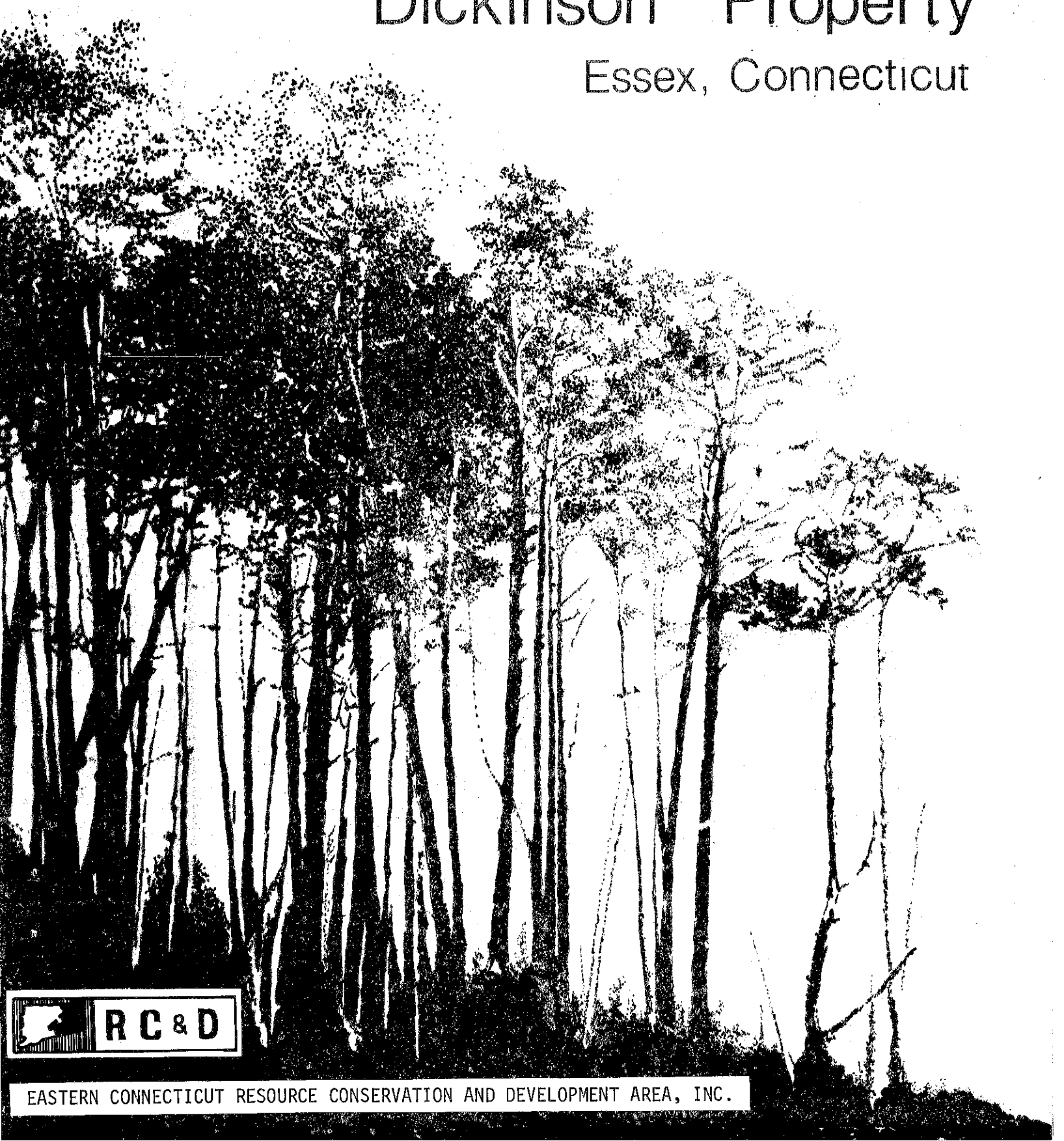


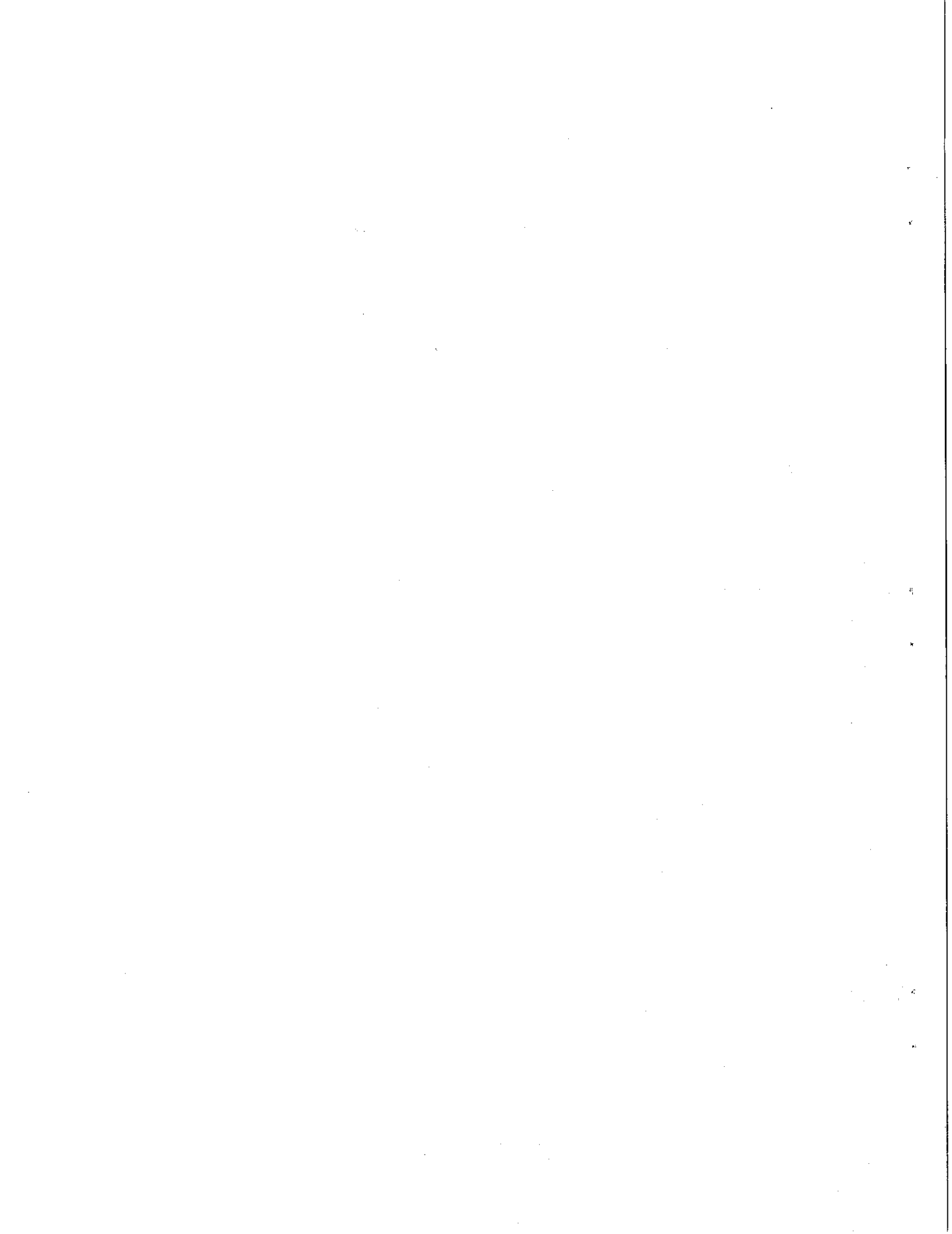
Environmental Review Team Report

Dickinson Property

Essex, Connecticut



EASTERN CONNECTICUT RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC.

