KING'S MARK ENVIRONMENTAL REVIEW TEAM

REPORT FOR

WOLFE PARK EXTENSION

MONROE,
CONNECTICUT

King's Mark Resource Conservation and Development Area, Inc.

WOLFE PARK EXTENSION

MONROE, CONNECTICUT

Environmental Review Team Report

Prepared by the King's Mark Environmental Review Team
of the King's Mark Resource Conservation
and Development Area, Inc.

Wallingford, Connecticut

for the

Monroe Parks and Recreation Commission

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 development and also suggests considerations that should be of concern to the Parks and Recreation Commission and the Town. The results of the Team action are oriented toward the development of a better environmental quality and long-term economics of the land use. The opinions contained herein are those of the individual Team members and do not necessarily represent the views of any regulatory agency with which they may be employed.

DECEMBER 1989

ACKNOWLEDGMENTS

The King's Mark Environmental Review Team Coordinator, Nancy Ferlow, would like to thank and gratefully acknowledge the following Team members whose professionalism and expertise were invaluable to the completion of this study:

* William Warzecha, Hydrogeologist
  Department of Environmental Protection - Natural Resource Center
  566-3540

* Walter Smith, District Conservationist
  USDA - Soil Conservation Service
  743-5453

* Jerry Milne, Forester
  Department of Environmental Protection - Bethany Forestry Office
  393-0723

* Judy Wilson, Wildlife Biologist
  Department of Environmental Protection - Western District
  485-0226

* Donald Mysling, Fishery Biologist
  Department of Environmental Protection - Western District
  485-0226

* Nicholas Bellantoni, Archaeologist
  Office of State Archaeologist
  486-5248

* David Favour, Planner
  Greater Bridgeport Regional Planning Agency
  366-5405

I would also like to thank Susan Anderson, Secretary of the King's Mark Environmental Review Team for assisting in the completion of this report.

Finally, special thanks to Ron Wallisa, Director of Parks and Recreation, David Solek, Park Ranger, John Hedd, Park advisor, William Gray, student, Masuk High School, and Rich Backer, Fairfield Soil and Water Conservation District, for their cooperation and assistance during this environmental review.

EXECUTIVE SUMMARY

Introduction

The Monroe Parks and Recreation Commission has requested that an environmental review be conducted on Wolfe Park Extension, a site proposed for recreational development. The site is located in southcentral Monroe. In 1981, the ERT did a report on Wolfe Park. The Team suggested that the park expand their facilities for additional recreation. In 1989, a condominium development to the north of Wolfe Park donated the 90-acre site for recreation. The Town is interested in the natural resources of the site and the potential for active and passive recreational uses.

The review process consisted of 4 phases: (1) inventory of the site's natural resources; (2) assessment of these resources; (3) identification of resource problem areas; and (4) presentation of planning and land use guidelines. Based on the review process, specific resources, areas of concern, development limitations and development opportunities were identified. The major findings of the ERT are presented below:

Setting, Topography and Land Use

The site is bounded by single-family residences and wooded, undeveloped land. Single-family houses and an active recreational facility characterize the vicinity. The site is contains by gentle to moderate relief.

Geology

The bedrock underlying the site is identified as the Collinsville Formation. Bedrock outcrops are widespread. Glacial till overlays the bedrock on much of the site. The texture of the till is mostly sandy and loose. Stratified drift deposits are found in the river valley. The stratified drift is highly permeable and could be used as a water supply source. The aquifer potential of these deposits must be investigated, but these types of deposits often yield moderate to large amounts of water. The underlying bedrock also is a potential aquifer.

Recreational Potential from a Geological Perspective

The site has high potential for both active and passive recreational uses. The important natural features are the Pequonnock River Valley, the rockshelter and the inland wetlands. These offer environmental education and passive recreation opportunities. Areas which are suitable for active recreation include the open fields in the southwest corner. If sanitary facilities are required, they could be built in several areas. Soil testing should be done to verify subsurface conditions for on-site sewage disposal.

Water Resources

Drainage from the site flows into the East Branch Pequonnock River and the unnamed stream which flows into Great Hollow Lake. The watershed area that supplies Great Hollow Lake is approximately 1,970 acres. A review of airphotos indicates that the course of the East Branch Pequonnock River has changed very little over the years. Upstream from the lake there has been some change due to the creation of the lake. Subtle changes are expected due to storm events. Uncontrolled runoff from development upstream can accelerate streambank erosion. The Town must enforce erosion and sediment controls to prevent erosion and sedimentation in the East Branch Pequonnock River and Great Hollow Lake.

Surface waters on the site are considered to be Class A water resources. Groundwater is Class GA. Efforts should be made to protect the waters from contamination with fertilizers, septic system effluent, road sand, salt and sedimentation. A detention basin from the development to the north is planned for the wetland in the northwest corner. The basin should have an access point for maintenance and should be fenced in if it is dangerous to users of the park. The flood insurance rate maps show that the East Branch Pequonnock River and the unnamed streamcourse have 100-year floodplains. These areas hold low potential for active recreation.

Soil Resources

In general, the soils on the site are suited for recreation. All of the upland soils are suited for trails. Erosion control measures should be built where trails cannot avoid steep slopes. Active recreation should be kept within the CfB soils. These soils are excellent for athletic fields. .

Sediment and Erosion Control

For existing and planned trails, steep slopes should have waterbars. Bridges should be used where trails cross the stream. Lightly used trails can be seeded to prevent erosion. Heavily used trails should use wood chips or bark. Trails near streams require a buffer along the stream to minimize impacts. Erosion and sediment controls should be planned, reviewed and installed prior to construction. Trail maintenance is often overlooked. Periodically, trails should be examined, and necessary repairs should be made.

Forest Resources

The site contains primarily upland forest 80-100 years old. Also included are open fields, swamp and reverting fields. The upland forest is declining in health. A thinning would benefit the forest and provide areas for new growth. Openings should be made to regenerate the mast producing trees for wildlife. A consulting forester can assist in planning a thinning. The total acreage for the park should be enough land to make the harvest commercially feasible. Revenues from the harvest could be used for park improvements. Recreational activities can be compatible with forest management.

Wildlife Considerations

The extension of Wolfe Park serves to complement the existing wildlife habitat. The site contains good wildlife habitat because it contains a diversity of habitats. The value is enhanced because of the Pequonnock River and the wetlands. The forest habitat contains mature oak and hickory with pole-sized cherry and birch. Recommendations include creating small openings to encourage reproduction of mast-producing trees and cutting around the patches of red cedar and blueberry to encourage growth and berry production. The riparian and wetland areas provide habitat for reptiles, amphibians, beaver, otter, raccoons and a variety of birds. Recommendations include maintaining a buffer strip around the wetlands and minimizing erosion at river crossings. There are scattered areas of old fields and open fields. These areas provide early successional vegetation and food for many species. These areas provide diversity and increase the edge effect. Recommendations include maintaining the open fields by mowing every other year, maintaining the old fields by mowing every 3 years and cutting trees around the perimeter to maintain field size and optimize sunlight for shrub growth. Active recreational use should be limited to certain areas to avoid impacts to wildlife habitat. Areas of habitat should be connected. Passive recreation should not affect wildlife greatly. If wildlife and forestry practices are implemented, an interpretive trail could be designed to explain the practices. Use of the trails in winter for cross-country skiing will have little impact on wildlife.

Fisheries Resources

The East Branch Pequonnock River is a coldwater stream. Great Hollow Lake is managed for sportfishing. Approximately 610 trout each year are stocked in the lake. Should conditions in the watershed remain unchanged, impacts to the waterbodies will be minimal. Development in the watershed may affect the waterbodies, most noticeably the lake. Concerns include erosion and sedimentation, stormwater drainage and lawn maintenance chemicals. Impacts can be minimized through buffer strips, erosion and sediment controls, a stormwater management plan, an unobstructed flow channel from the river to the lake and limiting lawn chemicals.

Threatened and Endangered Plant and Animal Species

According to the DEP - Natural Diversity Database, there are no Federally listed Endangered Species or Connecticut "Species of Special Concern" on the site.

Archaeological Resources

The prehistoric rockshelter site with fair to good integrity should be preserved as an excellent example of Indian encampments. The rockshelter offers the Town an opportunity to conduct research in the future into prehistoric cultures adapting to the natural resources of the area. The stone ruins of a 19th-century mill with associated dams and races should be preserved as remnants of the Town's earlier industrial history. The mill ruins also offer an excellent opportunity to conduct scientific investigations and contribute to our knowledge of the Industrial Revolution in Connecticut. The series of stone walls are in good condition, and examples should be

preserved to maintain the historic landscape of the park. The Town should consider these 3 historic features in their plan for expanded recreational use of the site. The Office of State Archaeology is prepared to offer technical assistance to the Town of Monroe and its Parks and Recreation Commission in preserving the archaeological resources at Wolf Park Extension.

Planning Considerations

Land use in the vicinity is comprised of low density residential, agricultural and open space uses. The area is zoned for 1-, 2- and 3-acre residential lots. There is a general increase in residential development in Monroe. The Monroe Plan of Development designates Wolfe Park as the central park for active recreation. Acquiring connected open space areas and connecting Webb Mountain Park and Wolfe Park are goals defined in the Town Plan. The plans to develop Wolfe Park and Wolfe Park Extension are consistent with the Plan. Active recreational use is intended for the Cutlers Farm Road ballfields and swimming pool, the proposed beach and the open fields. The remainder of both parcels will be used for passive recreation.

Ant development in the Great Hollow Lake watershed will have environmental impacts to the site and lake. Development of the ballfields should proceed carefully to protect the lake from fertilizer-laden runoff. Active recreation should be balanced with passive recreation. The aesthetic quality of the park should be protected. The proposed parking lot threatens the vista from the ballfields. Extra landscaping or dispersing the parking area could preserve the vista. the hill could also be used for sledding, picnicking and as an amphitheater. Establishing a nature trail for the remainder of the site is recommended. Transportation and access should be considered. The railroad right-of-way should remain the primary access. Cutlers Farm Road should be preserved as a secondary access. The Town has an opportunity to link this park with other open space areas, expanding the recreational opportunities.

