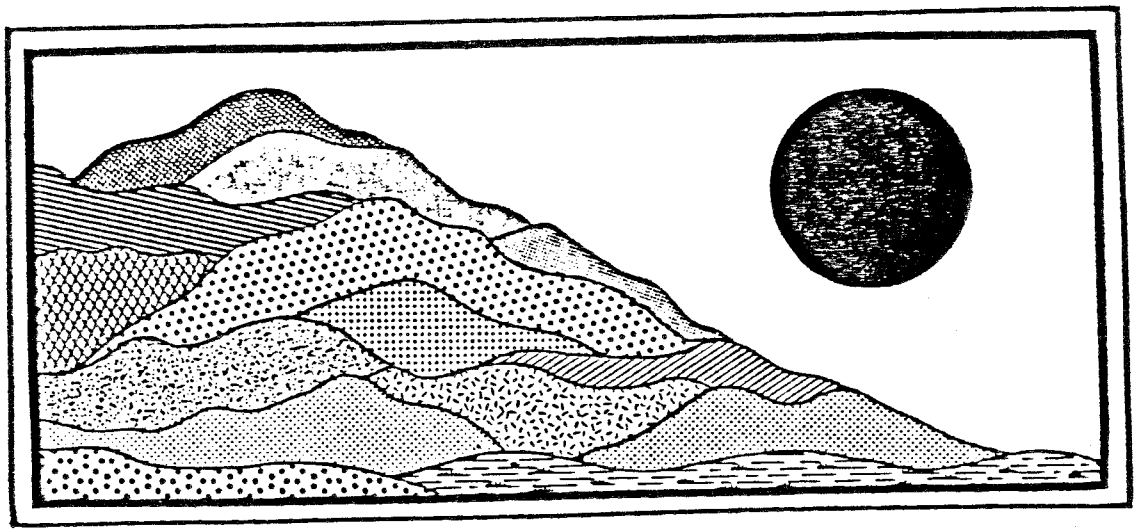
North Quarter Park

Chester, Connecticut

November 1987



ENVIRONMENTAL REVIEW TEAM REPORT

EASTERN CONNECTICUT RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC.

North Quarter Park

Chester, Connecticut

Review Date: SEPTEMBER 15, 1987

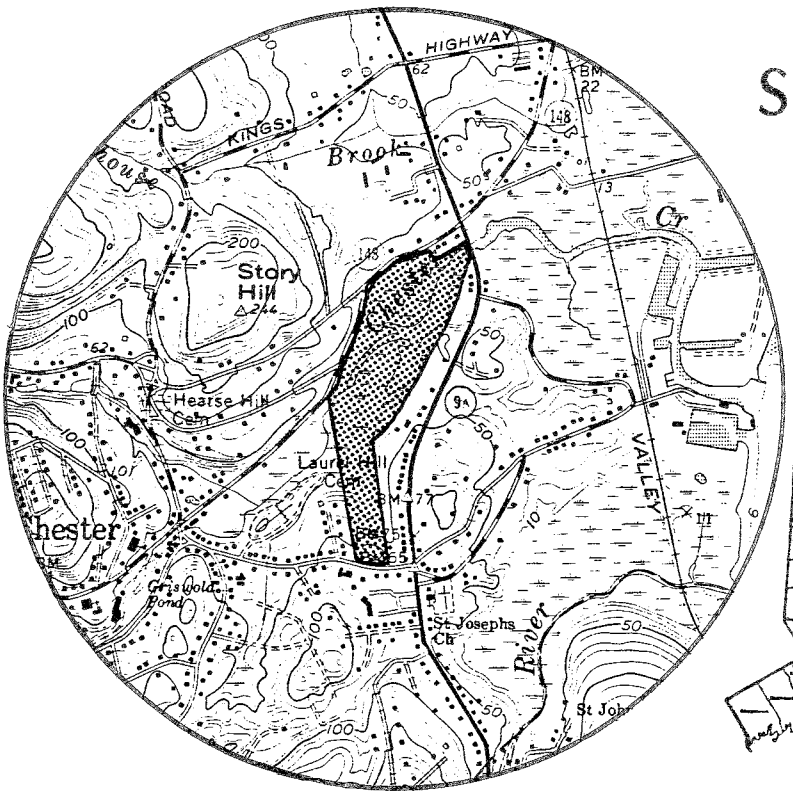
Report Date: NOVEMBER 1987

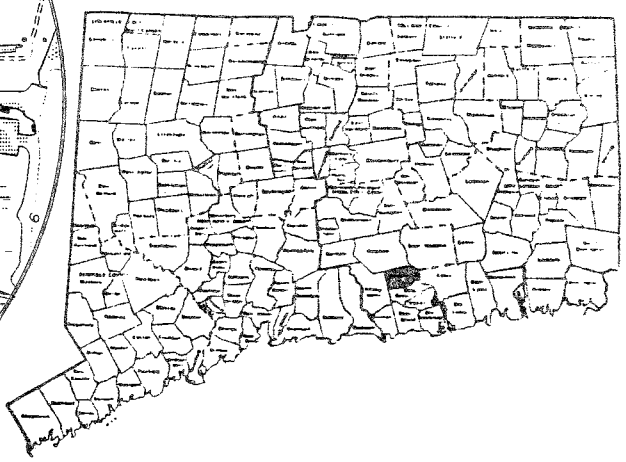
RC&D

ENVIRONMENTAL REVIEW TEAM
PO BOX 198
BROOKLYN, CONNECTICUT 06234

Site Location

NORTH QUARTER PARK
CHESTER, CONNECTICUT





EASTERN CONNECTICUT

RESOURCE CONSERVATION

& DEVELOPMENT AREA

ENVIRONMENTAL REVIEW TEAM REPORT

ON

NORTH QUARTER PARK

CHESTER, CONNECTICUT

This report is an outgrowth of a request from the Chester Park and Recreation Commission to the Middlesex County Soil and Water Conservation District (S&WCD). The S&WCD referred this request to the Eastern Connecticut Resource Conservation and Development (RC&D) Area Executive Committee for their consideration and approval. The request was approved and the measure reviewed by the Eastern Connecticut Environmental Review Team (ERT).

The ERT met and field checked the site on Tuesday, September 15, 1987. Team members participating on this review included:

Joe Hickey	--State Park Planner DEP - State Parks and Recreation
Steve Hill	--Wildlife Biologist DEP - Eastern District
Pat Leavenworth	--District Conservationist U.S.D.A. - Soil Conservation Service
Lynn Stoddard	--Coastal Planner DEP - Coastal Area Management
Elaine Sych	--ERT Coordinator Eastern CT RC&D Area
Bill Warzecha	--Geologist DEP - Natural Resources Center
Pauline Zvonkovic	--Regional Planner CT River Estuary Regional Planning Agency

Prior to the review day, each team member received a summary of the proposed project, a list of the Town's concerns and information requested, a location map, topographic map and a soils map. During the field review the team members were able to review town maps and an SCS plan. The Team met with, and were accompanied by the

Chairman of the Park and Recreation Commission. Following the review, reports from each team member were submitted to the ERT Coordinator for compilation and editing into this final report.

This report represents the Team's findings. It is not meant to compete with private consultants by providing site designs or detailed solutions to development problems. The Team does not recommend what final action should be taken on a proposed project -- all final decisions and conclusions rest with the Town and landowner. 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 developer and the Town. The results of this Team action are oriented toward the development of better environmental quality and the long-term economics of land use.

