type (1 acre) is located along the brook in the northern section of the area. This area provides many species of wildlife with quality cover and nesting sites.

5) Stream Habitat - The stream habitat and mill pond site provides for excellent wildlife habitat. Wildlife species which utilize this habitat type are

raccoon, ruffed grouse, and many non-game species of songbirds, reptiles and amphibians.

Discussion

A rich diversity of habitat exists at the Orchard Hill Property. If active recreation (particularly softball, basketball and soccer) is developed as proposed, there will be an immediate negative impact on wildlife throughout the property. The primary impact would be a direct loss of habitat due to roads, parking areas, and the ball fields. Another impact, and of greater significance, is the increased human presence, vehicular traffic, and other disturbances in the area which collectively will most likely drive the less tolerant (shy) wildlife species from the site, even in those areas where the land has not been physically changed.

A number of measures can be implemented to enhance the existing habitat at this site. The property can best be managed for wildlife if efforts are taken to create and maintain it as an overall upland wildlife management area. This can be accomplished by implementing the following:

A. Maintain reverting fields (herbaceous openings) at various successional stages to satisfy species specific needs. Numerous apple trees located in these openings should be encouraged through "apple tree release". "Apple tree release" is releasing surrounding trees that are crowding out apple trees, waiting one year for tree vigor to come back, then pruning and fertilizing the apple trees.

B. Open area maintenance. Open fields should be mowed at least once every three years to keep shrub and tree species from invading and provide succulent vegetation. A perimeter of tall grass should surround the mowed area to provide undisturbed nesting and escape cover. Open area edges can be maintained by thinning and pruning with brush piles made along the forest edge for cover.

If open fields are to be mowed for hay, no cutting should be allowed prior to August 1. This will avoid damage to nesting bird species. Also, a fifteen foot uncut border should be left surrounding the field. This border should be mowed every 3 to 5 years, never all at the same time, and preferably after August 1. These uncut "field borders" provide nesting and feeding areas for many avian species of wildlife.

C. Encourage the expansion of aspen that is located along the edge of the two open fields. Aspen should be managed for a diversity of age classes. Aspen produces excellent habitat for ruffed grouse and woodcock.

D. Leave/encourage buffer strips of vegetation along wetland areas. These strips should be 50 to 100 feet wide.

E. Erect bluebird boxes along the open field edges.

It should be recognized that for optimum wildlife habitat potential, a variety of successional-stage vegetation should be encouraged. Proper maintenance of openings, field borders, apple tree releases, etc. needs to be carried out. Without proper maintenance schedules, vegetation will succeed and lower the wildlife habitat potentials that exist on the site.

If any future wildlife questions arise, the town should feel free to contact

the Western District Wildlife Biologists at 485-0226.

V. RECREATION POTENTIAL

The Newtown Parks and Recreation Commission is currently investigating two (2) proposals for the future recreational use of the Orchard Hill Property.

The proposals under consideration are:

- (1) Restricting future use for passive recreation only; and
- (2) Combining passive recreational use of the property with a limited amount of active recreational use.

With regard to the second alternative, the Commission recognizes a need for additional ballfields and a soccer field in town and is interested in the suitability of the Orchard Hill property for developing a portion of the property for this purpose. Additional facilities being considered for the property include nature trails, cross-country ski trails, horseback riding trails and a basketball court.

Of particular concern to the Commission is whether or not portions of the site can be developed for active recreational use without significantly degrading the natural beauty of the property and its ecological systems.

Passive Recreation

The Orchard Hill Property, with its unusual natural and historic features, offers a very desirable setting for passive recreation.

The report entitled "Orchard Hill Nature Area Feasibility Study" prepared by Mr. George Adams, provides a comprehensive overview of the unique features of the property. It specifically identifies a variety of different habitats, soils, fauna, flora and some historical background on the dams and mills found on the property. The study advocates that this natural area should be protected and preserved.

A decision by the Newtown Parks and Recreation Commission to designate the property for passive recreational use would: (1) provide for the protection and preservation of this natural area; and (2) provide new opportunities for individuals with varied passive recreation interests.

