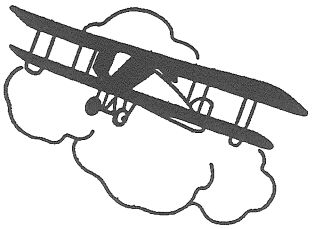

Bethany Airport Property

Bethany, Connecticut

King's Mark Environmental Review Team Report

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

Bethany Airport Property

Bethany, Connecticut

April 1993

Environmental Review Team Report

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

Haddam and Wallingford, Connecticut

for the

Bethany Planning and Zoning 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 Commissions 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.

Acknowledgements

The King's Mark Environmental Review Team Coordinator, Elaine Sych, would like to thank and gratefully acknowledge the following Team members whose professionalism and expertise were invaluable to the completion of this report.

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I would aslo like to thank Skip Borgerson, the Chairman of the Planning and Zoning Commission and Robert Brinton, the Assistant Zoning Enforcement Officer and Town Historian, for their cooperation and assistance during this environmental review.

Table of Contents

Executive Summary

Introduction

The Bethany Planning and Zoning Commission have requested an environmental review for the town owned Airport Property. The ±126 acre site is located on Route 63 (Amity Road). The property was at one time an airport, but the town has owned the property for more than 20 years. The current uses of the site include: the town garage in an old hanger, a recycling cneter, a field used as a soccer field, a horse ring and some trails. The site is a combination of open fields, wooded wetlands and forest. Most of the site is in a public water supply watershed, and there is no public water or sewer available to the site.

A study committee is creating a master plan for the use and development of the site. Possible uses include: open space, trails, athletic fields, fire house, new town garage, reclycling center, horse show/fairground/carnival-type activities, and a SNET cellular tower.

The town is concerned with the possible environmental impacts of the various proposed uses, an inventory of the natural resources, and recommendations on land use.

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.

Geology and Geologic Limitations to Development

The Bethany Airport Property consists of a fairly flat-topped glacially streamlines hill with rather gentle northeast and southwest slopes and only slightly steeper northwest and southeast slopes. Most of the area is covered with compact till. The till is stony and locally compact. The compactness of the till affects the drainage, especially in the southwestern area, which can be seasonally wet and poorly drained for long periods of the year.

Several bedrock outcrops are exposed. The bedrock consists of two types of granitic gneiss, the Prospect Gneiss and the Ansonia Gneiss. Neither gneiss is highly fractured, and the bedrock surface beneath the till is probably of low permeability to groundwater. Where bedrock is close to the surface it will make those areas wet and poorly drained.

Seasonal wetness and thin soils are the only geologic limitations to development that were noticed. Deep cuts in the grade of the parcel may encounter bedrock which could result in the need to remove and dispose of large stones. A seasonal high water table may also be encountered in some areas.

Soil Resources

Soils within the parcel as described in the New Haven County Soil Survey have developed in glacial till. The soils limitations of these soils for a variety of land uses are described in two soils limitations tables. In general, the Paxton and Charlton soils on the more moderate slopes will present the fewest and most easily overcome obstacles to any of the land uses currently proposed.

Inland Wetland Resources

The wetlands on the site are forested deciduous swamps which are part of a larger wetland system in the Hop Brook watershed. The soils in this area are poorly suited for community development due to a seasonal high water table and stoniness.

It is recommended that any future use that involves earth moving for construction be concentrated in the previously disturbed areas. Acceptable uses for the wetlands includes footpaths with elevated boardwalks over wetland areas. In upland areas the trails should be maintained with bark mulch to facilitate drainage.

Any plans for development should include a detailed erosion and sediment control plan. A combined use of the property involving development of the previously disturbed upland areas for town facilities and maintenance of the wetland and forested area for open space seem to be acceptable uses for the property.

Certain precautions should be taken when developing property located in a public water supply watershed.

The Natural Diversity Data Base

According to the information available there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species occurring at the site. Immediately to the north of the site is the Bethany Bog, a significant wetland owned by Yale University. Any impact to this wetland, including proposed stormwater discharge, should be carefully considered and avoided if possible.

Forest Resources

Most of the property is forested and consists of trees with diameters ranging from 6 to 10 inches. It is a mix of species that is typical of a relatively young forest which has regenerated on abandoned fields. Species include: red maple, gray birch, red cedar, red oak, and occasional overtopped old apple trees. A small stand of white pines exists in a northwestern corner of the property.

Many of the trees are of low quality as far as their value for potential sawtimber. Their only use for forest products would be for firewood. With good access the potential for a cordwood cutting program exists. Parts of the woodland would benefit from a thinning of the poorer quality trees.

Predominant trees in the wetland area are red maples with an understory of spicebush. These are also of poor quality for sawtimber.