TABLE OF CONTENTS

ACKNOWLEDGMENTS ii

EXECUTIVE SUMMARY iii

LIST OF APPENDICES viii

LIST OF FIGURES viii

INTRODUCTION

Introduction 1

The ERT Process 2

NATURAL RESOURCE CHARACTERISTICS

Setting, Topography and Land Use 4

Geology 4

Recreational Potential from a Geological Perspective 10

Water Resources 11

Soil Resources 14

Sediment and Erosion Control 15

BIOLOGICAL RESOURCES

Forest Resources 18
Vegetation Types 18
Recommendations 18

Wildlife Considerations 19
Forest 21
The East Branch Pequonnock River and Wetland Areas 22
Open Field 23
Wildlife Habitat/Recreation Considerations 25

Fishery Resources 26
Site Description 26
Aquatic Resources 26
Impacts 27
Recommendations 28

Threatened and Endangered Plant and Animal Species 29

ARCHAEOLOGICAL RESOURCES

Archaeological Resources 30

LAND USE AND PLANNING CONSIDERATIONS

Planning Considerations 32
Existing Land Use and Trends 32
Review of Development Plans 32
Planning Issues 33
Planning Considerations and Recommendations 34

LIST OF APPENDICES

Appendix A: Soil Limitations Chart

Appendix B: Suitable Planting Materials for Wildlife Food and Cover

LIST OF FIGURES

1. Location of Study Site 3

2. Topography 6

3. Bedrock Geology 7

4. Surficial Geology 8

5. Watershed Boundary 13

6. Soils 16

7. Forest Stands 20

INTRODUCTION

INTRODUCTION

The Monroe Parks and Recreation Commission has requested that an environmental review be conducted on Wolfe Park Extension, a site proposed for recreational development. The site is located in southcentral Monroe. Access to the site is provided via Cutlers Farm Road.

In 1981, the ERT did a report on Wolfe Park. The Team suggested that the park expand their facilities for additional recreation. In 1989, a condominium development to the north of Wolfe Park donated the 90-acre site for recreation. The Town is interested in the natural resources of the site and the potential for active and passive recreational uses.

The primary goal of this ERT is to inventory the natural resources of the site and provide planning information. Specific objectives include:

1) Assess the topographic, hydrologic and geologic characteristics of the site, including the development limitations and opportunities;

2) Assess the impact of stormwater runoff from the condominium development and ball fields;

3) Determine the suitability of existing soils to support the recreational development;

4) Discuss soil erosion and sedimentation concerns;

5) Assess the impact of recreational development on the wetlands and watercourses;

6) Assess the impacts of the development on the wildlife and fisheries;

7) Assess archaeological concerns;

8) Assess planning and land use issues; and

9) Assess recreational issues.

THE ERT PROCESS

Through the efforts of the Monroe Parks and Recreation Commission and the King's Mark ERT, this environmental review and report was prepared for the Town. This report primarily provides a description of on-site natural resources and presents planning and land use guidelines. The review process consisted of 4 phases:

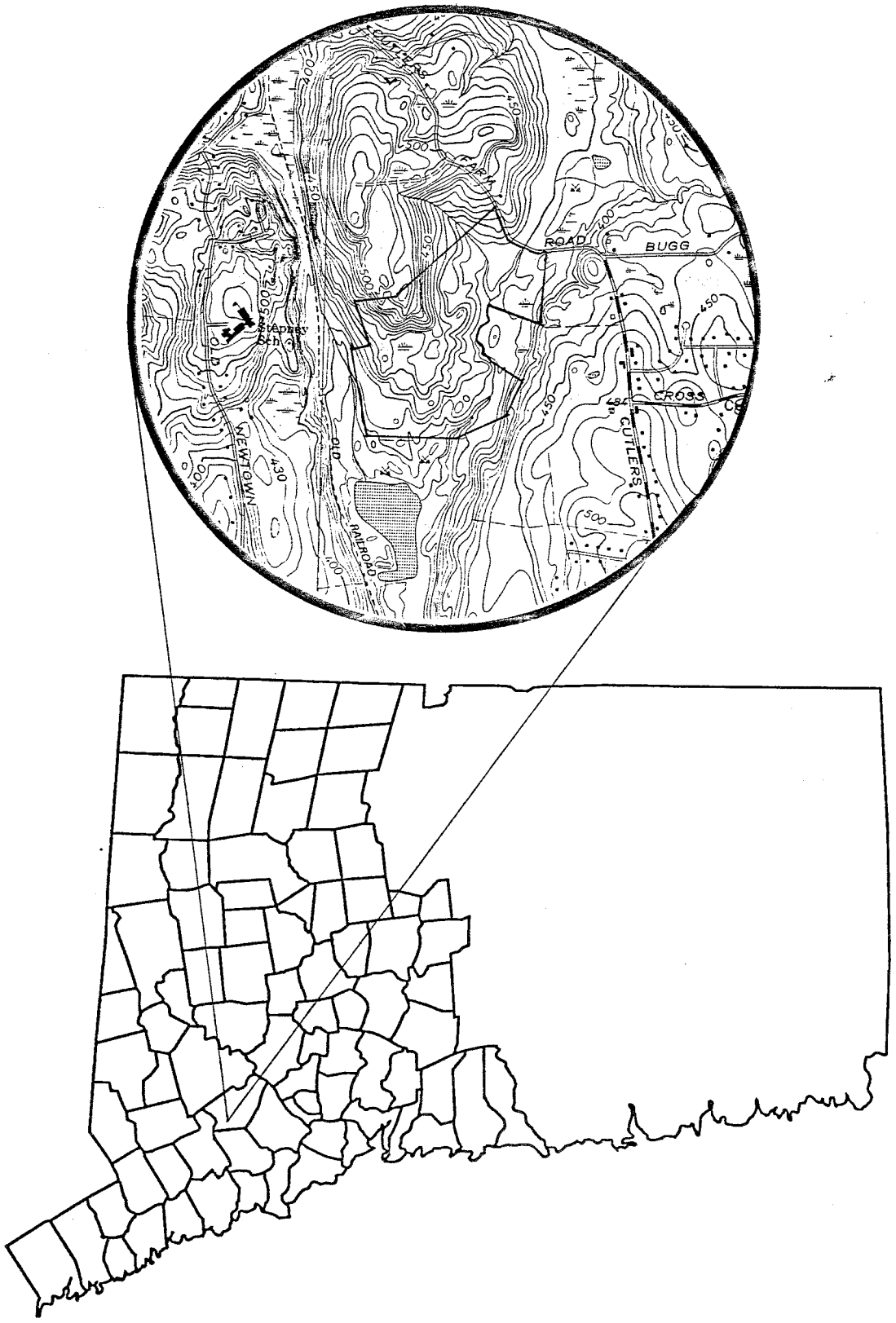
1) Inventory of the site's natural resources (collection of data);
2) Assessment of these resources (analysis of data);
3) Identification of resource problem areas; and
4) Presentation of planning and land use guidelines.

The data collection phase involved both literature and field research. The ERT field review took place on October 25, 1989. Field review and inspection of the proposed development site proved to be a most valuable component of this phase. The emphasis of the field review was on the exchange of ideas, concerns or alternatives. Mapped data or technical reports were also perused, and specific information concerning the site was collected. Being on-site also allowed Team members to check and confirm mapped information and identify other resources.

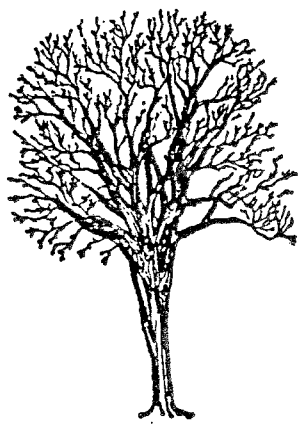
Once Team members had assimilated an adequate data base, they were able to analyze and interpret their findings. The results of this analysis enabled the Team members to arrive at an informed assessment of the site's natural resource development opportunities and limitations. Individual Team members then prepared and submitted their reports to the ERT Coordinator for compilation into the final ERT report.

Figure 1

LOCATION OF STUDY SITE



PHYSICAL CHARACTERISTICS



SETTING, TOPOGRAPHY AND LAND USE

The proposed Wolfe Park Extension site consists of 90 acres located southwest of the center of Monroe. The site abuts Wolfe Park on the south, wooded, undeveloped land on the east and west and a cluster residential development on the north. The East Branch Pequonnock River flows in a southerly direction through the eastern limits of the site. Except for the open fields in the southwest corner, most of the site is wooded. Several wood roads or pathways transect the site. One of these roads extends from Wolfe Park to Cutlers Farm Road, roughly paralleling the East Branch Pequonnock River.

The site is characterized mainly by gentle to moderate relief with the majority of land sloping towards the southern edge of the site and the Pequonnock River Valley. An area of steep, bedrock-controlled terrain occurs between the open field and the west side of the East Branch Pequonnock River floodplain. Flat land occurs on the open fields in the southwest corner (see Figure 2). These fields were probably used for hay land in the past.

Land-use near the site is characterized by single-family homes. East of the site is a Town recreation facility that includes a soccer field, baseball diamonds, tennis courts, basketball courts and a skating pond. North of Cutler Farm Road and on the east side of the East Branch Pequonnock River is an active sand and gravel removal operation.

GEOLOGY

According to the Bedrock Geologic Map of the Long Hill Quadrangle (W.P. Crowley, 1963-65) which encompasses the recently acquired land, the bedrock underlying the site is identified as the Collinsville Formation and is a continuation of

the bedrock unit underlying Wolfe Park (see Figure 3). The rock formation is generally described as gray and silvery medium- to coarse-grained schist and dark fine- to medium-grained amphibolite and hornblende gneiss. Refer to the 1981 Wolfe Park ERT report for more information.

Bedrock outcrops are widely spread, especially in the central parts. Soil mapping data suggests that bedrock is probably 10 feet or less in most places on the site. Subsurface exploration for on-site sewage disposal, which included numerous deep test holes on the site for a former residential subdivision, would verify the depth to the bedrock surface. The deep test hole data were not made available to Team members.

Town officials questioned whether or not outcrops exist in the Pequonnock River Valley and along the old wood road that parallels the River valley on the site. Hydrogeologic mapping data indicate that unconsolidated sand and gravel materials that may be as much as 59 feet thick were deposited in the river valley by the glacier. The presence of extremely stony soils that flank the west side of the river valley suggests that rock exposures observed near the Pequonnock River Valley are probably large boulders that are partially covered and not bedrock outcrops. In addition, no continuous outcrops were observed during the field review nor are they delineated on the bedrock or surficial geologic map for the segment of East Branch Pequonnock River on the site. Moving westward from the river, the bedrock surface is probably much closer to the ground surface (perhaps 10 feet or less along the old wood road), but this should be verified by back-hoe excavations. Deep test hole information for the former subdivision should be reviewed since standpipes were observed along the road. If bedrock was encountered, depth to the bedrock surface should have been logged.