The majority of people who will be attracted to the site will be individuals who enjoy nature and interpretive experiences.

An effective means by which visitors can learn about and develop an appreciation for nature and conservation is to develop a Self-Guided Trail system on the property.

Although some trails presently exist, a thorough reconnaissance of the area should be undertaken, taking an inventory of all the natural and historic features of the site and plotting their location on a map. From this information, planning can proceed to improve upon the existing trails and/or to add new trails.

Before any trails are improved or new ones added, a trail use policy should be established. A nature trail is an educational trail designed for people who are walking. Activities such as jogging or horseback riding are generally incompatible. Multiple trail use may be permissible, however, for low volume situations. An increase in volume may necessitate a policy to discourage multiple uses.

The historic dams and mills are a unique feature of the property and would be a highlight of a trail tour. The State Historic Preservation Office believes that this area may qualify for the National Register of Historic Places. It is recommended that the Town pursue this potential until a final determination is reached.

Trail construction will need to take into consideration potential wet areas, drainage and erosion problems, encroaching on fragile areas and safety. The area which includes the historic dams and mills may be classified as fragile. Extra care should be taken in the trail design in this area which will afford visitors exposure and enjoyment of the area without threatening the irreplaceable features of the site.

The height of the dam poses a potential serious safety hazard. The existing snow fence seems to provide a reasonable solution to the danger. However, it should be inspected frequently and properly maintained.

The construction of a footbridge over the Pootatuck River is recommended at or near the dam site. This will allow access to the entire tract and if elevated high enough would provide an ideal view of the scenic features of the falls and gorge downstream.

To enhance the trail experience, consideration might be given to developing a trail brochure which might include a map of the trail system; identification of items of interest (the different habitats, trees, flowers, historic features, geological features, signs of wildlife, etc.); and a brief narrative of each with illustrations where possible.

Trail markers corresponding with numbers or letters in the brochure could be used to identify stations or points of interest.

Access to the Orchard Hill Property is available from Huntingtown Road, Orchard Hill Road and potentially from Monitor Hill Road.

The poor sight lines, due to curves and hills, at the existing access point on Huntingtown Road creates a dangerous situation. Sight lines could be improved by developing an access point further to the south. The installation of stop signs or warning signs should be considered in any event.

The Orchard Hill Road access is approximately 30 feet wide. To facilitate access at this point, consideration should be given to creating a parking area at the termination of this entrance. It should be noted, however, that this access point also has poor sight lines and presents serious safety problems. An alternative suggested the day of the ERT's field review, which should be pursued, is to arrange for permission for visitors to park in the lot at the Little Theater nearby. This would eliminate vehicular access entirely. Sight lines at the Orchard Hill access point could be enhanced by the removal of

several trees located just west of the access point along Orchard Hill Road.

The Monitor Hill Road access, located on a seven acre spur to the south west of the subject site, left to the Town by a housing developer, doesn't have the traffic or sight line problems of the other access points. However, it is located on a cul-de-sac in a residential area. Use as an access point, may prove to be objectionable to the neighbors. Its use as an access would also mean the development of a long road to gain access to the Orchard Hill Property, or a long walk for its visitors. Another major concern is that much of this potential access area consists of inland wetland soils.

In the opinion of the Team's recreation planner, access should not pose a serious problem if this area were used for passive recreation only. Passive recreation doesn't invite intense use. Thus, there should be minimal impact on traffic and limited need for additional parking. Efforts should nonetheless be taken to make the chosen access points as safe as possible.

Active Recreation

The Newtown Parks and Recreation Commission is considering the feasibility of combining passive recreational use of the property with a limited amount of active use.

The Commission recognizes that the Community is in need of additional athletic fields to accomodate current needs and expected growth demands of the future.