The Eastern Connecticut RC&D Executive Committee hopes you will find this report of value and assistance in making your decisions on this town owned recreation site.

If you require any additonal information, please contact:

Elaine A. Sych
ERT Coordinator
Eastern Connecticut RC&D Area
P. O. Box 198
Brooklyn, CT 06234
(203) 774-1253

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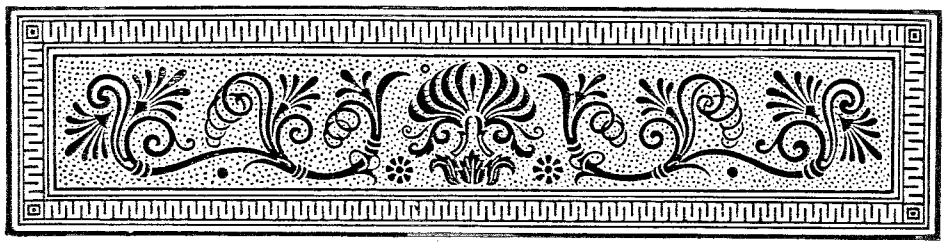
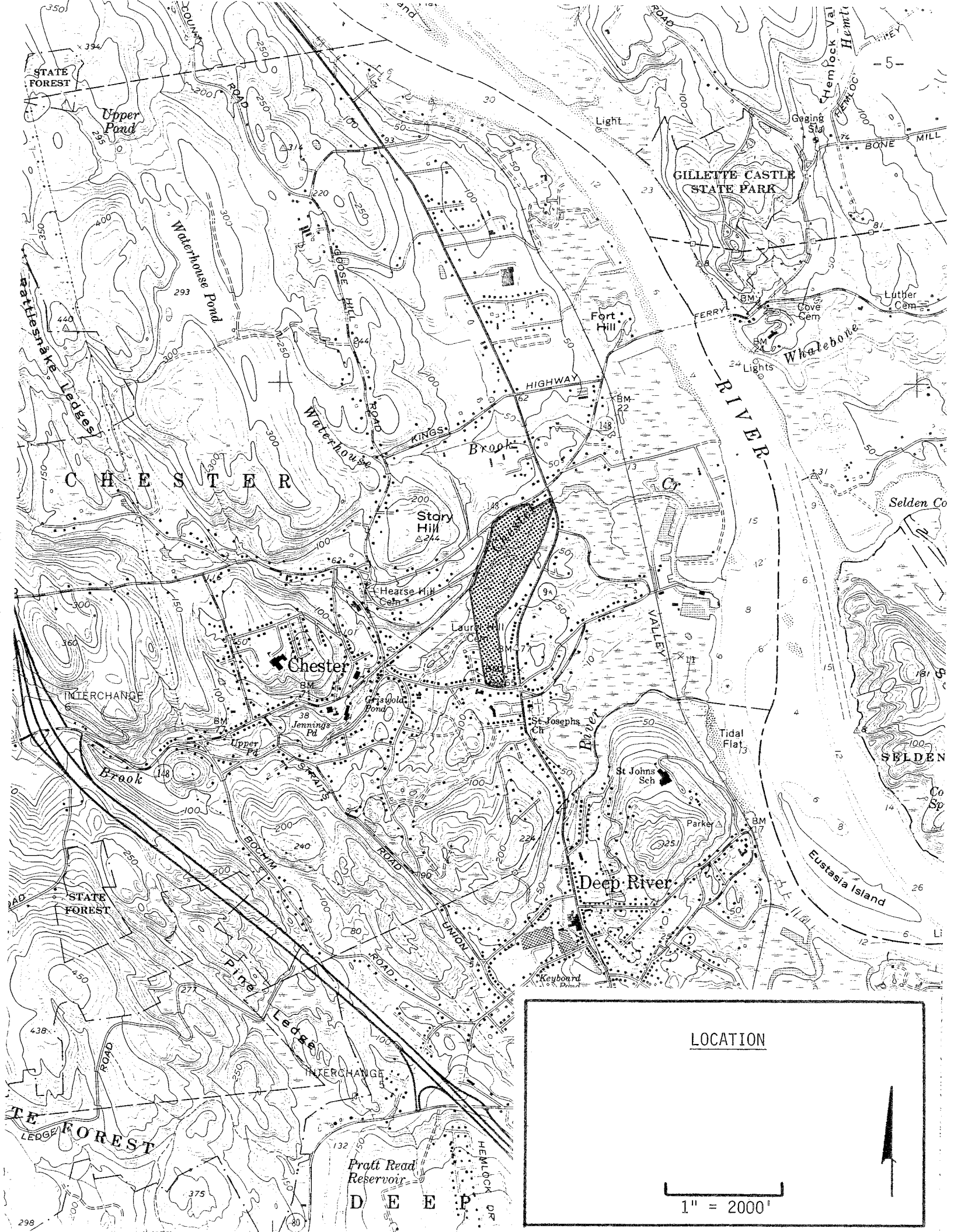
INTRODUCTION

The Eastern Connecticut Environmental Review Team has been asked to assist the Chester Parks and Recreation Commission in reviewing the town owned North Quarter Park.

The Commission has asked for a natural resource inventory and environmental assessment along with recommendations concerning future development and expansion of park facilities.

Part One of this report contains natural resource information such as geology, soils, hydrology, coastal resources and wildlife. Part Two emphasizes coastal area management and recommendations about development that reflect the sensitive nature of the area. The final part of the report has many sections with comments and specific recommendations on courses of action for the various desired facilities and functions. No summary has been written because the report is broken down into easily read and understood sections.





LOCATION

1" = 2000'

PART ONE:

ENVIRONMENTAL ASSESSMENT

1.