An unconsolidated blanket of sediments derived from glacial action covers bedrock on the site, including both till and stratified drift (see Figure 4). Till, the

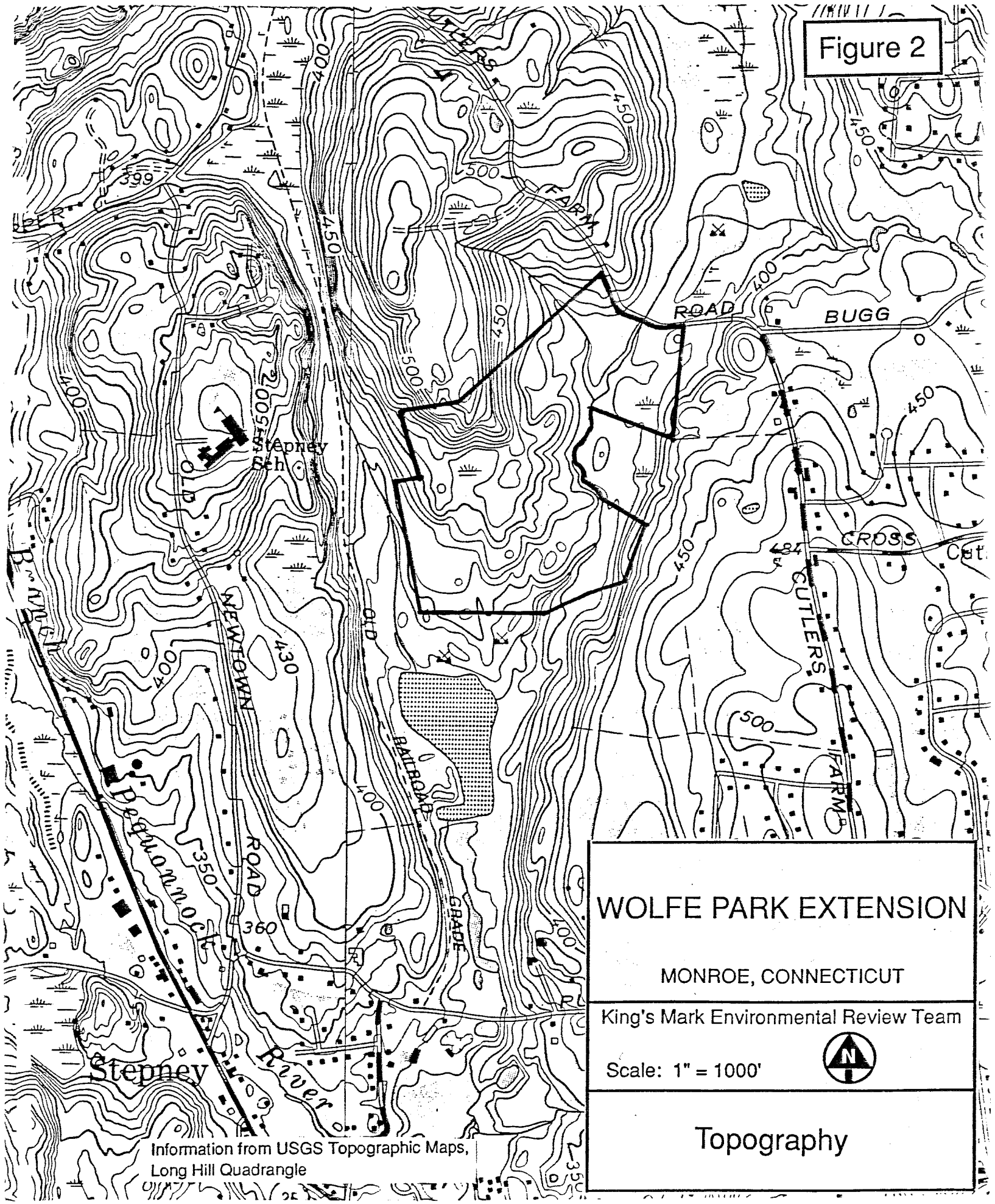


Figure 2
WOLFE PARK EXTENSION
MONROE, CONNECTICUT
King's Mark Environmental Review Team
Scale: 1" = 1000'
Topography
Information from USGS Topographic Maps,
Long Hill Quadrangle
Stepney
Stepney Sch
Pequonnock
River
NEWTOWN
ROAD
OLD
RAILROAD
GRADE
FARM
ROAD
BUGG
CROSS
CUTLERS
FARM
400
450
500
430
360
350
399

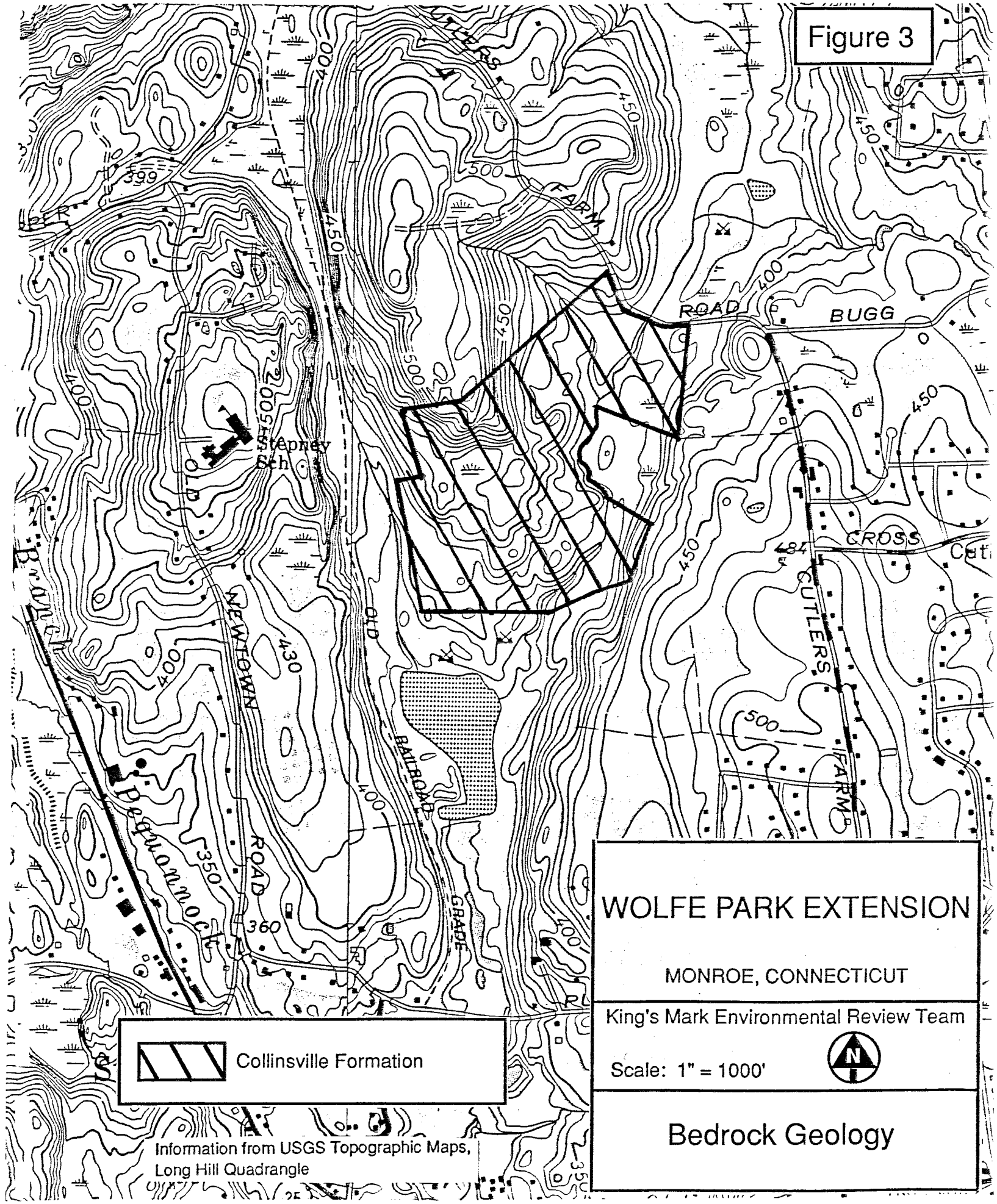


Figure 3
WOLFE PARK EXTENSION
MONROE, CONNECTICUT
King's Mark Environmental Review Team
Scale: 1" = 1000'
Bedrock Geology
Collinsville Formation
Information from USGS Topographic Maps,
Long Hill Quadrangle
FARM
ROAD
BUGG
CROSS
CUTLERS
FARM
Stepney
Sch
OLD
NEWTOWN
ROAD
Pequonnock
OLD
RAILROAD
GRADE
Brown
399
400
450
500
430
350
360
484