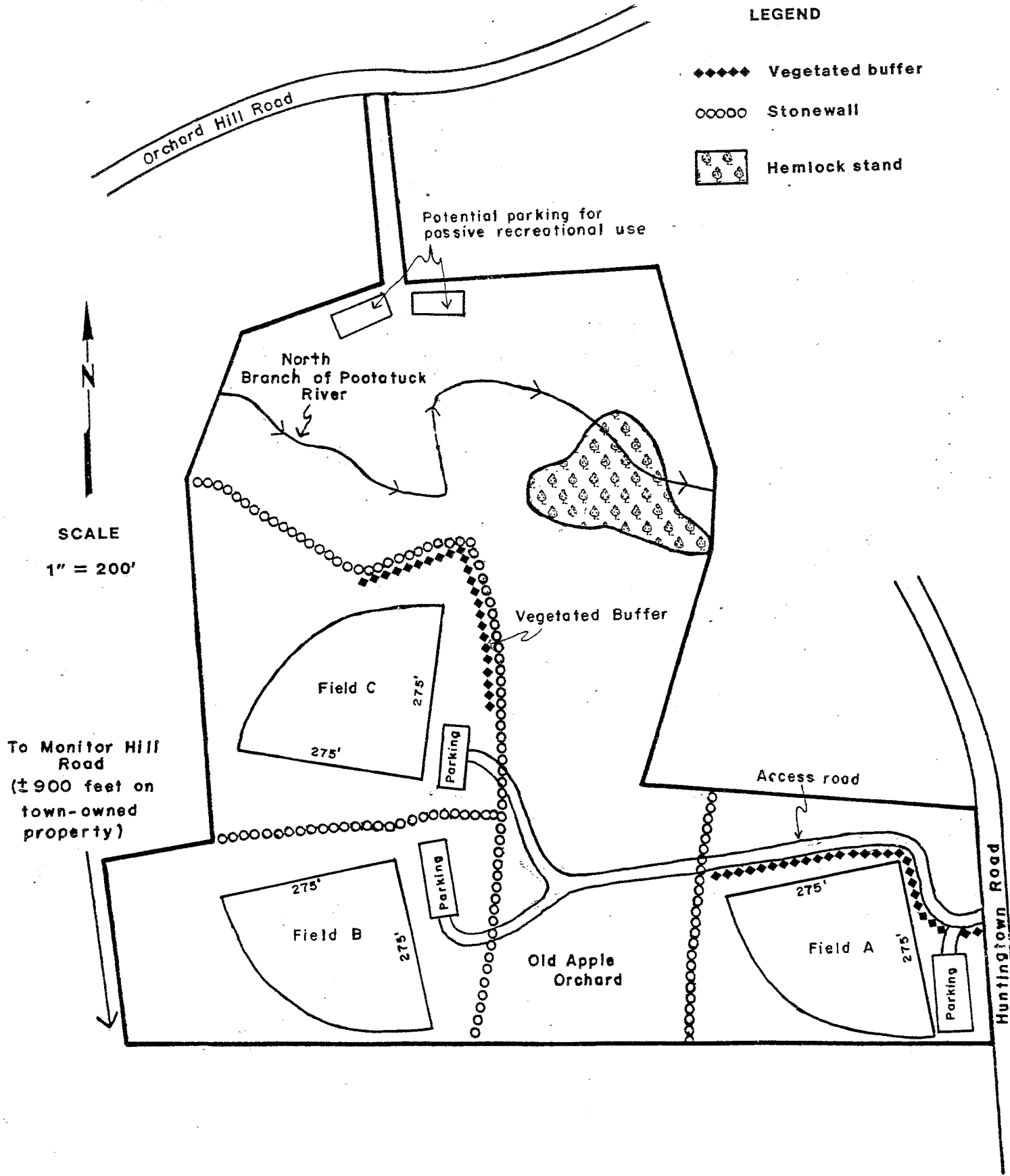
The Commission is examining whether portions of the Orchard Hill tract would be feasible for athletic field development and whether such facilities could be developed in harmony with passive recreational use without significantly degrading the natural aspects of the property.

The Orchard Hill property with its heavily wooded areas, steep slopes and wetland areas possess serious limitations for the development of athletic fields on much of the site. Nevertheless, there does appear to be three areas where softball fields could be constructed. The general location of these three areas is shown in Figure 5. According to recreation design standards*, 275' is required down the foul lines for a men's slow pitch field. The general suitability of each of the three potential ballfield areas shown in Figure 5 is discussed below.