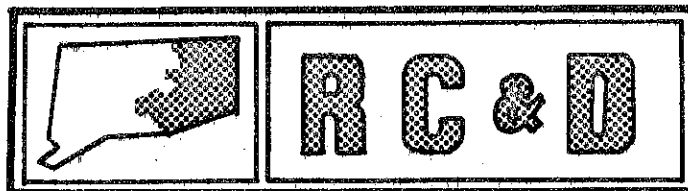


Environmental Review Team
Report

on

Dickinson Property
Essex, Connecticut

June 1979

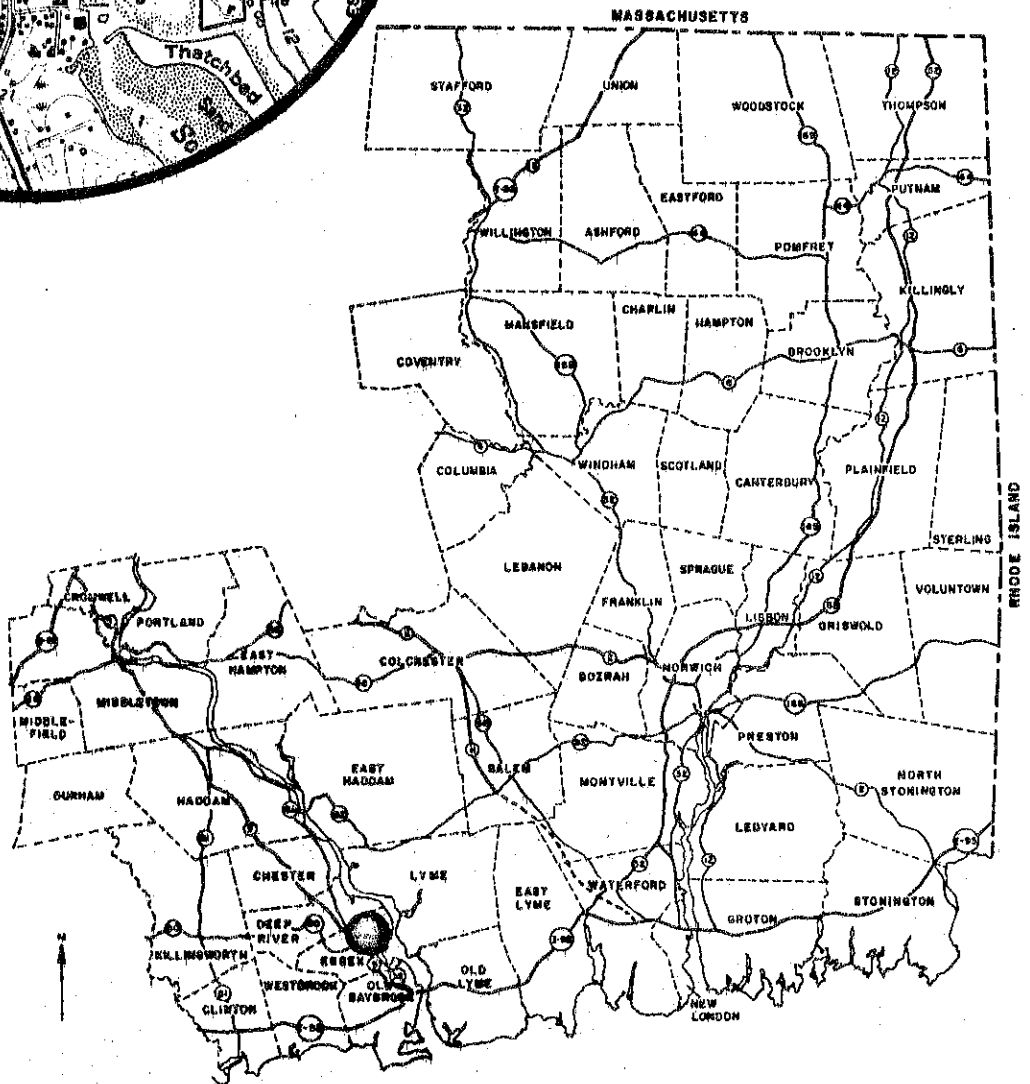
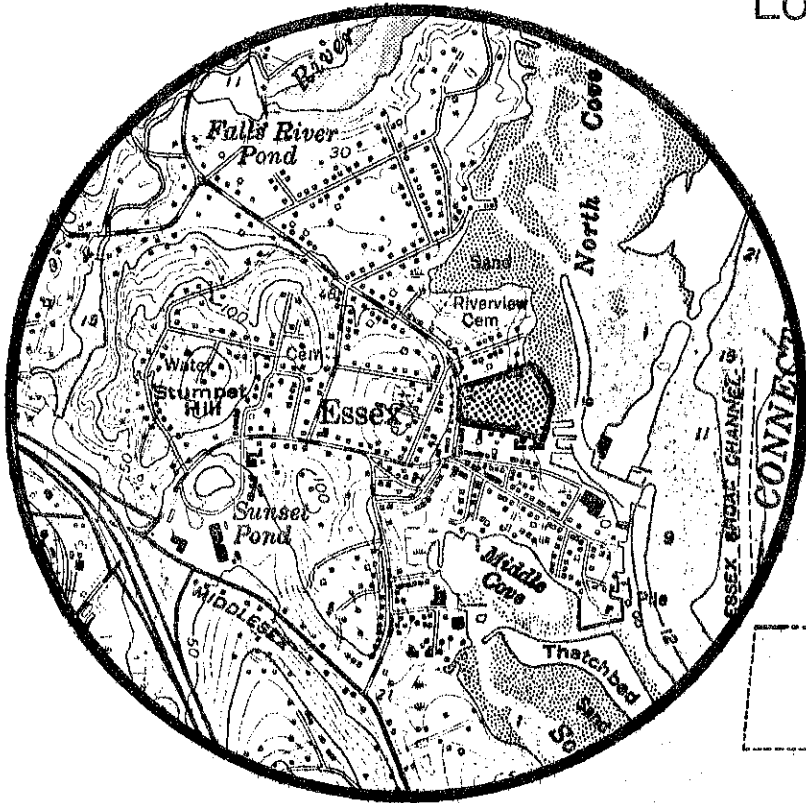


eastern connecticut resource conservation & development area

environmental review team
139 boswell avenue
norwich, connecticut 06360

Location of Study Site

DICKINSON PROPERTY
ESSEX, CONNECTICUT



EASTERN CONNECTICUT
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT

ENVIRONMENTAL REVIEW TEAM REPORT
ON
DICKINSON PROPERTY
ESSEX, CONNECTICUT

This report is an outgrowth of a request from the First Selectman of Essex 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 for the RC&D Executive Committee by David Wordell, Committee President, and the measure was reviewed by the Eastern Connecticut Environmental Review Team (ERT).