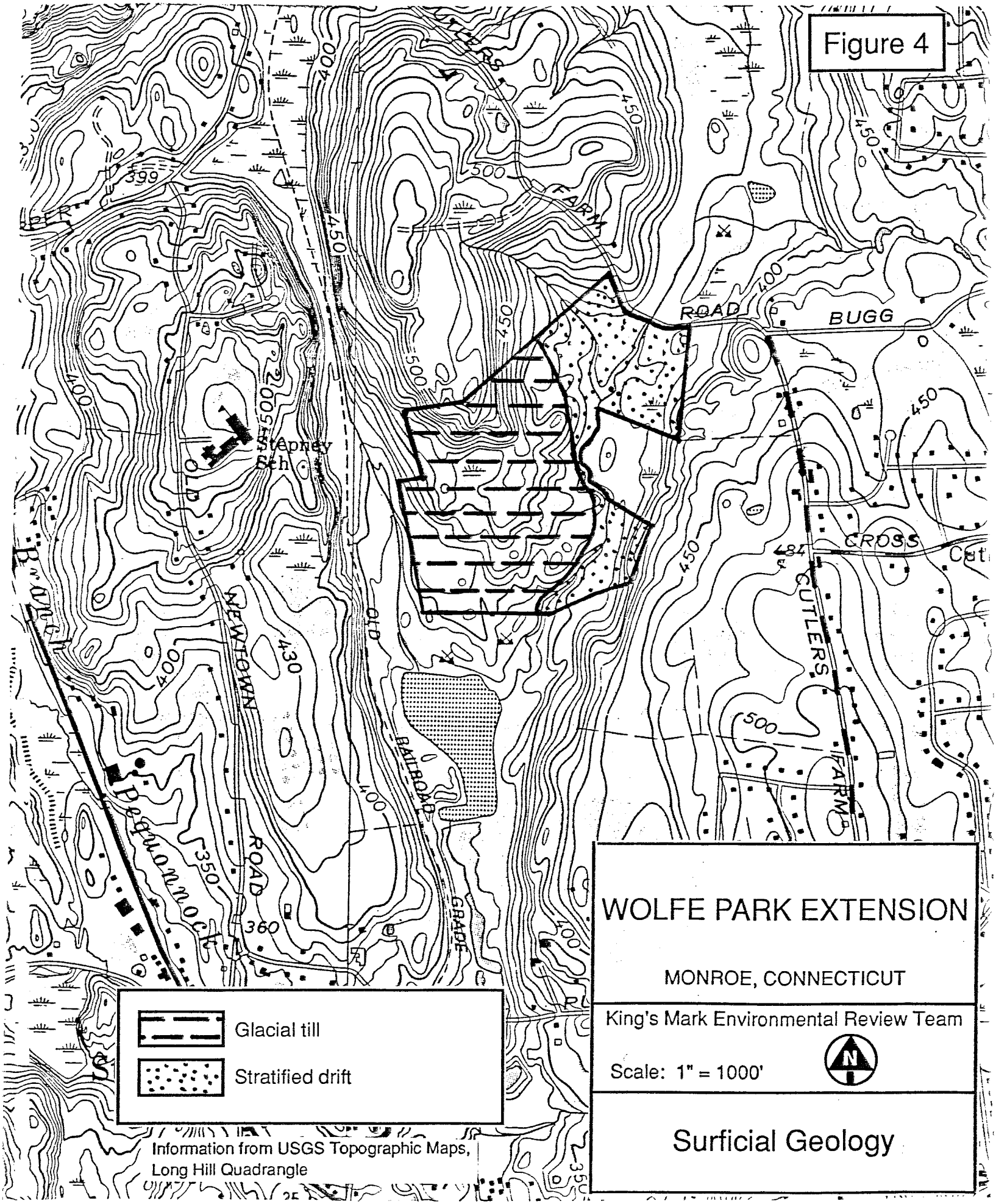


Figure 4
WOLFE PARK EXTENSION
MONROE, CONNECTICUT
King's Mark Environmental Review Team
Scale: 1" = 1000'
Surficial Geology
Glacial till
Stratified drift
Information from USGS Topographic Maps,
Long Hill Quadrangle
Stepney Sch
Old Newtown Road
Pequonnock River
Old Railroad Grade
Cutlers Farm Road
Bugg Road
Cross Cut
400
450
500
430
350
360
399

more abundant of the 2 types on the site, was deposited directly from glacier ice. Because glacier ice transports particles without regard to shape, size or other physical characteristics, most till consists of a heterogeneous mixture of rock debris, including rock particles and fragments ranging in size from clay to boulders. The texture of the majority of the till on the site is sandy, stony and loose.

Stratified drift, the other major surficial deposit found on the site, was deposited by glacial meltwater streams that emanated from the glacier ice. Because of the high energies of the glacial meltwater streams, stratified drift deposits generally consist of sand and gravel. The major area of stratified drift deposits on the site occurs in the eastern parts and occupies the Pequonnock River Valley. At the northern limits near Cutler Farm Road, the sand and gravel deposits may be as thick as 59 feet. Along the valley within the site, the deposits generally range between a few feet and 59 feet. A log of a test holes in the vicinity of the site revealed 2 feet of sand and gravel, 30 feet of sand, 1 foot of till and, finally, bedrock.

Sand and gravel deposits are generally highly permeable. Where these deposits are relatively thick (10-40 feet), saturated and close to surface waterbodies, they may be highly productive in terms of yielding water to a water supply well. The aquifer potential of the stratified drift deposits on the site is unknown. However, according to Ground Water Availability in Connecticut (Daniel Meade, 1978), the stratified drift deposits on the site are believed to be coarse-grained and have water saturated thicknesses of 10 feet or greater. These types of deposits are known or inferred to be capable of yielding moderate to very large amounts of water (50-2,000 gallons per minute) to individual wells.

The underlying bedrock is also potential aquifer (a geologic unit capable of yielding usable amounts of water to a well). The crystalline, metamorphic rock has potential for low to moderate yields, depending to some extent on the depth of any well drilled on the site. Refer to the 1981 Wolfe Park ERT report for more information.

RECREATIONAL POTENTIAL FROM A GEOLOGICAL PERSPECTIVE

Because of its diverse natural and topographic features, size and proximity to Wolfe Park, the site obviously has high potential for both active and passive recreational uses. In addition, the rockshelter associated with the ledgerock outcrop area in the central parts of the site may be important from an archaeological standpoint. Because of its shelter potential, size and proximity to the East Branch Pequonnock River, the rockshelter may have been used by Indians. The rockshelter was probably created by glacial action (plucking).

The 90-acre site includes several natural features of importance, including: 1) the Pequonnock River Valley; 2) the rockshelter area; and 3) inland wetlands. These natural features offer a high potential for environmental education as well as passive recreational uses such as hiking, cross country skiing, bird watching and picnicking. Some areas of the site may be limited due to steep slopes and wetness.

An area which appears to be suitable for active recreational uses (i.e., athletic fields and other type facilities) is located in the open field area in the southwest parts of the site. Sandy till deposits that are relatively thick (5-8 feet) cover this area. If desired, 1 or 2 ball fields and/or tennis courts could be constructed in this broad, flat area. Because of its proximity to Wolfe Park and because there are no homes in this area, there would be little public opposition to such a facility. This part of the site is also easily accessible from the existing Wolfe Park.

If sanitary facilities (toilets and showers) were needed for the site, a small- to medium-sized septic system could be easily constructed in several areas. The sandy, till soils are favorable for on-site sewage disposal, as long as the watertable and bedrock surfaces are deep enough. Detailed soil testing is needed to determine subsurface conditions. The soil testing conducted for a former subdivision on the site should be referenced.

WATER RESOURCES

Surface runoff and groundwater from the site can be divided into 2 drainage areas, both of which feed Great Hollow Lake to the south (see Figure 5). The majority of the site, which includes the central and eastern parts, flows to the East Branch Pequonnock River, the principal streamcourse on the site. The northwestern parts flow via drainageways to a wetland area in the western parts which routes the water to an unnamed streamcourse that empties into Great Hollow Lake. In total, the drainage area that supplies runoff to Great Hollow Lake consists of approximately 1,970 acres.

A review of air photos of the area dating back to 1934 indicates that the shape of the East Branch Pequonnock River within the site has changed very little, except for a distance of about 750 feet upstream from Great Hollow Lake. This segment of the river was probably altered during the creation of the Lake. Subtle (natural) changes can be expected to occur along the river channel over time due to storm events. Uncontrolled runoff that occurs from developments in the drainage area above Great Hollow Lake are expected to accelerate the potential for streambank erosion. The Town must review and enforce all erosion and sediment control plans for projects in the drainage area to prevent streambank erosion and siltation problems in Great Hollow Lake or East Branch Pequonnock River.

The surface waterbodies (East Branch Pequonnock River, unnamed streamcourse in the northern part and Great Hollow Lake) encompassed by the site have not been classified by the Department of Environmental Protection (DEP) and are considered by default to be Class A water resources. Class A resources may be suitable for drinking, recreational or other uses and may be subject to absolute restrictions on the discharge of pollutants, although certain discharges may be

allowed. Groundwater beneath the site is classified by the DEP as GA, which means that it is suitable for private drinking water supplies without treatment.

Efforts should be made to protect the surface and groundwater resources from potential contaminants due to recreational development of the site. This may include fertilizers used on ballfields and lawn areas, on-site sewage disposal systems for sanitary facilities, sand from parking lots and roads and eroding hiking trails.

A detention basin, which would be constructed to maintain post-development flows for a cluster residential subdivision north of the site, is proposed for the wetland/intermittent streamcourse corridor that is tributary to East Branch Pequonnock River in the northern parts. In addition to controlling post-development runoff increases, the detention basin may serve a sediment retention function. As a result, from time to time, silt or sand that builds up in the basin must be removed, otherwise the basin will lose its storage capabilities for runoff increases. Failure to maintain the basin will allow unwanted sediment to reach East Branch Pequonnock River and Great Hollow Lake. An access way should be made available to the detention site and a determination made as to responsibility for maintenance (Town or Homeowner Association). Also, since this area may have heavy pedestrian traffic, a fence might be constructed to protect the detention area, especially if it is potentially dangerous (i.e., deep water, steep sides, vertical drops, etc.).

A flood insurance rate map has been prepared for the Town of Monroe by the Federal Emergency Management Agency. According to this map, the East Branch Pequonnock River on the site is paralleled by a Zone A (area of 100-year flood). The Zone A also parallels a part of the unnamed streamcourse in the north parts (approximately half-way from its point of outflow to East Branch Pequonnock River). The Zone A boundary ranges from approximately 60 to 310 feet wide on the site. A 100-year flood is a flood with a 1 chance in 100 or 1% chance that it will happen in any year. This does not mean that a flood of this size will occur only once in a 100 years.


Figure 5
Portion of site that drains to the unnamed streamcourse that feeds the west side of Great Hollow Lake
Portion of site that drains to East Branch Pequonnock River
Watercourses showing direction of flow
WOLFE PARK EXTENSION
MONROE, CONNECTICUT
King's Mark Environmental Review Team
Scale: 1" = 1000'
N
Watershed Boundary
Information from USGS Topographic Maps, Long Hill Quadrangle
FARM
ROAD
BUGG
CROSS
CUTLERS
FARM
NEWTOWN
OLD
Stepney Sch
450
500
400
430

The probability of occurrence remains the same each year regardless of what happened the year before. Because of their susceptibility for flooding and wetness, the Zone A areas hold low potential for active recreational development.

SOIL RESOURCES

In general, the site is excellently suited for recreation. A number of different soil types exist within the site. They are a continuation of the soils in Wolfe Park as outlined in the 1981 Wolfe Park ERT report (see Figure 6).

Upland soils consist of very rocky Charlton-Hollis fine sandy loams with slopes of 3-15% (CrC); Charlton extremely stony fine sandy loams with slopes ranging from 3-15% (CnC) and 15-35% (CnD); Charlton very stony fine sandy loams in the 3-8% slope range (ChB) and Charlton fine sandy loams of 3-8% slopes (CfB).

Glacial outwash plain and terrace soils are the Agawam fine sandy loams in the 3-8% slope range (AfB) and the Hinckley gravelly sandy loam with slopes of 3-8% (HkB).