Area A is located on a gently sloping, sandy loam soil which is suitable for ballfield construction. Site preparation would require the removal of the old field trees in this area, leveling the playing surface, topsoiling, seeding and mulching. Improved vehicular access and parking space would also be required. The advantage offered by development of this area would be the proximity to Huntingtown Road (which would minimize interior road construction) and the + 800' separation distances from the scenic gorge area on the northern half of the site. This separating distance would provide a vegetated "buffer"

*Planning Facilities for Athletics, Physical Education, and Recreation by The Athletic Institute and the American Association for Health, Physical Education, Recreation and Dance, 1983.

FIGURE 5 POTENTIAL SOFTBALL FIELD SITES



between active and passive recreation areas and would help mitigate adverse impacts on wildlife. The disadvantages of construction here would include loss of a reverting old field habitat, the proximity to neighboring houses (where noise and littering could prove problematic), and the additional expenses incurred in clearing the trees in this area.

Area B is located on soils with poor suitability for ballfields. As discussed in the soils section of this report, considerable regrading and extensive drainage provisions would be required to develop a ballfield in this area.

Area C is located on gently sloping soils suitable for ballfield construction and is presently an open field. Ballfield construction would be easier here than in Area A as no trees would have to be removed. There are two major drawbacks to construction of a ballfield in this area, however. First, in order to provide access to this area, a $\pm \frac{1}{4}$ mile road would need to be constructed off Huntingtown Road. Second, this area abuts the scenic gorge area on the property and would inevitably interfere with and diminish the passive recreational experience offered by this section of the property. Due to the uniqueness of the gorge area on this property, this latter impact is viewed as a major concern. While this lower field area is better buffered from neighboring properties than is Area A, the wildlife impacts and impacts on the passive recreational use and enjoyment of the area would likely be greater with construction at Area C than at Area A.

According to recreation standards, the minimum area required for a soccer field is 300' x 150' with the long axis of the field in a north/south direction. Based on this standard, it appears that Areas B and C, if developed for ballfield use, could double as a soccer field if so desired. It does not appear as though there is sufficient room in Area A to construct a soccer field to the above standards.

If the Orchard Hill Property is developed for ballfield use, a number of other factors should be considered. These include:

1) the need for rest rooms and drinking water. It is likely that any well located on this site would depend on a bedrock aquifer for recharge. While there is no way to predict the yield potential of any given on-site well, the median yield from a bedrock well in the Housatonic Basin is seven gallons per minute. Assuming this yield, there would be sufficient supply for potable and sanitary requirements, but not for irrigating. If an irrigation supply was desired, an excavated basin within the river upstream of the dam could be constructed to provide a dependable water supply. With regard to on-site sewage disposal, it should be noted that all of the soils on this site are rated by the USDA Soil Conservation Service as having severe limitations for septic systems. In the areas of the potential ballfield construction, the Paxton soils are limited by the underlying hardpan layer; and the Agawam and Hinckley soils are poor filters which can lead to the pollution of groundwater.

2) providing safe and efficient access. This will become a more serious concern if the area is developed for active recreation (see preceding discussion of access concerns).

To conclude, the Orchard Hill Property is exceptionally well-suited for use as a passive recreation area. The property also has the potential for supporting up to three softball fields. It appears certain, however, that

construction of athletic facilities on the site would diminish the passive recreational use and enjoyment of the area together with its present value as a natural area. The physical modification of the site required for ballfield construction would destroy a number of the natural features and resources of the site. In addition, the increased human presence in the area, along with its attendant cars, noise, litter, and vandalism would likely cause additional changes to the existing flora, fauna, and natural and historic features of the property.

Before pursuing the development of athletic fields on this site, the Newtown Parks and Recreation Commission might wish to explore and study other options which may prove to be a possible solution to the supply and demand problem of ballfields. These include: examining the expansion potential of existing parks; utilizing existing school facilities; cooperatively developing new facilities on board of education property; and lighting existing park and/or board of education facilities.

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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.