The soils of the site were mapped by a soil scientist from the United States Department of Agriculture, Soil Conservation Service (SCS). Reproductions of the soil survey map, a table of soils limitations for certain land uses and a topographic map showing property boundaries were distributed to all Team members prior to their review of the site.

The ERT that field-checked the site consisted of the following personnel: Barry Cavanna, District Conservationist, Soil Conservation Service (SCS); Joe Neafsey, Soil Conservationist, SCS; Richard Hyde, Geologist, Connecticut Department of Environmental Protection (DEP); Ed Meehan, Regional Planner, Connecticut River Estuary Regional Planning Agency (CRERPA); and Jeanne Shelburn, ERT Coordinator, Eastern Connecticut RC&D Area.

The Team met and field checked the site on Monday, May 14, 1979. Reports from each contributing Team member were sent to the ERT Coordinator for review and summarization for the final report.

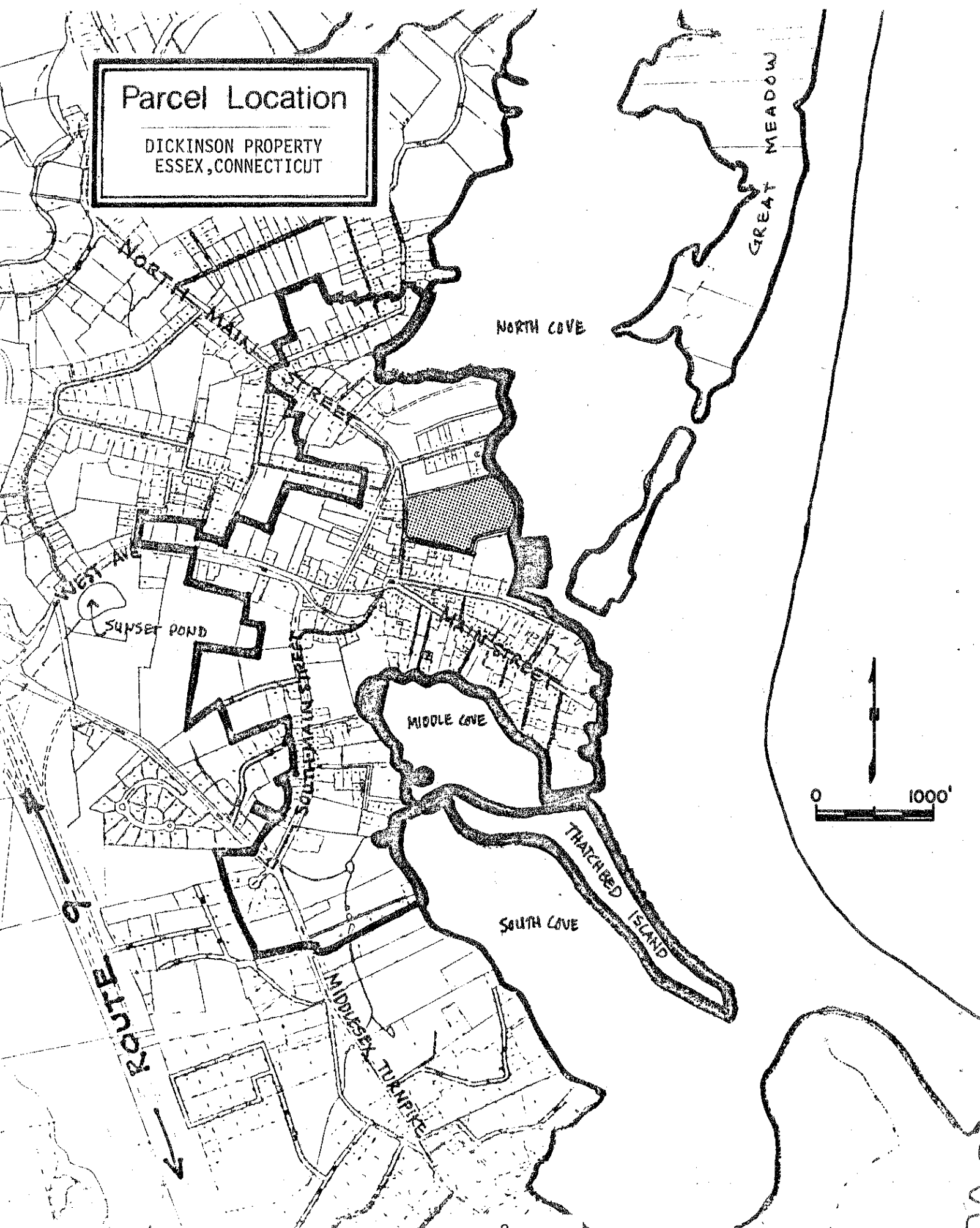
This report is not meant to compete with private consultants. As requested by the Town, this report, which identifies the existing resource base of the Dickinson Property, shall constitute the environmental assessment portion of the Town's open space application for Federal Department of the Interior, Bureau of Outdoor Recreation (BOR) funds to assist in the acquisition of the Dickinson Property.

The Eastern Connecticut RC&D Area Committee hopes that this report will be of value and assistance in making any decisions regarding this particular site.

If you require any additional information, please contact: Ms. Jeanne Shelburn, Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, 139 Boswell Avenue, Norwich, Connecticut 06360, 889-2324.

Parcel Location

DICKINSON PROPERTY
ESSEX, CONNECTICUT



DESCRIPTION OF THE PROPOSAL

The Eastern Connecticut Environmental Review Team was asked to prepare an environmental assessment for a parcel known as the Dickinson Property. The property is located in the Village of Essex and is bound on the east by the Connecticut River, the south by Bushnell Street, the west by North Main Street and a 0.92 acre parcel owned by the Dickinson family, and the north by the same parcel and Dickinson Lane.

The land is open and gently sloping toward the river and kept predominantly as a hay lot, except for a lawn area adjacent to Bushnell and North Main Street.