Wetland soils are the Carlisle Muck (Ce), Saco silt loam (Sb) and the Ridgebury, Leicester and Whitman extremely fine sandy loam.

The Charlton series consists of well-drained soils that formed in glacial till. The Hollis series consists of excessively drained soils that formed in a thin mantle of glacial till. The Agawam series consists of well-drained soils that formed in a mantle over stratified sand and gravel. The Hinckley series consists of excessively drained soils formed in water sorted materials. The Carlisle consists of very poorly drained soils that formed in deep organic material. The Saco series consists of very poorly drained soils that formed in alluvial (stream-deposited) sediments. The Ridgebury, Leicester and Whitman soils consist of poorly to very poorly drained soils formed in glacial till.

All planned passive recreational activities such as hiking trails are well-suited for all upland soils. Existing log roads can be maintained as trails, and more trails can be created as needed. When impossible to avoid steep slopes, consider using water breaks to reduce potential erosion from the trail. Trails in and around the wetlands will need special planning to reduce potentially harmful impacts. All trails should follow the slope contours as much as possible.

Planned active recreation should be kept within the CfB soils on the western section of the site. The location and the soil suitability (well-drained and free of stones) of the recreation area make it an ideal site for playgrounds and athletic fields. This area should be maintained as open space by periodic mowing until decisions are made about its use. This will also serve to diversify wildlife habitat.

Appendix A contains a table relating soils to recreational development limitations.

SEDIMENT AND EROSION CONTROL

For existing and planned trails where steep slopes encourage erosion, consider installing water bars, outletted safely to reduce the impact of increased foot traffic. Where trails cross streams or watercourses, consider bridging the crossings.

Lightly used trails can be protected from erosion by seeding creeping red fescue. Heavily used trails nay need bark or wood chips to deter erosion and blend in with the surroundings.

Newly constructed trails should maintain a general grade of 4% or less. Sustained grades should not exceed 8%. Trail(s) near streams and wetlands should maintain a buffer area to reduce any potential negative impacts.

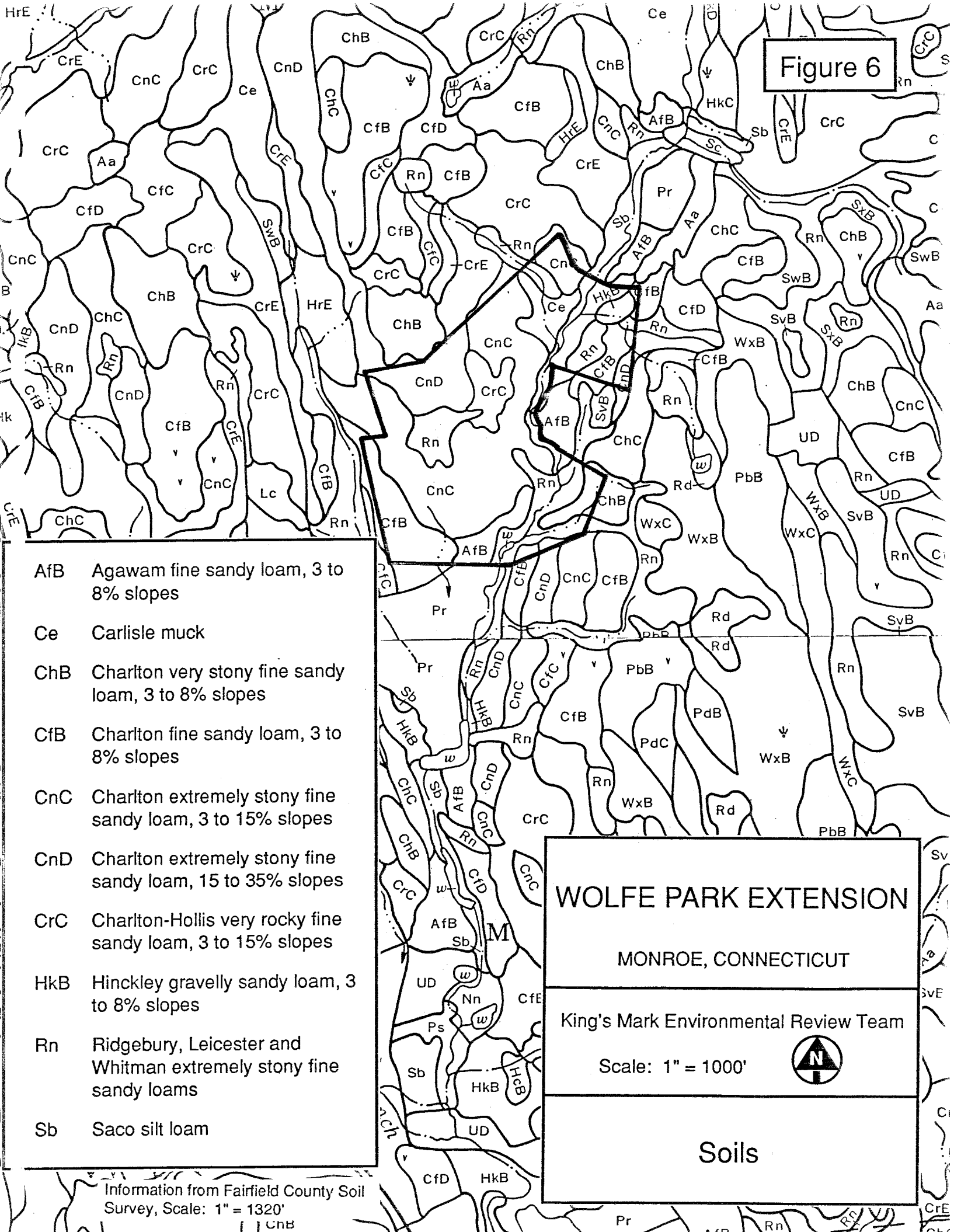


Figure 6
AfB Agawam fine sandy loam, 3 to 8% slopes
Ce Carlisle muck
ChB Charlton very stony fine sandy loam, 3 to 8% slopes
CfB Charlton fine sandy loam, 3 to 8% slopes
CnC Charlton extremely stony fine sandy loam, 3 to 15% slopes
CnD Charlton extremely stony fine sandy loam, 15 to 35% slopes
CrC Charlton-Hollis very rocky fine sandy loam, 3 to 15% slopes
HkB Hinckley gravelly sandy loam, 3 to 8% slopes
Rn Ridgebury, Leicester and Whitman extremely stony fine sandy loams
Sb Saco silt loam
Information from Fairfield County Soil Survey, Scale: 1" = 1320'
WOLFE PARK EXTENSION
MONROE, CONNECTICUT
King's Mark Environmental Review Team
Scale: 1" = 1000'
N
Soils

As with any construction, erosion and sediment control measures should be planned, reviewed and installed prior to construction. The Fairfield County Soil and Water Conservation District (743-5453) will provide assistance in planning and reviewing erosion and sediment controls upon request.

An important consideration, often overlooked, is maintenance. Periodically take a critical look at the trail(s) and open areas and make the needed repair(s) to prevent any further damage. Maintenance should also address safety concerns such as downed trees and limbs and other assorted hazards.

This information supplements the 1981 Wolfe Park ERT report. Concerns addressed in the original report are still valid.

BIOLOGICAL RESOURCES

FOREST RESOURCES

Vegetation Types

The Wolfe Park Extension site consists primarily of upland forests, 80-100 years old, dominated by black oak, hickory, black birch and beech sawtimber, with mostly black birch, red maple and beech saplings in the understory. Red cedars are scattered throughout, reflecting agricultural uses in the past.

Small areas of hardwood swamp, composed of red maple sawtimber and poletimber, are found along the East Branch Pequonnock River, in the northern portion west of the woods road and at the base of the knoll in the western part of the parcel.

East of the river and north of the lake are several open fields, consisting of herbaceous perennials and grasses. There are roughly 4 acres of reverting fields, composed of a mixture of herbaceous perennials and encroaching oak and birch saplings, scattered around the tract. Red cedars dominate 1 of these areas (see Figure 7).

Recommendations

The upland oak forest is declining in vigor and health because of age, overcrowding, insects and disease. A thinning will benefit the forest by removing lower quality, overmature and unhealthy trees. At the same time, the remaining trees will have access to more sunlight, rainfall and soil nutrients and will grow better. In areas where there is a thick growth of saplings in the understory, the overtopping trees could be removed to allow the saplings to become the next forest to benefit future generations.

Mast (acorns and nuts eaten by wildlife) is produced by oak, hickory and beech trees. There is an ample supply of mast-producing trees now. However, the numbers will decrease if no forest management occurs. Oak and hickory seedlings

need open sunlight to grow and thrive. If openings are not made, only tree seedlings that can grow in the shade will survive. Most "shade tolerant" trees such as maples and birches have less value for food production for wildlife than do the oaks and hickories.

If the Town wishes to improve wildlife habitat and maintain a productive forest, then a timber harvest may be called for, based on a more detailed forest inventory than can be provided in the scope of this report.

A consulting forester can perform this inventory and write a forest management plan based on the condition of the forest and the objectives of the Town. The forester could supervise any forestry practices which might be recommended in the management plan such as thinnings, plantings or commercial timber harvests.

Wolfe Park Extension combined with Wolfe Park should be enough land to make a harvest commercially feasible. Revenues could be used to improve the road and trail networks, mark the boundaries, and make other improvements to the park. Revenues would also cover the costs of hiring a consulting forester.

Recreational activities such as hiking and cross-country skiing can be compatible with wildlife and forest management. In fact this is accomplished in the State Forests routinely.

WILDLIFE CONSIDERATIONS

This 90-acre site, known as Wolfe Park Extension, is a very desirable addition of various types of wildlife habitat that should only serve to complement Wolfe Park. The East Branch Pequonnock River runs through the site and on into the man-made lake within Wolfe Park. In addition to this riparian habitat, the site contains mixed hardwood forest, old fields, open fields and deciduous wetland habitat.