A. Topography and Setting

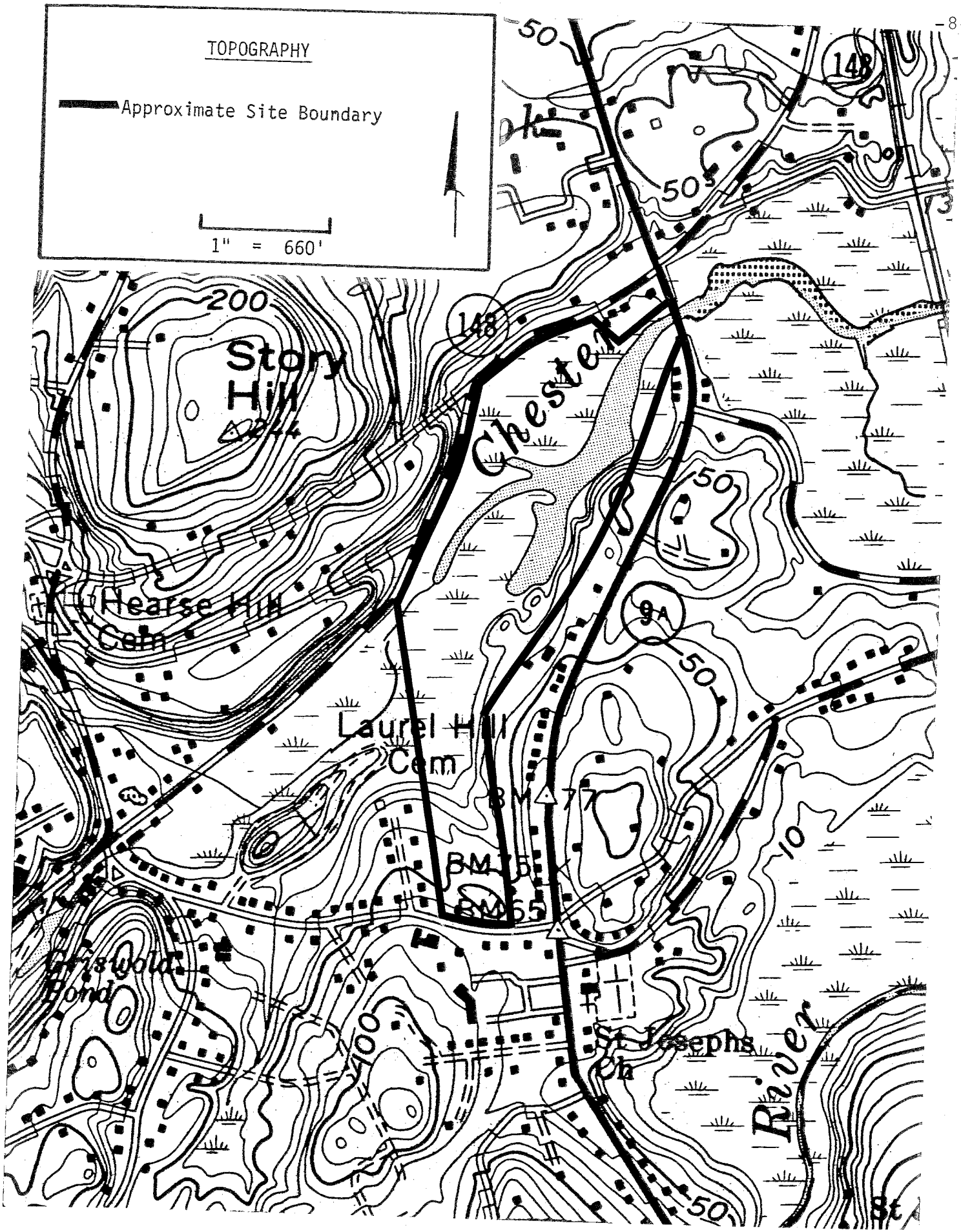
North Quarter Park consists of a ± 25 acre piece of town owned recreational land. It is located along the east side of Chester Cove northeast of Chester Center. The land surface slopes gently to moderately from the southern part and along the eastern portion of the park to Chester Cove, a freshwater tidal marsh. Approximately two-thirds (2/3) of the Park is comprised of freshwater tidal marsh. The upland portion of the site is mostly wooded (except front portion near the park entrance) and contains a network of footpaths along Chester Creek. The rear property line of single family residential homes along Route 9A abuts the eastern boundary of the Park.

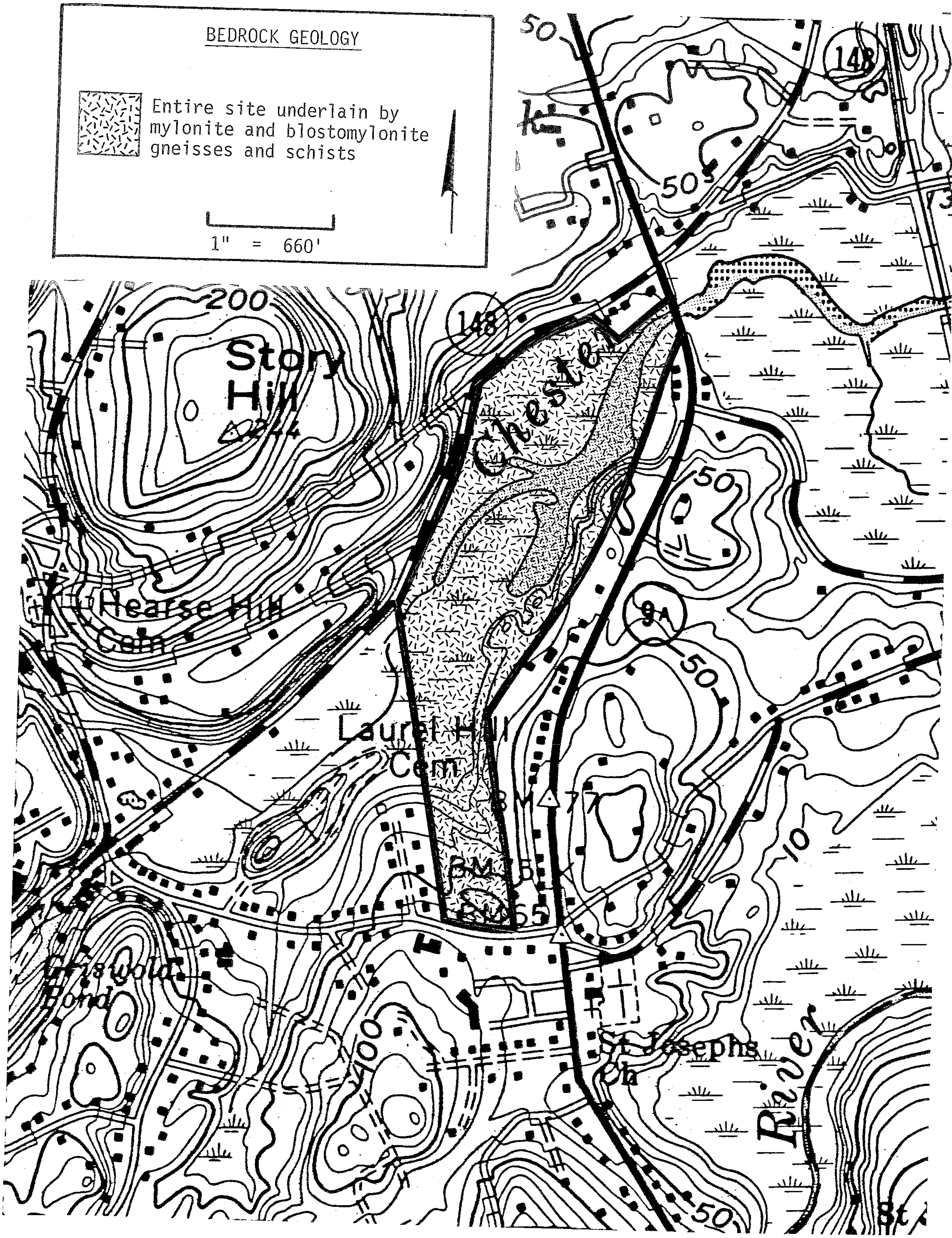
Maximum and minimum elevations are about 65 feet and 10 feet above mean sea level, respectively.