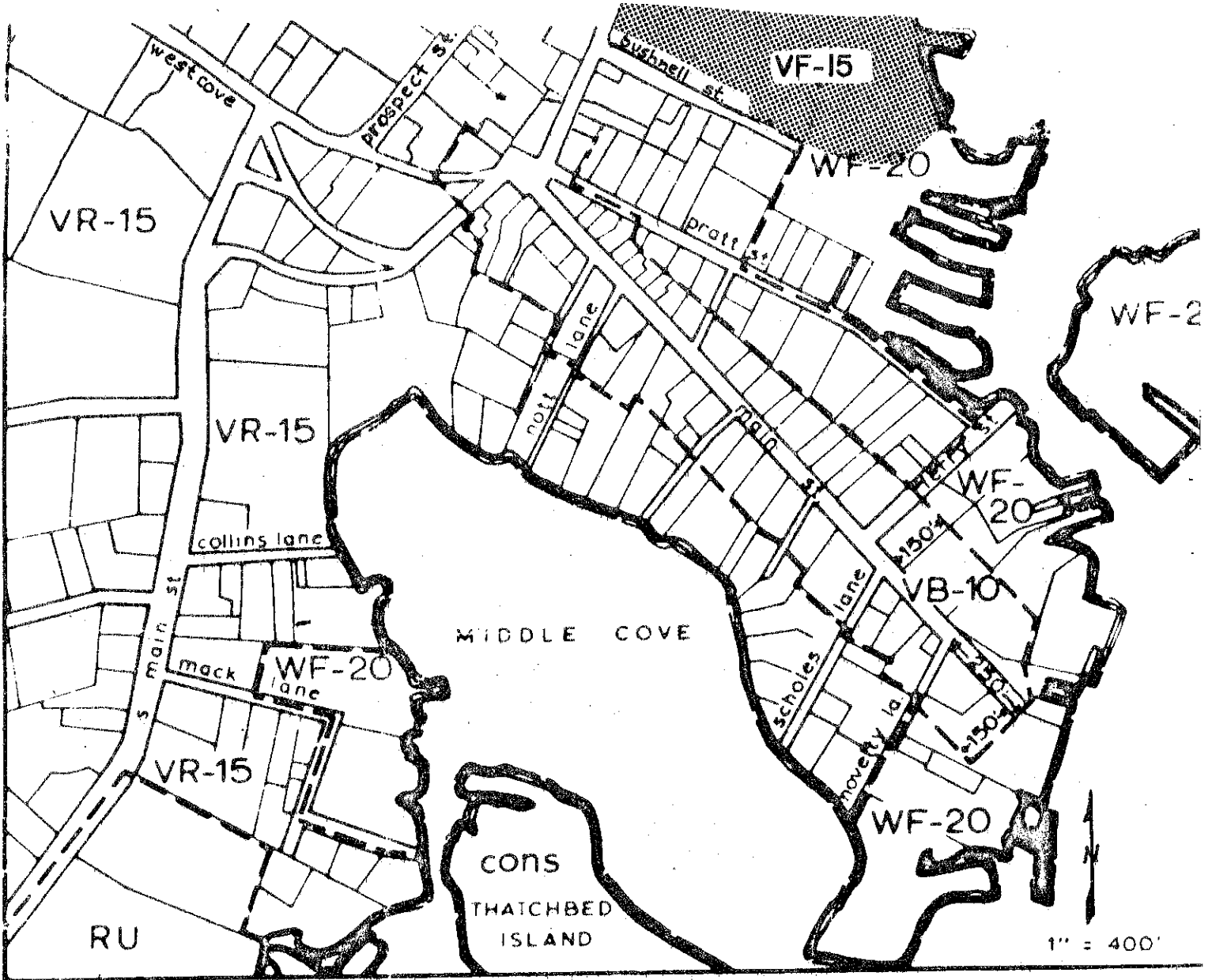
The proposed acquisition of the Dickinson property will be undertaken by the Town of Essex. The Town is seeking Federal financial assistance in the amount of 50% of the site's fair market appraised value from the Heritage Conservation Recreation Service, 25% funding support from the State of Connecticut, Department of Environmental Protection, the remaining balance of 25% would be from local sources.

The acquisition of the 8.13± acre Dickinson parcel is intended to accomplish public stewardship of this strategically located waterfront parcel for the use and enjoyment of the general public.

The site will permit waterfront access to Essex's North Cove. This Cove leads directly to the Connecticut River. The Regional Plan of Development, Open Space Component; Essex's Town Plan; and Connecticut's State Comprehensive Outdoor Recreation Plan (SCORP) all support and encourage the acquisition of waterfront parcels. In addition, this tract lies within the Connecticut River Conservation Zone (Conn. General Statute Chapter 477a). The Gateway Commission has formally endorsed the acquisition of this parcel.

This parcel was offered to the town by the Dickinson Estate. The Essex Board of Selectmen have established a Site Study Committee and involved all appropriate local commissions. Representatives of the Connecticut Department of Environmental Protection have met with the Dickinson Site Committee to explain the Open Space Acquisition Grant application. The townspeople's response to the acquisition of this parcel for public ownership and uses has been favorable. The Eastern Connecticut Environmental Review Team has been requested to evaluate the potential environmental consequence of the project. The Connecticut River Estuary Regional Planning Agency has assisted the First Selectman file the A-95 Grant Notification and will be, upon request, available to assist with the application documentation.

Zoning



DISTRICT BOUNDARIES FOLLOW LOT LINES OR EXTENSIONS THEREOF AS SHOWN ON ASSESSORS' MAP AT DATE OF ADOPTION UNLESS INDICATED BY A DIMENSION

DESCRIPTION OF THE ENVIRONMENT

PRESENT/PAST LAND USES

The site is located within the historic village of Essex. It is part of an estate owned by the Dickinson family, one of the town's early settlers. The site is in excellent condition. The present appearance of the 8.13± acres indicate that the parcel was employed for a variety of agricultural uses over the years. An old dairy barn on the site is still in good condition. The parcel was apparently divided into hay fields and pastures. One portion of the site has a variety of orchard trees and two lines of mature sugar maples extend the length of the property perpendicular to North Cove.

SOCIO-ECONOMIC CONDITIONS

The proposed acquisition is by the Town of Essex. The population of Essex is currently estimated at 5,100 (July 1, 1978). During the 1960 decade Essex grew by 845 people. An estimated 432 new dwelling units were built in town. During the first eight years of the 1970 decade the town grew 189 people (3.8%) increase. Essex actually had a negative natural increase for the 1970-75 period of -63, i.e. more deaths than births. 1970 Census's socio-economic data, analyzed by CRERPA staff, shows a profile of Essex's population as older, wealthier, professionally employed and better educated than surrounding towns. However, despite this apparent affluence there were an estimated 260 individual (70 families) and approximately eleven elderly households below the 1970 poverty level. The 1970 census recorded 85 minority people residing in Essex. Population density in 1970 was .70 persons per acre. Median 1970 age was 39.5 oldest in the region; the over 65 age group comprised 17.7% of the town's 1970 population. Essex ranked 23rd in the State in 1976 per capita income at \$6,572.