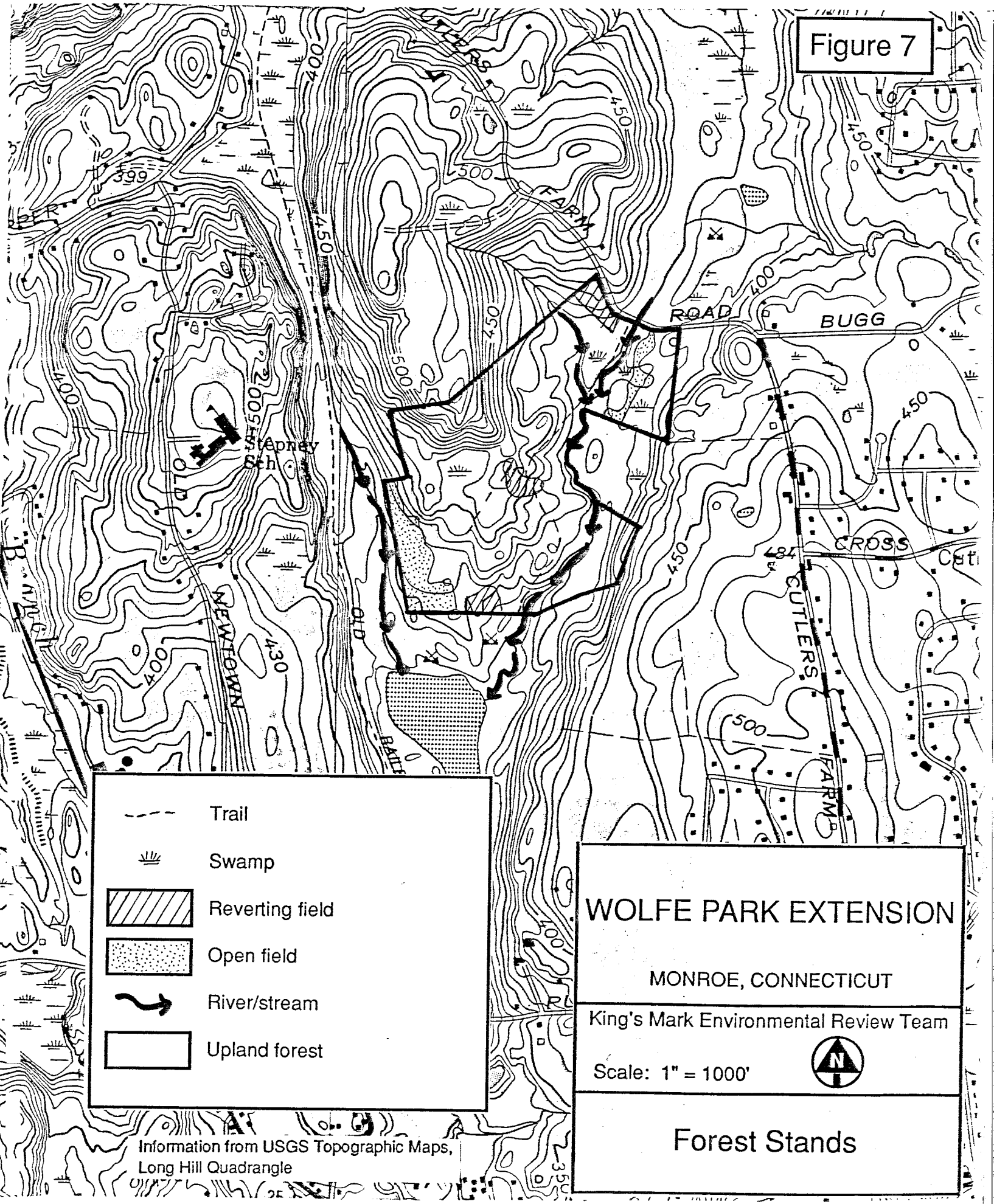


Figure 7
Trail
Swamp
Reverting field
Open field
River/stream
Upland forest
WOLFE PARK EXTENSION
MONROE, CONNECTICUT
King's Mark Environmental Review Team
Scale: 1" = 1000'
N
Forest Stands
Information from USGS Topographic Maps,
Long Hill Quadrangle
BUGG
ROAD
FARM
CROSS
CUTLERS
NEWTOWN
OLD
Stepney
Sch

Wildlife habitat is the complex of vegetative and physical characteristics that provide for all the requirements of wildlife, including food, shelter, resting, nesting and escape cover, water and space. Generally, the greater the habitat diversity and degree of interspersion of various habitat types, the greater the variety of wildlife there is using an area. The site contains good wildlife habitat because of the diversity of habitats found there. The site's value to wildlife is enhanced because the East Branch Pequonnock River and its associated wetlands is desirable habitat for a variety of wildlife species.

A wide variety of wildlife species are expected to utilize the site to serve all their needs, while many more species find it a place to meet some requirements. These species include deer, ruffed grouse, weasel, raccoon, beaver, otter, fox, coyote, hawks, owls, catbirds, sparrows, juncos, chickadees, and a variety of reptiles and amphibians.

Forest

The mixed hardwood forest contains oak, red maple, cherry, black birch, beech and ash, as well as many other species. Areas of red cedar and blueberry bushes are found in a few spots, but are being shaded out by surrounding trees. The forest provides cover, nesting, roosting and denning sites for a wide array of wildlife. In addition, various tree and shrub species provide valuable food in the form of mast, fruits, catkins, buds and twigs.

Oak trees, along with the variety of other nut bearing trees such as hickory, provide mast. Mast is an important food source for many types of wildlife, especially during the fall and winter when other food sources are not available and/or are in short supply.

Much of the forested habitat is characterized by a thick growth of pole-sized timber interspersed with larger sawtimber-sized trees. These larger sawtimber-sized trees such as the oaks and hickory provide some mast for use by wildlife. The

pole-sized timber is the least useful for wildlife, but obviously is necessary in order to have mature timber in the future. However, most of this pole-sized timber is cherry and black birch, which has limited usefulness for wildlife in a forest setting. Creating small openings to encourage regeneration of oaks will benefit wildlife in 2 ways: 1) these openings will provide for mast production in the future and 2) these openings will be brushy for the first few years before the tree saplings (hopefully oak saplings) take over. These brushy openings provide cover and food for wildlife. Conducting thinnings in other areas (based on a forester's recommendation) will encourage greater mast production in oaks and hickories already producing mast by eliminating some of the competition.

The snag trees (dead trees) on the site provide insects for a variety of wildlife such as woodpeckers, chickadees and other insect-eating birds. The den trees (trees with holes) scattered throughout the site provide cavities for nesting owls, swallows, etc. The cavities also provide denning sites for raccoons, etc.

Recommendations:

1) Create small openings in the forested area from 1/2 to 2 acres in size. These openings should not exceed 300 feet in width.

2) Conduct thinnings based on a forester's recommendation to enhance growth of mast producing trees already mature.

3) Cut around the small patches of red cedar and blueberry so that these species which are shade intolerant will flourish. The red cedar can provide important year-round cover for wildlife. Maintaining small pockets of red cedar will benefit wildlife by providing evergreen cover. The blueberry bushes won't produce fruit unless fully exposed to sunlight. Increasing fruit production will benefit wildlife.

The East Branch Pequonnock River and Wetland Areas

The East Branch Pequonnock River and the other areas of deciduous wetlands on the parcel offer good to excellent wildlife habitat. The riparian habitat offered by the river is characterized by a slow moving stream in the upper reaches of the parcel

with a thick growth of shrubs and trees growing alongside. As the river nears the lake, it is characterized by faster moving water due to elevation changes and becomes much more rocky and ledgy. This riparian zone and the other wetlands serve as habitat for a variety of reptiles, amphibians, otter, mink, raccoon and a variety of birds. In addition to providing habitat, the brook system provides a travel corridor for a variety of species, especially predators such as fox, coyote and raccoon. Winter travel is made easier on the frozen waterway.

Recommendations:

1) Ideally, a buffer strip of vegetation should be maintained along the entire length of the river to preserve its value to wildlife.

2) Any crossing of the river should be constructed to minimize erosion into the river.

3) The road crossing through the river should be eliminated to prevent any siltation into the river.

Open Field

There are several scattered areas of old field and several open fields which have not been cut recently and are growing in with herbaceous plants and various grasses. The open fields contain a variety of grass and herbaceous species which provide food in the form of seeds and forage for many species. Ground nesting species such as the meadow lark and field sparrow use open grassy areas for nesting.

The old fields provide early successional stage habitat, an important type of habitat because it contains a variety of plant communities, including grass, herbaceous plants, shrubs and young trees. The abundant growth of a variety of berry-producing shrubs such as blueberry and honeysuckle and trees such as cherry provide abundant cover and a food source for a variety of wildlife.

Many species of small mammals, including mice and voles, use open fields and reverting old fields. Birds feed in these areas because of the high seed production from the herbaceous plants and grasses. Insect production tends to be higher in grassy/herbaceous openings, making these areas attractive to birds and mammals that feed on insects. These areas are also used as hunting grounds by species such as fox, coyote and birds of prey which consume small mammals.

Open and reverting old field habitat are important types of habitat. This habitat type is often lacking or diminished in supply, partly because they are usually the first habitat type to be developed.

These areas not only increase the overall diversity of the site, they also increase the "edge" or "edge effect." Edge effect s the phenomena that occurs where vegetational types meet with a high degree of interspersion, and vegetational diversity or richness is achieved. Because of this phenomena, the needs of a wide variety of wildlife can best be met.

Recommendations:

1) The open field areas should be maintained in this grassy/herbaceous state by periodic mowing. Mowing late in the year every other year should be enough to prevent the invasion of woody growth from these areas.

2) The old field areas should be maintained also by periodic mowing. Mowing every 2-3 years should be effective. Valuable tree and shrubs species should be left and not mowed or cut down. Species that produce fruits and berries should be favored. Trees which will grow to dominate the old field and shade out other trees (i.e., oaks) should be removed before they get to large.

3) In order to maintain the size of these openings and even improve their value to wildlife, they could be cut back around the perimeter. If larger trees were cut down, more light could reach the ground and stimulate the growth of shrubs. This would provide additional food and cover and maintain or increase the size of the opening. Tops and branches from the trees not removed could be used to construct brush piles for wildlife.

Wildlife Habitat/Recreation Considerations

Adding Wolfe Park Extension to Wolfe Park will only serve to compliment the park's potential for multiple use by providing for more area for recreation and wildlife habitat protection. As stated in the 1981 Wolfe Park ERT report, it must be recognized that "wildlife impacts will result from increased land usage; shy wildlife species will be reluctant to nest or utilize areas with a noticeable human presence." This will obviously hold true for Wolfe Park Extension. The active recreational facilities should be concentrated on a limited area, not spread out over the entire acreage. Limiting development of the park to the current areas and the proposed west and north side of the lake will concentrate active recreation in these areas, leaving the northern and central portion relatively undeveloped. Maintaining areas of habitat that are not disjointed, but instead connected, is preferable. Obviously the proposed development at the northern end of the lake will have some impact on the wildlife using the site. However, leaving buffer areas between the active recreation sites and the wildlife habitat will reduce impacts.