The old apple trees could be released from the shade of adjacent trees and pruned so they could produce additional food for wildlife. The potential also exists for the development of a nature trail with interpretive stations. It is recommended that the boundary lines of the property be clearly marked with signs or paint on the trees.

Recreation Planning Comments

Bethany lacks the village center typical of many New England towns, but it does possess a concentration of municipal properties on or adjacent to a mile and half stretch of Route 63 in a relatively central location in town. The Airport Property will give the town an excellent opportunity to intensify it's concentration of town facilities which will strengthen the sense of community in Bethany.

Most improvements should be concentrated on the nearly level to gently sloping open land along and to the west of Route 63. This area offers good access and the fewest constraints. Property in the wooded southern/southwestern portion of the site has serious site limitations which include wetlands and stony soils.

Special recommendations include:

1) Development of a new town garage and/or fire station along/adjacent to Rt.63;
2) Development of 2-3 multi-use ballfields;
3) Consideration of moving the transfer/recycling station to a location next to the proposed new town garage, closing off part of the existing access road to prevent traffic in the ballfields area; or if a move is too controversial, then vegetative screening is recommended to mask its visual impact;
4) Development of non-motorized trails in the wooded portions of the site is acceptable with wetland crossings limited to existing former farm road causeways or constructing "bog bridge/puncheon" crossings for foot trails.

Planning Comments

The Airport Property does not have the needed infrastructure (public water, sewer, roadway improvements) available to make the property a viable site for any major industrial development or research park at this time. The site is further constrained by being within a public water supply district. The residents at this time do not favor industrial development and would like to see the site used for municipal services and recreation.

According to the State Policies Plan for Conservation and Development the Airport Property is depicted as a conservation area due to the need for protection of the public water supply. The draft South Central Regional Plan of Development recommends limited growth and low density of development in areas like Bethany due to environmental constraints.

The Town of Bethany is the only town in the south central region which may be described as rural. The population growth rate is projected to remain low due to several factors. The age distribution of the town does indicate that two age groups (5-14 and 35-49) are higher than the state average and may require special recreational opportunities such as soccer, baseball and softball.

The Airport Property can serve several recreational needs as well as providing for an opportunity to consolidate municipal services. There are almost 5000 acres of open space in the town and the South Central Connecticut Water Authority owns the majority of it. The combination of large land holding by the water authority and low density residential development would seem to balance the need for large amounts of open space to be retained by the town.

It may be advantageous to locate the town garage/public works/recycling center/fire station in one portion of the site, possibly in the northern end. The present location of the garage and stockade would seem to be a good location for a multi-purpose playing field, and most of the rest of the site, excluding the rocky, wet terrain in the southeast portion, would also appear to be adequate for playing fields. Multi-purpose trails could be designed in the southwest portion of the site and linkage to other trail easements and possible roadway access to eventually connect with the Blue Trail system and Naugatuck State Forest should be investigated.

The possibility of clustering the communications towers along Route 63 (including the proposed Southern New England (SNET) cellular tower) should be examined. The SNET cellular tower on the property (in the location shown to the ERT) should not cause any conflict with other uses (with the exclusion of kite flying close by), and could provide some money to be placed in a special dedicated fund.

An overall master plan that will allow for compatible use of recreational opportunities and public service facilities can be designed. The development of the site could be phased based on the immediate needs of the community. The Airport Property Study Committee may want to investigate whether any graduate schools in the area might be willing to take on the conceptual site plan design as a student project.

Archaeological Review

The Office of State Archaeology strongly recommends an archaeological survey to identify and preserve any cultural resources proposed for active land use development. Eight archaeological sites are known to exist immediately adjacent to the Airport Property, which has the potential of yielding additional cultural resources. It is also recommended that the town consult with David Thompson, president of the Greater New Haven Archaeological Society and the Office of State Archaeology to provide technical assistance on the preservation and protection of any archaeological sites that may be on the property.

Introduction

The Bethany Planning and Zoning Commission have requested an environmental review for the town owned Airport Property.

The Airport Property is a ±126 acre site located on Route 63 (Amity Road) and Fairwood Road. As the name implies the property was at one time a small airport. The town has owned the site for more than twenty years, and originally the town envisioned the use of the site for an industrial park. Two of the proposed industrial lots were sold off many years ago. The concept of the industrial park has been dropped, and the town is studying the property for multiple uses including municipal buildings and recreation.

The main access is from Route 63. An old metal hanger building is currently being used as the Town Garage. The recycling center is also located on the property. Two large field areas are mowed, one is used as a soccer field. A horse ring and announcer's tower also occupy a small portion of the site. A large area of the site is forested wetlands and the remainder is wooded. Trails lead through these areas. Most of the property is in a public water supply watershed area and there is no public water or sewer available to the site.