For a town of its size Essex has a broad economic base with approximately thirteen small manufacturing concerns employing 50-250 persons and two large industrial facilities which employ in excess of 500 persons. In 1975 approximately 40% (960) of the 2,410 jobs in town were devoted to manufacturing. Future population projections for Essex indicate a slow but steady growth rate. An additional 1600 persons are expected to reside in Essex by 1995, approximately 94 new people per year. The Connecticut Office of Policy and Management projects 5,700 people by 1980, 6000 by 1985, 6400 by 1990 and 6700 people by 1995.

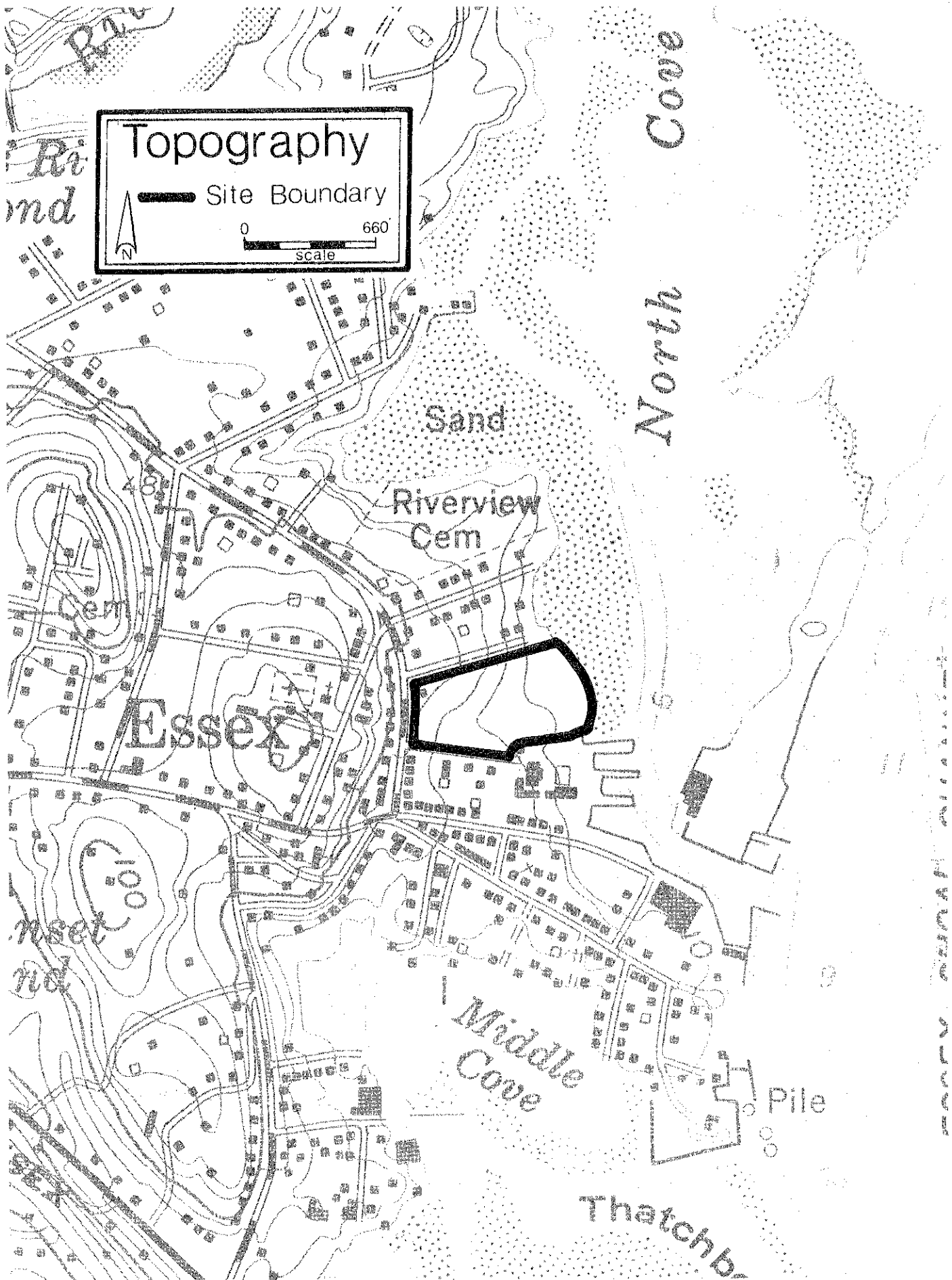

EXISTING TRANSPORTATION ROUTES

This site is located about 400 feet from the Town Square, in the Village of Essex. From a land use perspective this site has excellent locational advantages for recreational/open space uses. In addition to its walking distance to the Town business center the site is surrounded by public roads, North Main Street, Dickinson Lane and Bushnell Street; and, 430± feet of the site has frontage along the North Cove.

Topography

— Site Boundary

0 660
Scale



TOPOGRAPHIC CHARACTERISTICS

The land has no special or out-of-the ordinary topographic relief feature that distinguishes it from any other piece of property adjacent to the Connecticut River. The slope averages about 5% with the northern half being slightly more steep and the southern half being slightly less steep. The elevation ranges from just over 40 feet above mean sea level to nearly sea level along the shoreline.

SURFACE AND SUBSURFACE GEOLOGIC CHARACTERISTICS

The unconsolidated overburden lying on top of the bedrock falls into two basic categories - till which covers the western portion of the site, and glacial outwash sediments, which cover the eastern portion extending to the river. Overburden materials range from 40 feet to 60 feet in thickness with the two types, probably grading into each other with depth. In all likelihood the till typically is found underlying the outwash sediments just above the bedrock surface.

Till is a heterogenous material composed of various mixtures of boulders, gravel, sand, silt and clay-sized particles none of which are significantly sorted or stratified according to grain size. Till is that mass of materials, trapped and carried by glacial action, that remained in place after the ice melted.

Outwash sediments, in this case predominantly sand-size particles, were deposited down slope and in front of active glacial ice. This material tends to be quite well sorted by grain size and usually the range of sizes and actual size decreases with the distance from the active ice. This probably means the outwash sediments became less well sorted and probably more coarse grained with depth. Information taken, in part, from Quadrangle Report No. 31, "The Surficial Geology of the Essex and Old Lyme Quadrangles" by Richard Foster Flint, 1975.

The bedrock underlying the overburden deposits is mapped as Monson gneiss which are heterogenous quartz-feldspathic gneisses. The bulk of the Monson is termed a one-feldspar gneiss with plagioclase being this predominant mineral. No actual outcroppings of the rock are found on the property, a result of the thick overburden. Taken from Quadrangle Report No. 15, "The Bedrock Geology of the Essex Quadrangle" by Lawrence Lundgren Jr., 1964.

No mineral deposits of commercial value, bedrock or unconsolidated material, are located within or adjacent to the property.