Extending the trail through the site represents minimal impact to wildlife habitat. If wildlife habitat management practices are implemented, interpretive sites along the trail could be developed explaining the various habitat management practices. Use of the trail for cross-country skiing in the winter also represents minimal impact to wildlife habitat and provides for increased recreation on this parcel compatible with wildlife requirements.

Prevent erosion from the existing road and any new trails from entering the East Branch Pequonnock River. Eliminate the road crossing the river or replace it with a bridge, if use of the road is to be continued.

FISHERIES RESOURCES

Site Description

The salient aquatic features of Wolfe Park Extension are the East Branch Pequonnock River and Great Hollow Lake. The East Branch Pequonnock River is a coldwater stream averaging 15 feet in width and 2 feet in depth. Stream flows are predominated by shallow riffle interspersed by slightly deeper moving pool. Stream substrate of the riffle is composed of small boulder, cobble, gravel and coarse sand. Substrate of the pooled areas is similar with accumulations of sand/silt fines. Riparian vegetation includes mature hardwoods and woody shrubs. The stream has Class A surface waters. Designated uses of this water class are potential drinking water supply, fish and wildlife habitat, recreational use, agricultural and industrial supply.

Great Hollow Lake is approximately 16 acres in surface area, has reported maximum depth of 20 feet and an average depth of 12.5 feet. The lake is artificial in origin, resulting from gravel excavations. The lake is fed by the East Branch Pequonnock River, an unnamed stream, bottom springs and surface runoff. The lake substrate is reportedly boulder, cobble, gravel, coarse sand and sand/silt fines. The lake supports limited growths of submergent and emergent aquatic vegetation and can be considered as oligotrophic. The lake waters are Class A surface waters. Shoreline development is non-existent.

Aquatic Resources

The fishery resource of the East Branch Pequonnock River, although never formally investigated, is anticipated to be composed of brook trout, brown trout, blacknose dace, longnose dace, common shiner, tessellated darter and white sucker. The DEP Bureau of Fisheries does not currently manage the East Branch Pequonnock River.

The fishery resource of Great Hollow Lake has never been formally investigated nor are there any records of fish liberations. Anticipated fish species include largemouth bass, sunfish species, yellow perch, chain pickerel and brown bullhead. The DEP Bureau of Fisheries, in conjunction with the Town of Monroe, manages Great Hollow Lake for coldwater fish species. A total of 300 adult brown trout and 310 adult rainbow trout are stocked annually into Great Hollow Lake for sportfishing. Water quality within the lake allows fish escaping angling mortality to "holdover" or survive within the lake throughout the year or for several years.

Impacts

Should conditions within the immediate watershed surrounding the East Branch Pequonnock River and Great Hollow Lake remain as at present, direct impacts to the waterbodies will be minimal or non-existent.

Development within the East Branch Pequonnock River watershed can expect to have the following potential impacts, most notably occurring to Great Hollow Lake:

1) During construction, the potential for soil erosion and sedimentation through increased surface runoff from unvegetated zones can cause of waterbody degradation. Nutrients transported by sediments can accelerate the aquatic plant growth in shallow water areas of the lake, adversely impacting the resident fishery population.

2) Surface drainage from roads and driveways may allow road salts, sands and oils to quickly enter the waterbodies, which results in water quality and in-lake habitat degradation.

3) Nutrients leached from lawn fertilizers stimulate excessive aquatic plant growth. Introduction of lawn chemicals may result in "fish kills" and water quality degradation.

4) Reductions water flow or any water quality problems and habitat degradation within either the East Branch Pequonnock River or Great Hollow Lake due to sedimentation, road and stormwater drainage, lawn chemicals and fertilizers will eventually be observed in downstream areas.

Recommendations

The impact of development can be minimized by implementing the following precautionary measures:

1) For areas not needed for water-based recreation, maintain at the **minimum** a 150-foot open space buffer zone along the shoreline of the East Branch Pequonnock River and Great Hollow Lake. Construction or alteration of riparian habitat should not take place within this zone. The buffer zone should be widened in areas of steeper terrain and those areas deemed critical habitat.

2) A comprehensive erosion and sediment control plan should be submitted and installed prior to the start of any construction and maintained through all construction phases. Mitigative measures should include, but not be limited to, detention basins, catch basins, silt fences and haybales. Surface runoff must not be allowed to directly enter either the East Branch Pequonnock River or Great Hollow Lake. Once construction is initiated, officials from the Town of Monroe should regularly police any development to ensure that all erosion and sediment controls are properly emplaced and are being regularly maintained.

3) An effective stormwater management plan should be designed and implemented for any and all development within the immediate watershed. Stormwaters should not directly enter either the East Branch Pequonnock River or Great Hollow Lake.

4) Limit liming, fertilizing and the introduction of chemicals to manicured lawns close to either the East Branch Pequonnock River or Great Hollow Lake. This restriction will minimize the amount of additional nutrients to the watershed.

5) Control the severe erosion of the East Branch Pequonnock River streambanks. This can be accomplished by the placement of rip-rap (angular boulders) on banks prone to erosion.

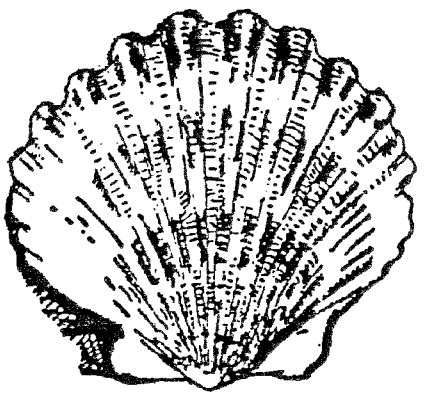
6) Maintain a well defined low-flow channel from the lake into the stream proper. This will provide unobstructed fish passage from the lake into the stream primarily for trout species. This can promote the natural reproduction of this species within the stream.

THREATENED AND ENDANGERED PLANT AND ANIMAL SPECIES

According to the Natural Diversity Data Base, there are no known extant populations of Federally Endangered and Threatened species or Connecticut "Species of Special Concern" occurring at the site.

Natural Diversity Data Base information includes all information regarding critical biologic resources available to us at the time of the request. This information is a compilation of data collected over the years by the Natural Resources Center's Geological and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultation with the Data Base should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as enhance existing data. New information is incorporated into the Data Base as it becomes available.

ARCHAEOLOGICAL RESOURCES



ARCHAEOLOGICAL RESOURCES

A field review of the Wolfe Park Extension site located a number cultural features that should be considered by the Town of Monroe in their recreational development plan. Cultural resources include an prehistoric Indian rockshelter site, a late-19th century mill ruin and a series of stone fences throughout the area.

The central outcropping of bedrock is an excellent example of prehistoric Indian adaptation and settlement. The outcropping has produced a natural ledge. Ledges were often used by Native Americans as shelters and areas of encampment. This ledge with the natural resources of the East Branch Pequonnock River would have certainly been utilized in prehistoric times. No excavations were conducted during field review. Only minor disturbances were noted for the area under the ledge. Therefore, the site should maintain much of its archaeological integrity. Controlled, scientific excavations should reveal considerable information on the past occupants of the rockshelter. The site should be preserved from vandalism or development as an important cultural resource for the Town of Monroe. Test excavations can be conducted along with a review of artifacts previously collected to determine the temporal and cultural framework of the site.

A late-19th century mill ruin with associated dams and races was located along the eastern slope of the site. Races were artificially constructed channels that directed the water to and away from the turning waterwheel or turbine. These channels are clearly visible along with the stone foundations of the mill itself. This historic feature should be maintained by the Park and Recreation Commission as an example of the industrial history of the Town. Research into industrial technology during the 19th-century can be obtained by an archaeological investigation at the mill site.

The stone walls that stretch through the site are characteristic of late-18th and 19th century structures. Stone walls became the standard fencing material as a result of plowing activities unearthing stones with every cut of the soil. Stone walls in the area probably represent pasture fields and property markers. It is not necessary to maintain every stone wall within the site. However, sections of walling should be maintained as historic examples of dividing the landscape. The conditions of the stone walls vary. In general, they are in very good condition and have been disturbed very little since their original construction in the last century.

In summary, 3 historic features of significance were located on the site. The Monroe Parks and Recreation Commission should consider these features in their plan for expanded recreational use of the site. The prehistoric rockshelter site with fair to good integrity should be preserved as an excellent example of Indian encampments. The rockshelter offers the Town an opportunity to conduct research in the future into prehistoric cultures adapting to the natural resources of the area. The stone ruins of a 19th-century mill with associated dams and races should be preserved as remnants of the Town's earlier industrial history. The mill ruins also offer an excellent opportunity to conduct scientific investigations and contribute to our knowledge of the Industrial Revolution in Connecticut. The series of stone walls are in good condition, and examples should be preserved to maintain the historic landscape of the park. Not all of the walls need to be maintained. The Office of State Archaeology is prepared to offer technical assistance to the Town of Monroe and its Parks and Recreation Commission in preserving the archaeological resources at Wolf Park Extension.

LAND USE AND PLANNING CONSIDERATIONS

PLANNING CONSIDERATIONS

Existing Land Use and Trends

Land use in the area surrounding the site is comprised of low density residential uses, agricultural use and open space. Wolfe Park borders the southern 2/3 of the site. The remainder of the site is bordered by a cluster housing development on the north, Cutler's Farm Road on the northeast and a residential subdivision also on the northeast, off Cutler's Farm Road. Land in the area is zoned for 1-, 2- and 3-acre residential use, with some instances of cluster residential zoning.

Recent changes in the surrounding area reflect the general increase in land development activity throughout Monroe. Comparison of current land use with past aerial photos and land use maps shows a trend of encroaching residential development upon most boundaries of Wolfe Park. This pattern will likely continue, as State projections predict Monroe will be one of the fastest growing Towns in the region. The 1988 population is estimated at 17,520 with a projected increase of 28% to 22,500 by 2010.

Review of Development Plans

The Plan of Development for the Town of Monroe prescribes several objectives that apply to development of this site and Wolfe Park. Specifically, Wolfe Park is designated as the central park for most active recreation uses in Monroe. The Town also has a goal of acquiring open space lands in a coherent, connected and useful fashion. A related objective states that Wolfe Park and Webb Mountain Park should be connected through an open space trail. Another objective states that railroad rights-of-way should be pursued for ownership by the Town. Monroe also has a stated objective to protect the natural boundaries of Great Hollow Lake.