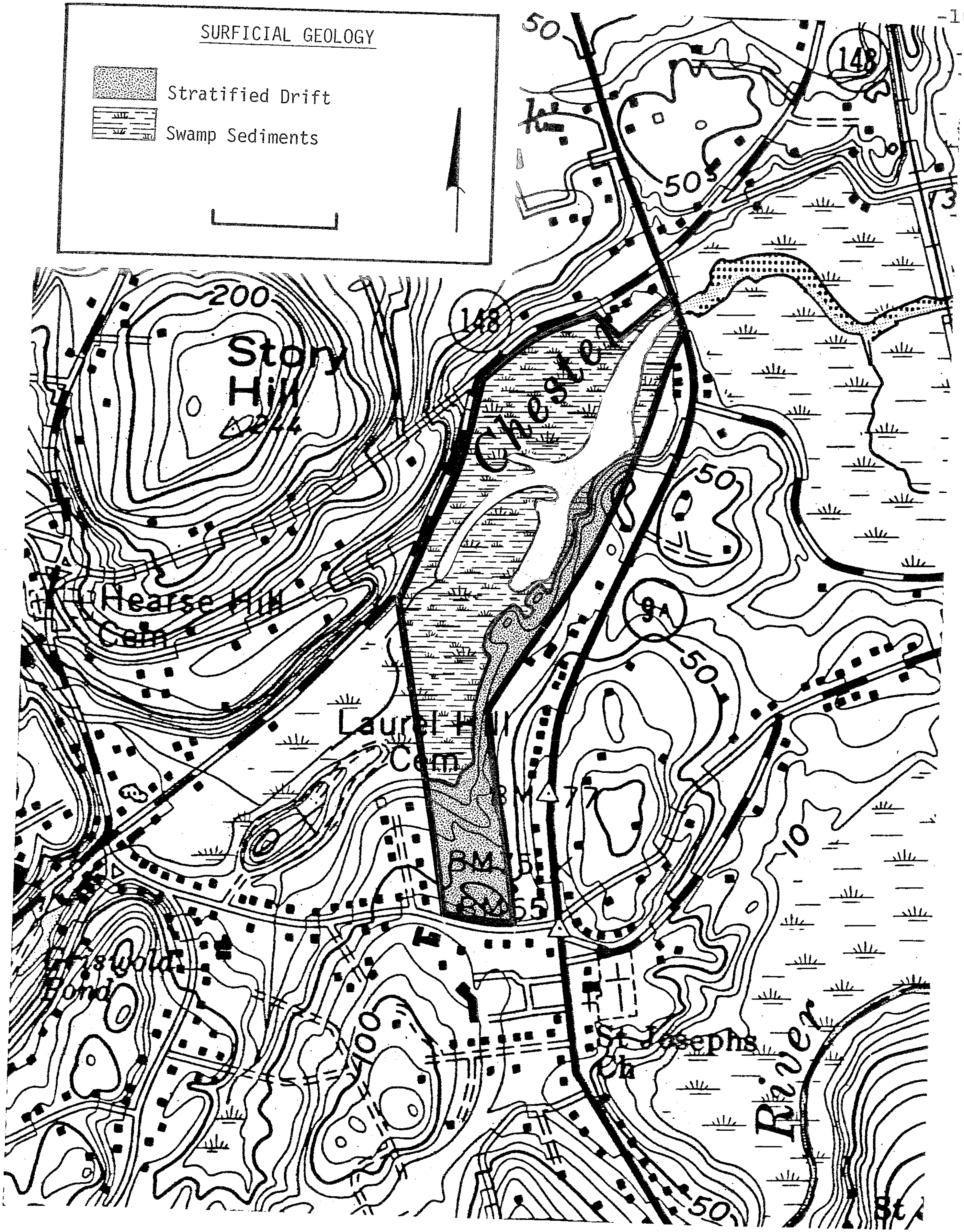
B. Geology and Geologic Limitations to Development

North Quarter Park lies entirely within the Deep River topographic quadrangle. A bedrock geologic map (QR-13, by L. Lundgren) and a surficial geologic map (GQ-1370) have been published for the quadrangles.

A few small areas of the bedrock surface are visible along paths in the eastern part. Lundgren identifies the bedrock underlying the site as a northeast trending belt of rocks called the Putnam Group. They consist mainly of gray to dark gray, medium grained gneisses and schists which lie within the Honey Hill Fault zone. A "fault" is a fracture or crack in the earth's crust, often accompanied by movement of one side of the fracture relative to the other. Some geologists believe the Honey Hill Fault is a thrust fault, formed where the earth is compressed or pushed together. The fault was activated approximately 400 million years ago during the formation of the Appalachian Mountains, but is not known to be seismically active at the present time. As a result of being subjected to these geologic forces, the rocks contain certain noticeable characteristics compared to surrounding rocks of the region. For example, these rocks are typically darker, better layered and more closely jointed than surrounding rock types. Also, they contain polished or striated (scratched) surfaces called slickensides, which result from friction along a fault plane. The terms given to rocks that have been subjected to the above action are mylonites or blastomylonites.


TOPOGRAPHY
Approximate Site Boundary
1" = 660'
50
148
200
Story Hill
Chester
Hearse Hill Cem
Laurel Hill Cem
BM 77
BM 65
Ellis Wold Pond
St Josephs Ch
River
St


BEDROCK GEOLOGY
Entire site underlain by mylonite and blostomylonite gneisses and schists
1" = 660'
Story Hill
Hearse Hill Cem
Laurel Hill Cem
St Josephs Ch
River
148
9A
200
50
10
100


SURFICIAL GEOLOGY
Stratified Drift
Swamp Sediments
Story Hill
Hearse Hill Cem
Laurel Hill Cem
Chester
River
St Josephs Ch
148
9A
200
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10

Gneisses and schists are crystalline metamorphic rocks. These rocks have been changed in texture and composition by heat and pressure within the earth's crust. Most of the gneisses consist of light and dark colored minerals arranged in layers with a banded, streaky or speckled appearance. "Schists" commonly contain a high percentage of dark-colored minerals that are platy, flaky or elongated. This mineral arrangement gives the rock a wavy or crinkled surface, which parts relatively easily.

The underlying bedrock is the source of water to many domestic wells throughout Chester.

Overlying bedrock throughout the site are unconsolidated, (surficial) materials known as stratified drift. The stratified drift consists mainly of gravel in the southern part and grades into sand in the northern part. Sand underlies the swamp sediments in Chester Creek. "Stratified drift" is a glacial sediment that was formed by the transportation and deposition of glacial rock debris by meltwaters flowing from stagnant pieces of ice. The stratified drift on the site is known as a "kame terrace", a relatively flat-topped deposit on the side of a valley wall. The "wall" in the preceding sentence refers to the bedrock controlled hill east of the Park.

Overlying the sand in Chester Creek are post-glacial sediments known as swamp sediments. They consist of dark-colored, unsorted mixtures of fine sand, silt, clay and decayed or semi-decomposed vegetational matter, and are typically wet and mucky. Swamps are important in regulating streamflow; they collect and absorb excess runoff and its sediment load, and following periods of rainfall they act as reservoirs draining slowly into streams. They provide equally valuable ecological benefits.

The geology of the Park should not pose any major problems in terms of passive recreational uses such as hiking trails, cross country skiing and picnicking. The presence of wetlands, moderate slopes and limited upland areas generally preclude the development of playing fields for baseball, soccer, etc.

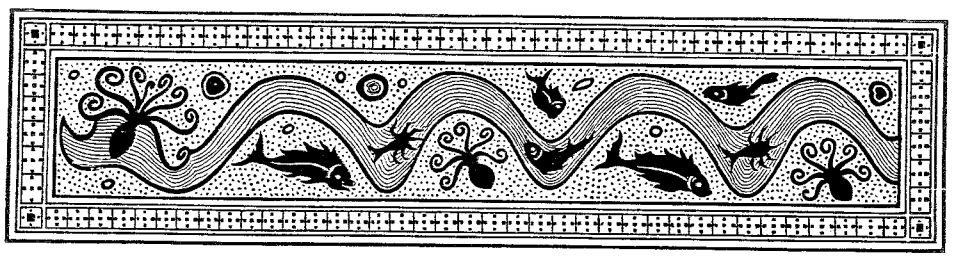
Existing hiking trails appear to be in relatively good shape, except on moderate slopes where some erosion has taken place. Every effort should be made to maintain these critical areas before they become impassable or a hazard for hikers.