SOILS

The soils found on the Dickinson Property fall into the following categories:

The Agawam series (69A, 69B) consists of deep, well drained soils on outwash plains and stream terraces. They formed in water deposited sands. Typically these soils have a very dark grayish brown fine sandy loam surface layer 10 inches thick. The subsoil from 10 to 25 inches is yellowish brown fine sandy loam. The substratum from 25 to 30 inches is light olive brown loamy fine sand and from 30 to 40 inches is olive fine sand. Slopes range from 0 to 35 percent. Agawam soils have moderately rapid permeability in the surface layer and subsoil, and rapid permeability in the substratum. They have few limitations for development.

WATER RESOURCES

The groundwater and the aquifer in this area are under water table conditions which follow the contour of the land surface, sloping gently toward the Connecticut River. Groundwater movement as a result of surface recharge is toward the river where it intersects and discharges to the portion of the Connecticut River which is influenced by tide.

Tidal effects of Long Island Sound on the river would result in a negative water quality impact on large quantity water producing wells placed on the property. Wells placed within the outwash material would be best for high yield, but worst in terms of water quality. Wells placed in the till overburden or bedrock would be likely to produce potable but limited quantities of drinking water.

The property has in part been included within the area subject to flooding during the one in one hundred chance frequency flood. Based on investigations by the U.S. Geological Survey that area up to the 10 foot contour line, the eastern one quarter of the property, is estimated to be susceptible to flooding.

CLIMATE

There are no climatic limitations to use of the site for passive recreation. The area is on the edge of the Connecticut coastal region and its climatic characteristics are a mixture of the coastal marine climate and the Northwestern uplands. Therefore the climate is basically mild and humid in all seasons. When low pressure weather systems bring southerly air flow (from the south) the area experiences humid maritime conditions especially in the winter and spring seasons. When high pressure systems prevail, the area experiences relatively cool dry weather which are the prevailing summer and fall season conditions.

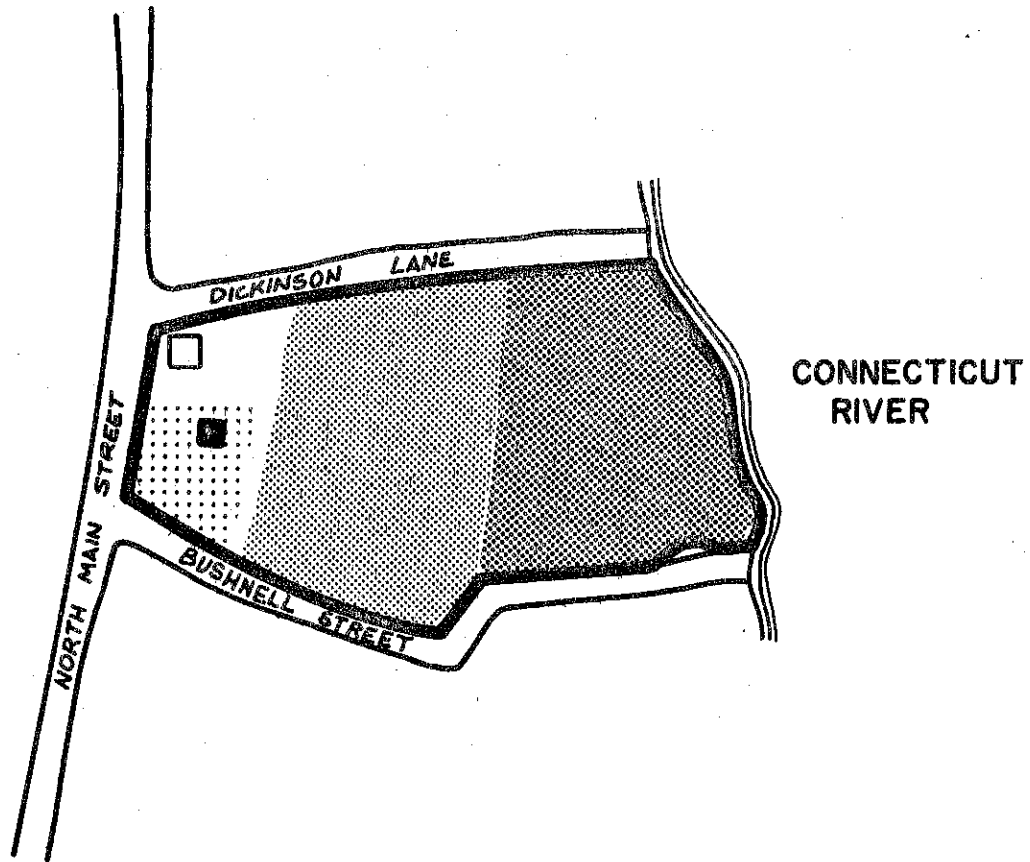
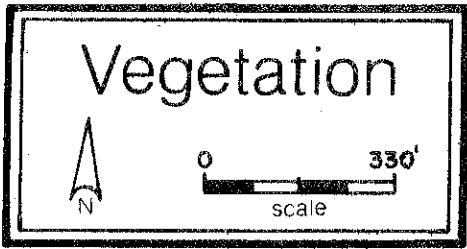
The following data was taken from the CLIMATE OF CONNECTICUT, Bulletin of the Connecticut Geological and Natural History Survey.

| | |
|--|-----------|
| Annual Mean Temperatures | 50°F |
| Probability of Winter temperatures getting below 0°F | 2 in 5 |
| Probability of Summer temperatures getting above 90°F | 2 in 5 |
| Annual Heating Degree Days | 5800 |
| Precipitation (mean annual) (relatively evenly distributed by month) | 50 inches |
| Snow Depth (mean annual) | 35 inches |

VEGETATION

This 8± acre site is typical of open field communities. Grasses and open growing shrubs are abundant as well as the common vine species found at the field's edge. Species typical of this area include orchard grass, brome grass, honeysuckle, bittersweet, clover, shagbark hickory, apple, sugar maple, rose, willow, redstem dogwood and poison ivy. A more detailed list can be found in the appendix to this report. Some ornamental plantings and evidence of fruit bearing trees indicate that the area may have at one time been used for purposes other than haying.

Approximately one and one half acres (Area 1) near the established barn is in lawn grasses and is mown. Four or more acres (Area 2) is used as a hay lot



LEGEND

- Area 1 Lawn grasses, sugar maples.
- Area 2 Open field grasses, vines, hedgerow shrubs, fruit bearing trees.
- Area 3 Vines, shrubs, young trees - open field reverting to forest growth.

and is seasonally maintained. The remainder of the site is populated by the shrubby growth which occurs after field abandonment. Hedgerows which divide these field areas are covered with viney growths of bittersweet, honeysuckle and multiflora rose.

Typical fresh water aquatic species and species typical of high ground water conditions are present at the river's edge. These include wild iris, jewelweed, and skunk cabbage.