Review of development plans and site designs and discussions with park officials indicate that existing plans to develop Wolfe Park are generally in

accordance with the Town Plan of Development objectives. Wolfe Park contains 3 areas which are intended for active recreation use: 1) Cutlers Farm Road ballfields and swimming pool; 2) the swimming beach facilities; and 3) open fields in the southern portion of the park. The remainder of the park will remain as primarily undeveloped open space with passive recreation offerings. These plans consider the southern portion of Wolfe Park Extension. Preliminary plans are to develop the open fields immediately north of the swimming beach into a series of athletic fields. The remainder of the 90-acre Wolfe Park Extension site will remain primarily open space. Previous plans for the southern part of Wolfe Park Extension indicated development for camping and picnic use, instead of athletic fields. The 1981 Wolfe Park ERT report lays out a good base of planning and specific recreational guidelines which remain valid today. The recommendations for active and passive recreational use in the park should be considered as they apply to the site.

Planning Issues

Several planning issues should be considered as the site is developed for recreation and open space use. These issues should be considered with respect to the site and with respect to adjoining Wolfe Park and surrounding development.

The impact of on-site development as it affects the environmental quality of the site and Wolfe Park must be considered. Off-site development will also have a significant impact on the environmental quality of Wolfe Park. The aesthetic quality of the park should be protected from on- and off-site development. Also open space use should be properly protected and balanced with active recreation development. Transportation access and impacts must be considered in this park development. Linking Wolfe Park with proposed Town open space trails and railroad rights-of-way to further Town and regional recreation and open space goals should be considered.

Planning Considerations and Recommendation

A major consideration in the site development is the impact on environmental quality resulting from park development. The East Branch Pequonnock River watershed, which drains from the north into Great Hollow Lake, is an area of concern. Intensive development of lands above the lake will impact the water quality of the Town's swimming area. Existing plans to retain the majority of the site in its natural state with passive recreation use support the environmental quality of the lands and the watershed. However, proposed plans to develop athletic fields just north of the swimming beach should be pursued with caution to protect the lake from fertilizer-laden runoff from the ballfields.

Another consideration involves the proper balancing of active recreation uses with passive use of the open space areas. This issue is applicable to all of Wolfe Park, as care should be taken to protect the natural open space from encroachment by active recreation uses. Assuming the beach becomes an intensive active use area, the open field development just north of the swimming beach will be a transition area between the open space of the site and the swimming beach area. Pedestrian access to the open fields should come from the same access area as the swimming beach access. Aside from an emergency and maintenance vehicle access route, there should be no roadway provided to the upper fields.

The proposed development of a large parking lot immediately below the open fields threatens the aesthetic value of the vista looking south over the lake. The design and location of the parking lot should preserve this vista through extra landscaping throughout the lot, or dispersal of the parking lot into smaller, removed lots.

In addition, the slope which leads down to the swimming area presents opportunities for passive and active uses. This slope would work as a winter

sledding hill, a picnic area and possibly as a performance area or amphitheater by using the slope as a seating area.

Development of the remainder of the site lends itself to passive recreation use of the natural open space area. Establishing a nature trail system to connect with trails in Wolfe Park is recommended. The trail should highlight the environmental features of the open space such as the wetlands, rock ledges, tree stands and open fields. This system could be incorporated with an interpretive center referenced in the 1981 Wolfe Park ERT report. The roadway access to Cutlers Farm Road should be included in this system. The additional recommendations for open space areas contained in the 1981 ERT are especially applicable to this area.

Transportation access should be addressed in the site development. The access road along the railroad right-of-way should remain as the main access route to the site. The planned parking area at the beach should be designed to adequately handle open space users and users of the athletic fields. Access to the upper fields should be limited to pedestrian and Town vehicles. In addition, the access road along the railroad right-of-way should be developed to coordinate with the Town's goal of recreation use of the rights-of-way. This means provision for biking or hiking along this access roadway to the beach area.

The second access point which runs from Cutlers Farm Road into the site should be preserved as a secondary access point. Access should only be provided to Town vehicles and emergency vehicles, otherwise this road should be kept in its semi-natural state and incorporated into the overall nature trail system.

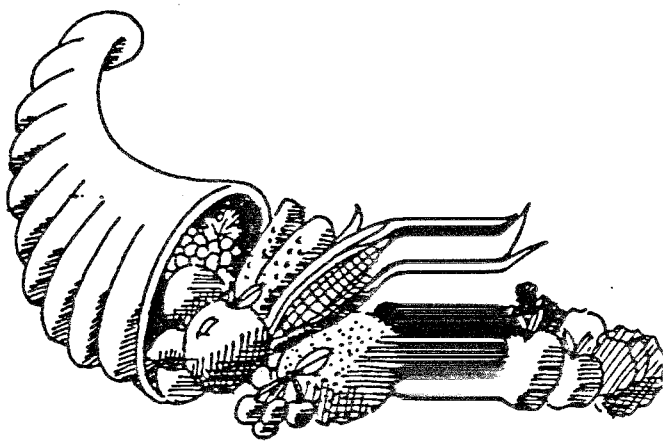
Off-site planning considerations will preserve the quality of the 90-acre site. The stated Town goal of acquiring open space should be continued, especially upstream from the site, in order to protect the water quality of the site and the lake downstream. Fulfillment of Town plans, which show open space acquisition plans

extending north along the East Branch Pequonnock River up to West Maiden Lane, would ensure the quality of the Town's investment in the park.

The Town goal of preserving the Great Hollow Lake natural boundaries supports the preservation of the visual quality of the vista from the upper fields down to the lake. Fulfillment of this goal involves limiting off-site development on properties which would overlook the site and disturb the open space quality. This is especially important along the western side of the right-of-way. Methods to achieve this goal require strict land use management. The most effective method involves Town acquisition of those private lands which may impact park quality.

In general, the plans as proposed by the Town follow proper planning guidelines. Caution must be taken to protect the natural quality of the open space areas from active recreation development and off-site development. This caution specifically includes development of athletic fields directly north of the lake. Preservation of the environmental quality of the park will also depend in part on the Town's ability to control private development upstream from the lake and surrounding Wolfe Park. Finally, the Town has an excellent opportunity to link Wolfe Park through open space acquisition and right-of-way development, with other recreation areas. This will expand the recreation opportunities of Wolfe Park and further the goal of establishing it as the main park in Monroe.

APPENDICIES



Appendix A: Soil Limitations Chart

SOIL LIMITATIONS FOR RECREATIONAL DEVELOPMENT

Map Symbol and Soil Name	Camp Areas	Picnic Areas	Playgrounds	Paths and Trails
AfB - Agawam	Slight	Slight	Moderate: slope	Slight
Ce - Carlisle	Severe: floods, ponding, excess humus	Severe: ponding, excess humus	Severe: excess humus, ponding, floods	Severe: ponding, excess humus
ChB - Charlton	Moderate: large stones	Slight	Moderate: slope, large stones	Moderate: large stones
CfB - Charlton	Slight	Slight	Moderate: slope	Slight
CfC - Charlton	Moderate: slope	Moderate: slope	Severe: slope	Slight
CnC - Charlton	Severe: large stones	Moderate: slope, large stones	Severe: slope, large stones	Severe: large stones
CnD - Charlton	Severe: large stones, slope	Severe: slope	Severe: slope, large stones	Severe: large stones
CrC - Charlton	Moderate: slope, large stones	Moderate: slope	Severe: slope	Moderate: large stones
- Hollis	Moderate: slope, large stones	Moderate: slope	Severe: slope, depth to bedrock	Moderate: large stones
Rn - Ridgebury	Severe: wetness, large stones	Severe: wetness	Severe: large stones, wetness	Severe: wetness, large stones
- Leicester	Severe: large stones, wetness	Severe: wetness	Severe: large stones, wetness	Severe: large stones, wetness
- Whitman	Severe: wetness, large stones	Severe: wetness	Severe: wetness, large stones	Severe: wetness, large stones
Sb - Saco	Severe: floods, wetness	Severe: wetness	Severe: floods, wetness	Severe: wetness
HkB - Hinckley	Moderate: too sandy, small stones	Moderate: too sandy, small stones	Severe: small stones	Moderate: too sandy, small stones

LIMITATIONS DESCRIPTIONS:

Slight: Soil properties are generally favorable; limitations are minor and easily overcome

Moderate: Limitations can be overcome or alleviated by planning, design or special maintenance

Severe: Soil properties are unfavorable, limitations can be offset by costly soil reclamation, intensive maintenance, limited use or by a combination of the measures

Appendix B: Suitable Planting Materials for Wildlife Food and Cover

SUITABLE PLANTING MATERIALS FOR WILDLIFE FOOD AND COVER

Herbaceous/Vines	Shrubs	Small Trees
Panicgrass	Sumac	Hawthorn
Timothy	Dogwood	Cherry
Trumpet creeper	Elderberry	Serviceberry
Grape	Winterberry	Cedar
Birdsfoot trefoil	Autumn olive	Crabapple
Virginia creeper	Blackberry	
Switchgrass	Raspberry	
Lespedeza	Honeysuckle	
Bittersweet	Cranberrybush	
Boston ivy		

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, soil scientists, foresters, climatologists, landscape architects, recreational 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 - an 83-town area serving western Connecticut.

As a public service activity, the Team is available to serve towns and/or developers within the King's Mark RC&D Area - free of charge.

Purpose of the Environmental Review Team

The Environmental Review Team is available to assist towns and/or developers in the review of sites proposed for major land use activities. For example, the ERT has been involved in the review of a wide range of significant land use activities including subdivisions, sanitary landfills, commercial and industrial developments and recreational/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 site and highlighting opportunities and limitations for the proposed land use.

Requesting an Environmental Review

Environmental Reviews may be requested by the chief elected official of a municipality or the chairman of an administrative agency such as planning and zoning, conservation or inland wetlands. Environmental Review Request Forms are available at your local Soil and Water Conservation District and through the King's Mark ERT Coordinator. This request form must include a summary of the proposed project, a location map of the project site, written permission from the land owner/ developer allowing the Team to enter the property for purposes of review and a statement identifying the specific areas of concern the Team should investigate. When this request is approved by the local Soil and Water Conservation District and King's Mark RC&D Executive Committee, the Team will undertake the review. At present, the ERT can undertake approximately two (2) reviews per month.

For additional information regarding the Environmental Review Team, please contact your local Soil and Water Conservation District or Nancy Ferlow, ERT Coordinator, King's Mark Environmental Review Team, King's Mark RC&D Area, 322 North Main Street, Wallingford, Connecticut 06492. King's Mark ERT phone number is 265-6695.