One trail system which traverses the small stream in the southcentral part has no crossing. Although it is relatively simple to cross the intermittent stream during dry periods, it may be problematic during the wet, spring season. In this regard, consideration should be given to constructing a small bridge over the stream. The Middlesex County Soil Conservation Service should be contacted regarding this, if considered. (Please see PART THREE, Section I for further detailed information concerning "trails".)

The only sanitary facility visible on the review day was a portable chemical toilet. Depending on the usage of the Park, particularly during the summer months, it seems likely that there may be a need for permanent sanitary facilities. Based on soil mapping data and geologic maps, it appears that the soils at the entrance of the Park would be favorable for on-site sewage disposal. Soil testing would be required, however, by the Town Sanitarian in order to determine the soil capabilities for sewage disposal at any desired location.

C. Soils and Limitations Chart

A detailed soils map of the site is included in this section of the report, accompanied by a chart which indicates soil limitations for various urban uses. The soil limitation chart indicates the probable limitations of each of the soils for various recreational uses. It must be noted that limitations, even though severe, do not preclude use of the land for recreational purposes. (Further discussion concerning soils may be found in PART THREE.)

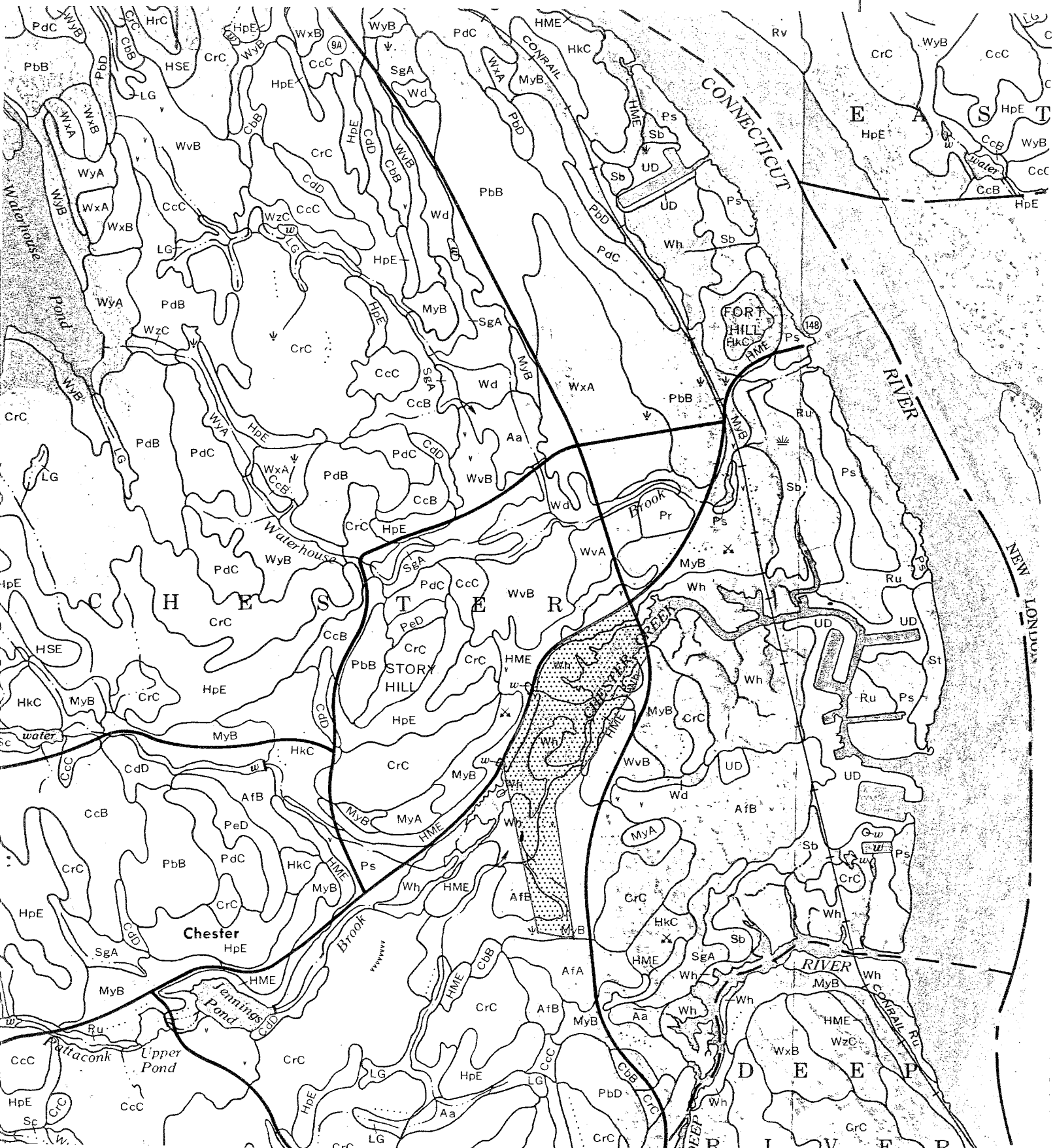


United States Department of Agriculture

Soil Conservation Service

MIDDLESEX COUNTY USDA-SCS
MIDDLESEX COUNTY EXTENSION CENTER
HADDAM, CT 06438
345-3219

SCALE 1" = 1320'



LAND USE LIMITATION RATINGS

Soil Symbol	Soil Name	Lawns, Landscaping	Excavated Ponds	Embankment Ponds	Picnic Areas	Playgrounds	Paths & Trails
AfB	Agawam fine sandy loam, 3-8% slopes	Slight	Severe (no water)	Severe (seepage)	Slight	Moderate to Severe (slope)	Slight
HME	Hinckley & Manchester soils, 15-45% slopes	Severe (droughty, slope)	Severe (no water)	Severe (seepage)	Severe (slope)	Severe (slope)	Moderate to Severe
MyB	Merrimac sandy loam, 3-10% slopes	Slight to Moderate	Severe (no water)	Severe (seepage)	Slight to Moderate (slope)	Moderate to Severe	Slight
Wh *	Westbrook mucky peat, low salt	Severe	Severe (salty water)	Severe	Severe	Severe	Severe

* Tidal wetland soil

D. Hydrology and Water Supply

North Quarter Park lies entirely within the Pattaconk Brook watershed. Pattaconk Brook is the streamcourse that flows through Chester Creek, and which ultimately flows into the Connecticut River. The small northflowing stream in the southern part collects surface and subsurface water from a small area to the south. Much of the water in the stream is comprised of road drainage emanating from Route 9A and Main Street.

Chester Creek in the northern parts has several important hydrological functions including streamflow regulations, erosion control and surface water quality protection. In addition, it is a valuable ecological asset.

According to a map entitled Groundwater Availability In Connecticut by Daniel B. Meade, 1978, Chester Creek appears to be underlain by thick coarse grained stratified drift deposits that are generally capable of providing high yields to groundwater wells. However, detailed hydrogeologic testing, which includes test wells would be required in order to determine its actual potential.

Bedrock underlying the site is also capable of producing a usable amount of water to a well. However, wells tapping bedrock, generally, provide only small (2-3 gallons per minute) yields. It seems likely though that a yield of 2-3 gallons per minute would

be adequate for passive recreational uses. If a well was pumped 2-3 gallons per minute for an 18 hour period, it would produce about 2,160 to 3,240 gallons of water.