WILDLIFE

The study area presents good wildlife habitat for small mammals and birds, however the habitat quality is somewhat impaired by its proximity to Essex village. The site is no doubt used by urban wildlife species such as skunks, raccoons, squirrels, mice, muskrats, rabbits, cats, chipmunks, seasonal songbirds and waterfowl, however none of these wildlife types were noted on the date of the field review. Intensity of development nearby restricts species mobility and feeding area.

PROBABLE FUTURE ENVIRONMENT

If this acquisition is not completed and the property is placed on the market for private use, this parcel would undoubtedly be developed for a combination of private residential/marina uses.

ENVIRONMENTAL IMPACT

QUANTIFIABLE LAND USE CHANGES

The impact of this acquisition on land use in Essex will change private ownership of 8.13± acres of unused open space to public waterfront parkland. Essex Village Center comprises a land area of approximately 200 acres. The land uses within this neighborhood are a mixture of commercial and residential uses. Currently, the only parcel of public open space within this area is an 1.8± acre site located on Main Street with access to Middle Cove. The acquisition of the Dickin-son parcel will increase the public open space within the Village to almost 10± acres. Townwide the purchase of this parcel will increase total public open space to 595± acres.

SOCIO-ECONOMIC CHANGES

No adverse effects on area residents, public services or commercial facilities will result from this acquisition. This parcel is presently taxed as farm land under Connecticut's Open Space, Farmland & Forest preferential Tax program. No substantial reduction of the Town's Grand List will result from the acquisition of this parcel.

TRANSPORTATION ROUTES

Transportation routes providing access to this parcel are adequate and can be used without causing congestion, safety problems or hazards to surrounding properties.

EFFECT ON WATER RESOURCES

Acquisition of this property should have no effect on the water resources of the site.

EFFECT ON SOLID WASTES

The anticipated uses of the Dickinson parcel are for less intensive and passive open space/recreational facilities. No substantial amount of solid wastes will be generated on this site.

EFFECT ON VEGETATION

There will be little effect on vegetation on this site from Town acquisition of the parcel. The area is currently mown and seasonally used as a hay lot.

EFFECT ON WILDLIFE

Acquisition of the property will not alter the quality of habitat on the site, however additional disturbances by humans using the site may restrict wildlife use.

MITIGATING MEASURES INCLUDED IN THE PROPOSAL

Property acquisition will not require any mitigating measures.

ADVERSE ENVIRONMENTAL EFFECTS

No adverse environmental effects have been identified.

IRREVERSIBLE COMMITMENTS OF RESOURCES

No known irreversible commitments of resources will result from this acquisition.

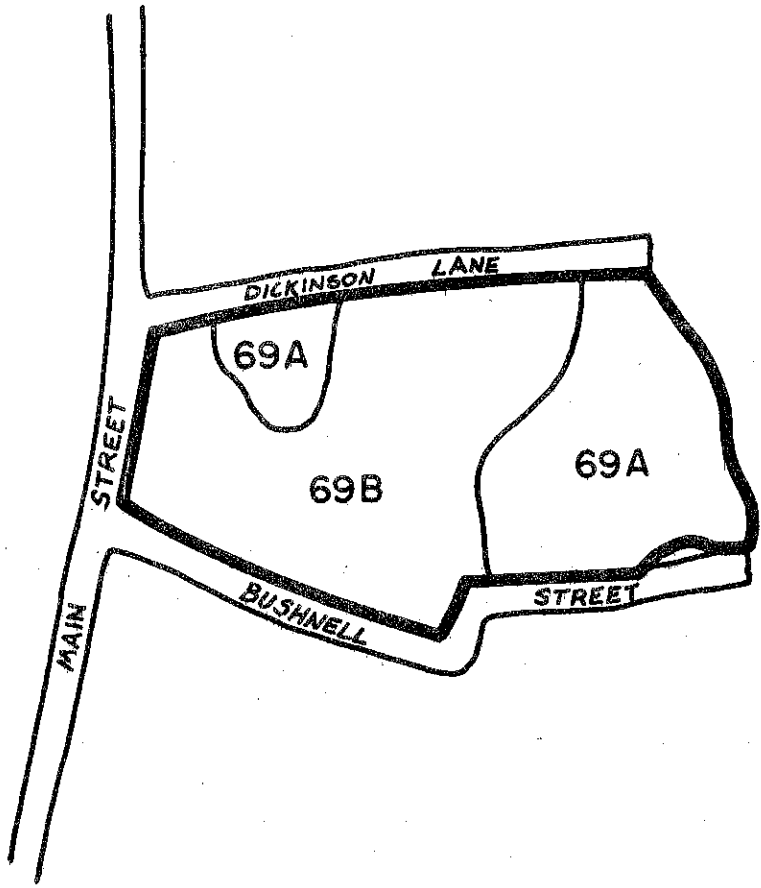
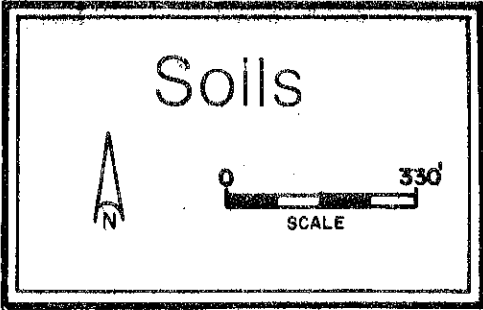
SHORT TERM VS. LONG TERM PRODUCTIVITY

If acquired the 8.13± acres of open space will reserve a beautiful parcel of waterfront land located in the historic and commercial center of Essex for future public use.

ALTERNATIVES TO THE PROPOSED ACTION

The most likely alternative to the public acquisition of the Dickinson parcel would be its purchase and development for private uses. Because 4.2± acres of this site is zoned for commercial marina uses, its high real estate value makes this portion of the site an attractive commercial investment. The balance of the site, 3.8± acres, is zoned for residential uses on 15,000 sq. ft. lots with public water. Under Essex's current Zoning Regulations it might be possible to build eight to nine single family houses. Multiple dwelling units are not permitted in the Village Residence District. "No action" by the town would result in forfeiture of an opportunity to purchase this parcel for public use.

Appendix



LEGEND

| <u>Symbol</u> | <u>Soil Name</u> | <u>Slope</u> |
|---------------|------------------------|--------------|
| 69A | Agawam fine sandy loam | 0-3% |
| 69B | Agawam fine sandy loam | 3-8% |

DICKINSON PROPERTY
ESSEX, CONNECTICUT

PROPORTIONAL EXTENT OF SOILS AND THEIR LIMITATIONS FOR CERTAIN LAND USES

| Soil Series | Soil Symbol | Approx. Acres | Percent of Acres | Principal Limiting Factor | Urban Use Limitations* | | | |
|-------------|-------------|---------------|------------------|---------------------------|------------------------|--------------------------|-------------------|--------------|
| | | | | | On-Site Sewage | Buildings with Basements | Streets & Parking | Land-Scaping |
| Agawam | 69A | 6.5 | 59 | none | 1 | 1 | 1 | 1 |
| Agawam | 69B | 4.5 | 41 | slope | 2 | 2 | 2 | 2 |

* Urban Use Limitations: 1=slight; 2=moderate; 3=severe.

SOIL INTERPRETATIONS FOR URBAN USES

The ratings of the soils for elements of community and recreational development uses consist of three degrees of "limitations:" slight or no limitations; moderate limitations; and severe limitations. In the interpretive scheme various physical properties are weighed before judging their relative severity of limitations.

The user is cautioned that the suitability ratings, degree of limitations and other interpretations are based on the typical soil in each mapping unit. At any given point the actual conditions may differ from the information presented here because of the inclusion of other soils which were impractical to map separately at the scale of mapping used. On-site investigations are suggested where the proposed soil use involves heavy loads, deep excavations, or high cost. Limitations, even though severe, do not always preclude the use of land for development. If economics permit greater expenditures for land development and the intended land use is consistent with the objectives of local or regional development, many soils and sites with difficult problems can be used.

Slight Limitations

Areas rated as slight have relatively few limitations in terms of soil suitability for a particular use. The degree of suitability is such that a minimum of time or cost would be needed to overcome relatively minor soil limitations.

Moderate Limitations

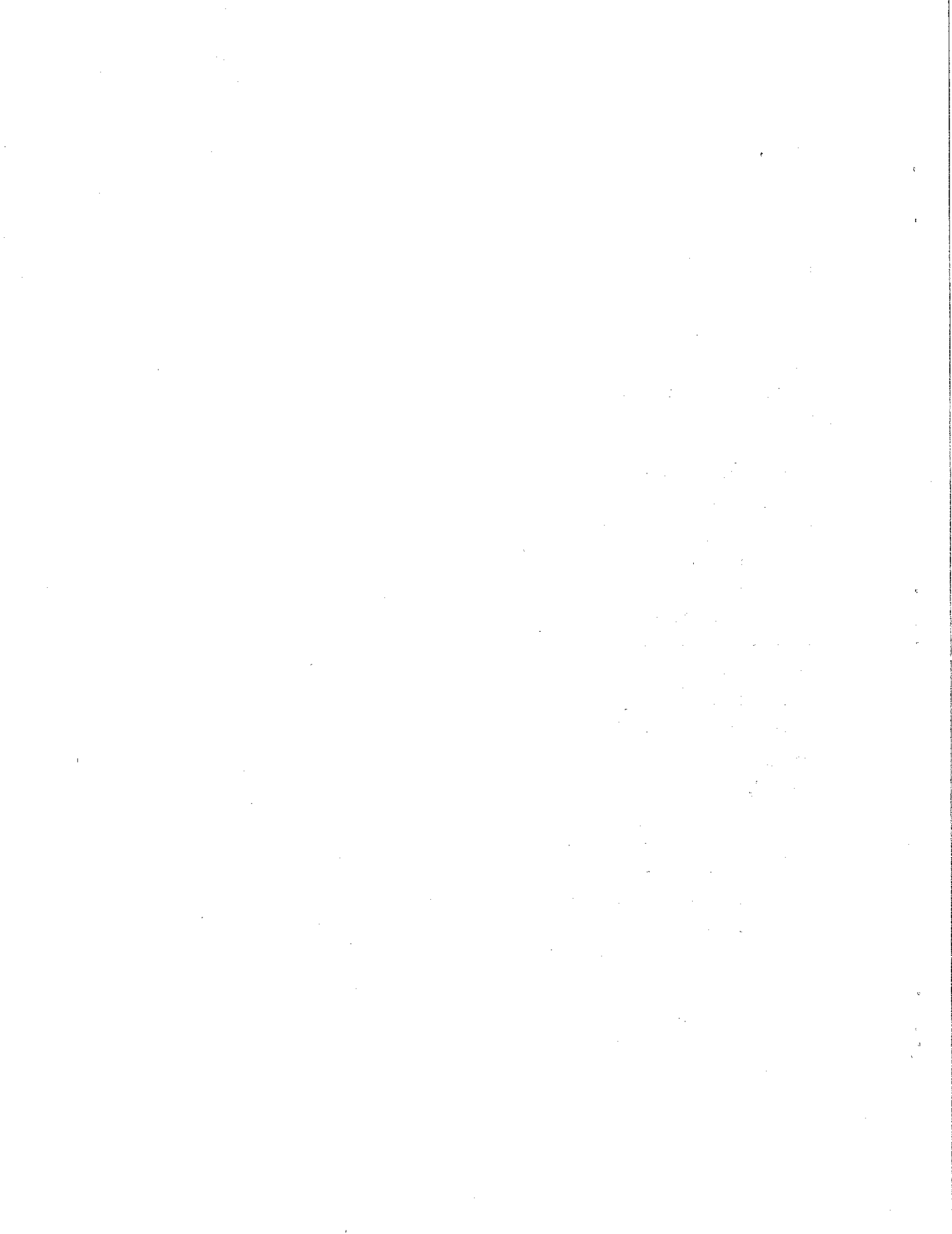
In areas rated moderate, it is relatively more difficult and more costly to correct the natural limitations of the soil for certain uses than for soils rated as having slight limitations.

Severe Limitations

Areas designated as having severe limitations would require more extensive and more costly measures than soils rated with moderate limitations in order to overcome natural soil limitations. The soil may have more than one limiting characteristic causing it to be rated severe.

VEGETATION LIST - (Species identified at the time of the field inspection.)

Apple - Malus sp.
 Arbor vitae - Arbor vitae
 arrow-arum - Peltandra sp.
 asparagus - Asparagus sp.
 barberry - Barberis sp.
 bayberry - Myrica pensylvanica
 bittersweet - Celastrus orbiculatus
 brome grass - Bromus sp.
 buttercup - Ranunculus sp.
 cinnamon fern - Osmunda cinnomomea
 clover - Trifolium sp.
 dandelion - Taraxacum sp.
 fescue - Festuca sp.
 grape - Vitis sp.
 honeysuckle - Lonicera sp.
 horsetail - Equisetum sp.
 jewelweed - Impatiens sp.
 maple - Acer saccharum
 morning glory - Ipomoea purpurea
 orchard grass - Dactylis sp.
 panic grass - Panicum sp.
 pear - Pyrus sp.
 poison ivy - Rhus toxicans
 poverty grass - Danthonia spicata
 raspberry - Rubus sp.
 red stem dogwood - Cornus racemosa
 rose - Rosa multiflora
 shagbark hickory - Carya ovata
 sheep sorrel - Rumex acetosella
 vetch - Coronilla varia
 Virginia creeper - Parthenocissus quinquefolia
 wild iris - Iris versicolor
 willow - Salix multiflora



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.

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, and a statement identifying the specific areas of concern the Team should address. When this request is approved by the local Soil and Water Conservation District and the 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 Jeanne Shelburn (889-2324), Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, 139 Boswell Avenue, Norwich, Connecticut 06360.