E. Coastal Resources

North Quarter Park is made up of the following coastal resources: tidal wetlands (see Section G for detailed information on freshwater tidal wetlands), coastal flood hazard areas, and shorelands (see coastal resources map). The tidal wetlands comprise approximately 20 acres of the 25-acre site and are depicted on the State Tidal Wetlands Mapping Ecological Unit 51-2-1. Coastal flood hazard areas, those land areas which are subject to coastal flooding during the 100-year frequency storm event as determined by the National Flood Insurance Act, occur in all the tidal wetlands and extend slightly further upland. Shorelands are upland areas that are not subject to coastal flooding or other dynamic coastal processes. Approximately five (5) acres in the southern most portion of the park are categorized as shorelands.

F. Coastal Management Objectives

The Connecticut Coastal Management Act (Chapter 444 of the Connecticut General Statutes) contains policies and standards which federal, state, and municipal agencies must follow to manage the development, preservation, and use of land and water resources in Connecticut's coastal area. Any use or development of North Quarter Park must comply with these policies in the corresponding designated resource areas. In addition, the Town of Chester developed a Municipal Coastal Program (MCP) to address the resources and issues unique to Chester's coastal area. This plan reiterates the policies of the Connecticut Coastal Management Act and applies them to specific areas in the Town of Chester.

The following CCMA and Chester MCP policies are applicable to the resources of North Quarter Park:

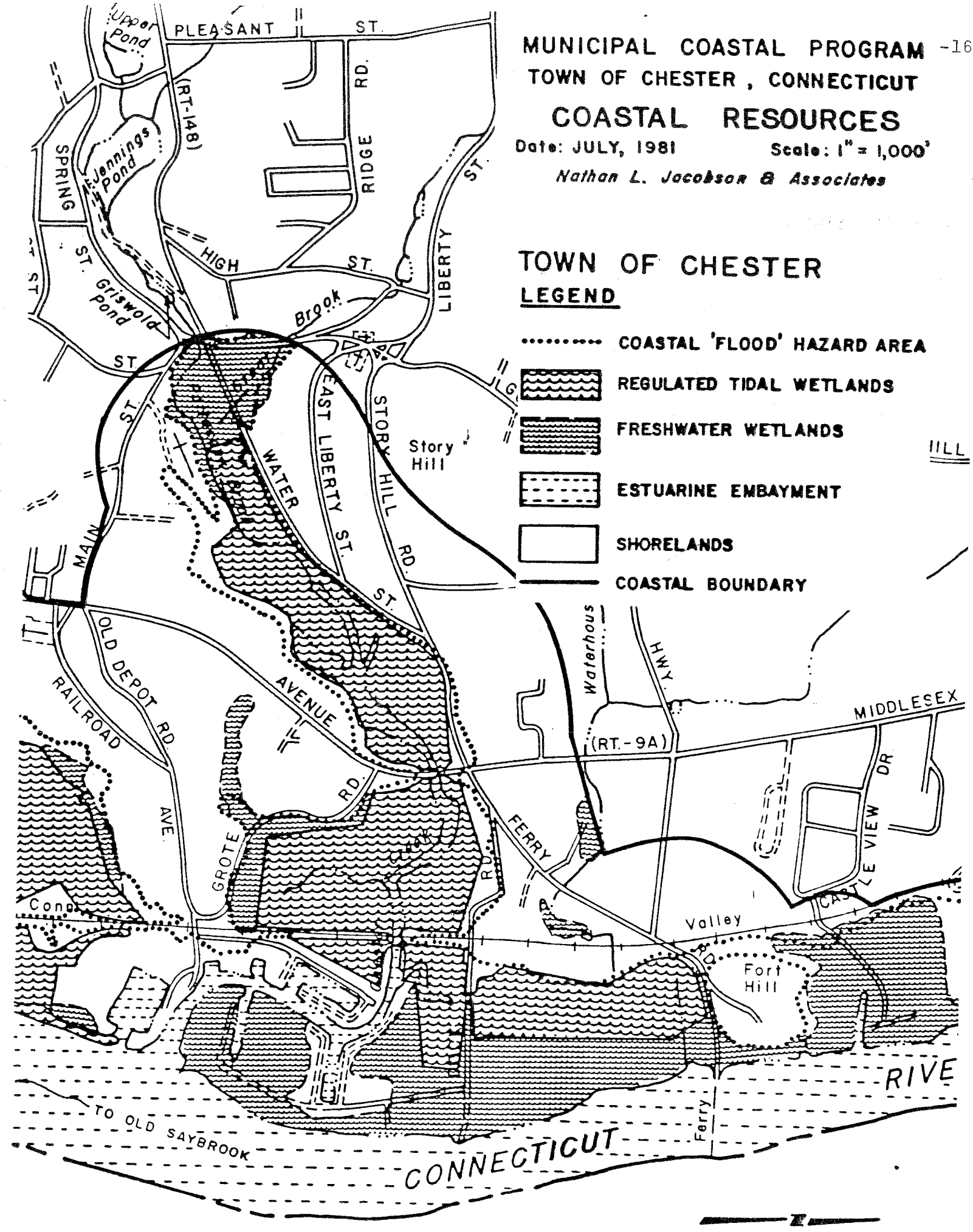
1. Tidal Wetlands

Preservation and the prevention of despoliation and destruction of tidal wetlands are the main priorities for the management of these sensitive resource areas. In addition, municipalities

MUNICIPAL COASTAL PROGRAM
TOWN OF CHESTER, CONNECTICUT
COASTAL RESOURCES

Date: JULY, 1981 Scale: 1" = 1,000'

Nathan L. Jacobson & Associates



should encourage the rehabilitation and restoration of degraded tidal wetlands wherever possible. As stated in the Chester MCP, passive recreation and conservation are activities which are generally consistent with coastal management policies for tidal wetlands.

2. Coastal Flood Hazard Areas

In areas subject to coastal flooding, development must be managed in a manner that will ensure that hazards to life and property are minimized. Recreation, conservation activities, and grading and excavation are uses which are generally consistent with coastal management policies for coastal flood hazard areas.

3. Shorelands

Development in these upland areas must be managed in a manner that minimizes adverse impacts upon adjacent coastal systems and resources. These are the areas most suitable for development. Sensitive designs and resource protection measures can be used to minimize impacts on adjacent resources.

G. Freshwater Tidal Marshes

Freshwater tidal marshes attain their optimal development along large tidal river systems characterized by gentle gradients coupled with tidal influence over considerable distances. They have nearly freshwater conditions (average salinity generally less than 0.5 ppt), plant and animal communities dominated by freshwater species, and daily lunar tidal fluctuations. Freshwater tidal marshes are generally dominated by a diversity of plants including broad-leaved perennials, herbaceous annuals, grasses and sedges, reed-like perennials, and a few hydrophytic shrubs growing in a structured framework from open water to the upland border.

Freshwater tidal marshes have a much different appearance from salt and brackish tidal marshes. Plant diversity is much greater here with a mosaic of dominance quite different from the almost monospecific salt and brackish marshes found nearer the mouth of the river. An aspect unique to freshwater tidal marshes is the extreme change in appearance over the course of the growing season. This is especially true of the "low marsh" where the seasonal aspect changes from nearly bare, open mud to a dense 2+m growth of annual grasses.

Freshwater tidal marshes are a relatively stable environment in which patterns and distribution of plant communities can persist for many years. However, two major factors influence the development and appearance of freshwater tidal marshes over time; coastal submergence and sedimentation rates. In Connecticut, sea level has gradually risen since the last glaciation, with a recent rate of submergence calculated as approximately 2.6mm/year. This has resulted in the inland migration of tidal inundation with two effects: an upriver movement of salt water influence and an inland expansion of river marshes onto lowlying adjacent lands. Secondly, freshwater tidal marshes tend to have certain geomorphological and ecological characteristics that reflect their age. Simplistically, coastal estuarine marshes fall into three categories: 1) young marshes which are largely low or intertidal, 2) mature marshes which are a mixture of low and high marsh, and 3) old marshes which are largely high marsh. In addition, changes in the character of freshwater tidal marshes can result from impoundment, tidal restriction, burning, excavating, etc. All these activities can have a pronounced influence on the character of the vegetation in these dynamic systems.

In Connecticut, freshwater tidal marshes are a relatively uncommon class of wetlands. Along the Connecticut River, the extent is approximately 1,100 acres with less than a dozen significant sites. Aside from their restricted range and occurrence, the following characteristics combine to elevate their overall significance: 1) physiognomic and species diversities are greater than in salt marshes, a fact that contributes to their increased usage by wildlife; 2) these are critical habitats for a number of rare plants and animals; 3) no two marshes are identical; 4) wild rice marshes are a significant resting and feeding area for waterfowl, songbirds, shorebirds, and especially Sora rails; and 5) productivity can equal or exceed that of salt marshes.

The fairly large acreage of freshwater tidal marshes along Chester Creek have good zonation from open mud flat to areas of high marsh and shrub thickets. This marsh is relatively undisturbed and remains in a natural state. For these reasons, it is recommended that the marshes along Chester Creek be left in a natural condition and utilized for passive recreation and nature study.

H. Wildlife Resources

North Quarter Park consists of two distinct wildlife habitats. The upland forest site consists mainly of mixed hardwoods. The major overstory tree species include red maple (Acer rubrum), various oak species (Quercus spp.), and scattered beech (Fagus gradifolia). Understory vegetation consists of oak and maple seedlings, red cedar (Juniperus virginiana), sweet pepperbush (Clethra alnifolia), and greenbriar (Smilax spp.). The remainder of the site, excluding the proposed park development area, is a freshwater tidal marsh. The dominant tree species in this wetland area, the red maple (Acer rubrum), grows in scattered locations along with willows (Salix spp.). The following plants can also be found in this wetland habitat: wild rice (Zizania aquatica), cat-tail (Typha latifolia), skunk cabbage (Symplocarpus foetidus), pickerelweed (Pontederia cordata), water smartweed (Polygonum punctatum), and the common three-square (Polygonum hydropiperoides).

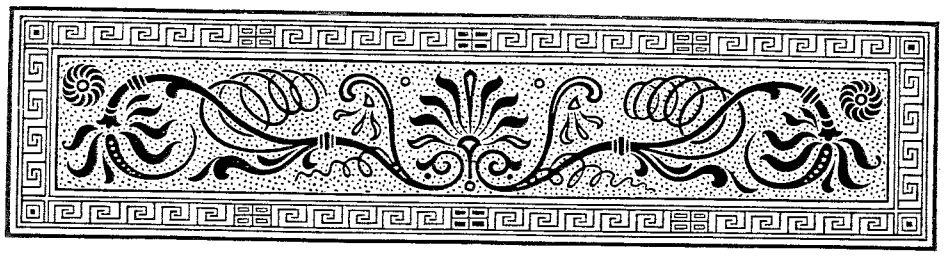
The upland forested area provides habitat for the following wildlife species: white-tailed deer, raccoon, fox, and various other small mammals. The birds inhabiting this area include redtailed hawk, American kestrel, common screech owl, ruffed grouse, and various species of woodpeckers (Picoides spp.), flycatchers (Tyrannus spp.), titmice (Parus spp.), nuthatches (Sitta spp.), vireos (Vireo spp.), wood warblers (Parula spp.), and American crow (Coruus brachyrynchos).

The freshwater tidal marsh provides habitat for a variety of wildlife species including raccoon, muskrat, otter, mink, and various small mammals. Bird species utilizing this area include dabbling ducks (Anas spp.), wood duck (Aix sponsa), kingfisher (Ceryle alcyon), flycatchers (Tyrannus spp.), and numerous reptiles and amphibians.

The freshwater tidal marsh is a highly diverse habitat in terms of vegetation and wildlife. This area is of special concern according to the Natural Resources Center, Connecticut DEP who would like to see regions such as these protected.

The wildlife habitat present on this site provides the town with a special area for the development of recreational facilities. A nature trail complete with informational signs providing insight into the ecology of the freshwater tidal wetlands is beneficial in that it helps the general public appreciate its ecological value.

The trail should be developed as to conform to existing landscape textures, taking advantage of knolls which overlook the marsh area. The trail should pass through or close to a variety of habitat types within the mixed hardwood forest in addition to the marsh. Care should be taken not to disturb the forest habitat during the construction process. (See PART THREE, Section I for further information on "trails".)



PART TWO

COASTAL AREA MANAGEMENT AND DEVELOPMENT

2.

A. Zoning

The land in North Quarter Park falls under two different zoning classifications. Prior to the adoption of the Chester MCP, most of North Quarter Park was zoned for residential use, with a minimum lot size of one-half (1/2) acre. As a part of the MCP planning process, the tidal wetlands of Chester Creek were re-zoned to "Tidal Wetland District". This district affords increased protection of wetlands by allowing only low intensity agriculture and single-family dwellings on two-acre lots by special exception.

The shorelands area in the south of the Park is zoned "Commercial". The principal uses permitted in this district are residential dwellings, professional and business offices, and retail stores and shops. Parks and playgrounds are allowed if a special exception is granted by the Chester Planning and Zoning Commission.

B. Recommendations

The two management objectives for the park should be the preservation of the sensitive and unique wetlands of Chester Creek and appropriate development of the shorelands for recreational use. Although preservation of resources and use of the land are often conflicting goals, North Quarter Park contains resource areas that will adequately accommodate both of these objectives.

C. Preservation of Tidal Wetlands

The wetlands of Chester Creek can be more specifically characterized as freshwater tidal wetlands. This community type is extremely rare in Connecticut and the New England area, and such fresh and brackish tidal wetlands on the Connecticut River may represent wetlands of national significance. Freshwater tidal wetlands provide the habitat for several rare plant and animal species. Although Chester Creek has not been extensively inventoried botanically, at least one rare plant is reported to exist there.

Because of the uniqueness and ecological importance of the Chester Creek wetland system, the town should consider the possibility of designating this portion of the park as a Natural Area Preserve. Such designation would provide official recognition and ensure preservation of this significant tidal creek. The Natural Resources Center of the Connecticut Department of Environmental Protection (566-3540) can provide more information on Natural Area Preserve designation.

In addition, the town should consider ways to provide protection for the privately-owned sections of the Chester Creek wetlands. First, it must be determined exactly where the park boundaries lie in relation to the private properties abutting the park, and how the wetlands boundaries correspond with these property lines. Then the town should seek conservation easements from residents who own land directly adjacent to or within the wetland boundary. Easements can be obtained through donation or purchase by the town or a local land trust and would ensure the continued preservation of these additional wetland areas that are in private ownership.

D. Recreational Use

Approximately 5 acres of upland (shorelands) exist in North Quarter Park. A portion of this land is wooded and portions are mowed grassy areas. The wooded areas along the creek and wetlands provide an excellent setting for nature trails. Some trails exist along the eastern side of the park already. These could be used for hiking, nature study and bird watching. Interpretive signs would be helpful to explain the vegetative communities and significance of the wetland habitat. In further developing this trail system, the town should explore the possibility of incorporating portions of trail that provide good views of the wetland without disturbing the woodland habitat. It may even be possible to build a section of the trail on boardwalks (on the edge of the wetland).

The grassy areas in the southern end of the park could accommodate more active recreational uses by providing picnic areas, open playing fields and playgrounds. A more extensive study of the space available and the recreational facilities desired should be done to determine whether tennis courts or a baseball field can be physically sited in this portion of the park. Finally, the suitability of the soils for a septic system must be performed if restrooms are to be developed. (See PART THREE for further information concerning recreation use.)

PART THREE

PLANNING AND RECREATION POTENTIAL

3.

A. Access and Plan of Development

The site's location off North Main Street presents a good location for residents to utilize the park's facilities. The town may wish to consider upgrading pedestrian access by installing sidewalks along North Main Street. There was mention of a second walkway coming off School Street. This should be in addition to the above if possible.

The park itself, as described in the draft update of Chester's Plan of Development is 22.25 acres. Of this total acreage approximately 1 acre is a parking lot, 1 acre has play apparatus and picnic tables and 1/2 acre is a mowed, unmarked playing field. The following facilities include: Play apparatus - 6 toddler swings, 3 toddler spring mounted seats, 1 toddler merry-go-round, 1 slide, 2 jungle gyms, 2 see saws. Picnic area - 4 park benches, 3 picnic tables, 1 portable toilet, 1 playing field.

The Plan states that one more acre could be developed for active recreation. This is due to the topography and wetlands occurring on the remainder of the site.

B. Frontage Along Main Street

The frontage along Main Street is quite handsome, consisting of a grassed area containing a row of trees and backed by a hedge of yews, separating the interior of the park from the road. It is suggested that the tree that died and was removed be replaced.

C. Parking Lot

The parking lot at the southeast corner of the park is bordered by a handsome fence on the west and north sides, but needs more definition on the east, especially on the lot line between the structure at the corner of Main Street and Route 9A and the park. As this structure is being restored, it should be possible for the Town of Chester to cooperate with the landowner in question to accomplish this end. Also, paving may be desirable eventually, to improve the appearance of the lot.

D. Small Field Close to Main Street

The small field closest to Main Street has soils mapped as Merrimac sandy loams. As these soils tend to be droughty, vegetative cover is difficult to maintain with intensive use and no irrigation. This area may best serve as a potential site for parking lot expansion, tennis courts, basketball courts or horseshoe pits since there is strong participation in the sport in the area.

E. Children's Playground

The children's playground to the rear of the parking lot is attractive and clearly is getting substantial use.

F. Picnic Facilities

The wooded area along the western border of the property would be a good site for development of picnic facilities. Underbrush should be cleared and some trees removed. Soils are mapped as Agawam fine sandy loams, which are well drained and have slight limitations for use as picnic areas.

G. Other Field Areas

The field north of the children's playground could be used for a variety of field sports. Soils are mainly Agawam fine sandy loams, which have slight limitations for lawns and landscaping.

This is an attractive area and could be maintained as is. Ball fields are not recommended because of the limited size of the park, the proximity of neighbors, the need for regrading, and the resulting destruction of attractive portions of the existing park. Instead it is recommended that ball fields, perhaps of a multiple use type, or a running track be developed elsewhere in town, preferably on level, well-drained site adjacent to a school where school and other public use can be accommodated.

Hedgerow screens can be planted to divide open field areas and to direct user traffic to pathways, thus reducing concentrated traffic over grassed areas.

H. Pond Sites

While the soils mapping does not indicate potential pond sites on the property, the area near the northwest corner of the center field on the property could be checked as a possible site. A test pit should be excavated to determine soil type and depth to water. The Middlesex County Soil and Water Conservation District can help with the evaluation.

Another suggestion is that a skating pond could be located along a brook, perhaps on one of the ponds on Pattaconk Brook reportedly donated to the Town of Chester some years ago by the Stanley Works, Inc.

I. Trails

A trail could be developed around the perimeter of the main property for use as a running track. It could be connected to the existing trail system along the top of the slope bordering the marsh. The trail system should be designed with grades of about 5% or less. Sustained grades should not exceed 8% and steeper grades up to 15% should not exceed a distance of 200 feet. For grades over 15%, steps and handrails should be used. More gradual slopes throughout the trail system may be needed to accommodate handicapped and elderly people. Grades of 5% or less are needed for wheelchair trails. Minimum width should be 5 feet. To accommodate large groups 8 to 10 feet is necessary. Wooden platforms or gravel should be placed across wet areas. Bridges are to be used at stream crossings. A layer of woodchips can help stabilize trail surfaces.

Adequate water control measures, such as uphill ditching and water bars, should be installed to prevent erosion on steeper trail sections.

Tree limbs should be removed to a height of 10 to 12 feet and pruned flush to the tree.

Care should be taken locating and stabilizing lookouts on the trail section located along the marsh. Steep slopes and sand and gravel soils combine to create a potentially high erodible condition in this area.

Vehicular access paths from abutting properties should be blocked to prevent continuation of such use.

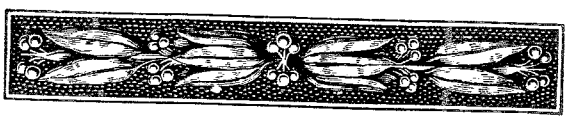
The trail should be marked and a map of the finished trail should be developed and posted. The town may wish to contact a scouting organization or local civic club on this proposal. (See Wildlife Resources section for other comments)

J. Canoe Launch Area

It should be determined (through a survey) if the canoe launch area behind the restaurant is park property. If it is, the area could use improvements and a sign.

K. Other Comments

A detailed survey of the property should be conducted and accurate topographic information should be obtained. This information is necessary to determine the exact park boundaries so plans can be made for the actual areas to be developed and improved.



About The Team

The Eastern Connecticut Environmental Review Team (ERT) is a group of professionals in environmental fields drawn together from a variety of federal, state, and regional agencies. Specialists on the Team include geologists, biologists, foresters, climatologists, soil scientists, landscape architects, archeologists, recreation specialists, engineers and planners. The ERT operates with state funding under the supervision of the Eastern Connecticut Resource Conservation and Development (RC&D) Area--an 86 town area.

The Team is available as a public service at no cost to Connecticut towns.

PURPOSE OF THE TEAM

The Environmental Review Team is available to help towns and developers in the review of sites proposed for major land use activities. To date, the ERT has been involved in reviewing a wide range of projects including subdivisions, sanitary landfills, commercial and industrial developments, sand and gravel operations, elderly housing, recreation/open space projects, watershed studies and resource inventories.

Reviews are conducted in the interest of providing information and analysis that will assist towns and developers in environmentally sound decision-making. This is done through identifying the natural resource base of the project site and highlighting opportunities and limitations for the proposed land use.

REQUESTING A REVIEW

Environmental reviews may be requested by the chief elected officials of a municipality or the chairman of town commissions such as planning and zoning, conservation, inland wetlands, parks and recreation or economic development. Requests should be directed to the Chairman of your local Soil and Water Conservation District. This request letter should include a summary of the proposed project, a location map of the project site, written permission from the landowner allowing the Team to enter the property for purposes of review, a statement identifying the specific areas of concern the Team should address, and the time available for completion of the ERT study. When this request is approved by the local Soil and Water Conservation District and the Eastern Connecticut RC&D Executive Council, the Team will undertake the review on a priority basis.

For additional information regarding the Environmental Review Team, please contact Elaine A. Sych (774-1253), Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, P.O. Box 198, Brooklyn, Connecticut 06234.