A study committee has been formed to develop a master plan for the use and development of the site. Possible uses being considered are open space, recreational trails, athletic fields (soccer and softball), fire house, new town garage and recycling center and horse show and fairground activities with or without a pavilion. Southern New England Telephone is interested in installing a 150 foot cellular communications tower on a 100' x 100' portion of the site.

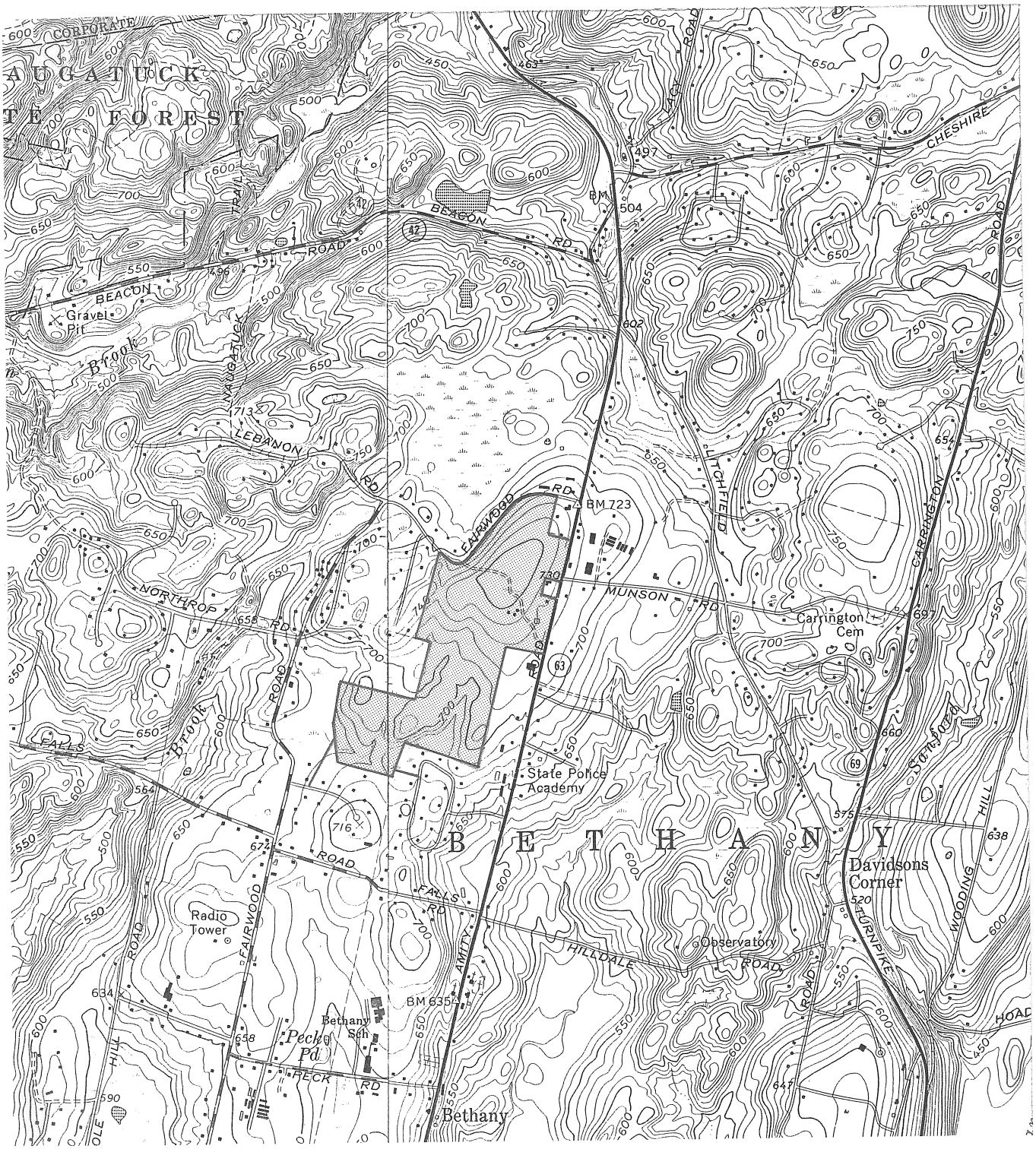
The study committee is concerned with the environmental impacts of the various proposed activities, particularly the suitability of the soils for the proposed uses, the effects of the various uses on the wetlands and other resources, and recommendations concerning best land use.

The primary goal of the ERT is to inventory natural resources of the site and to provide planning information.

Location Map

Scale 1" = 2000'

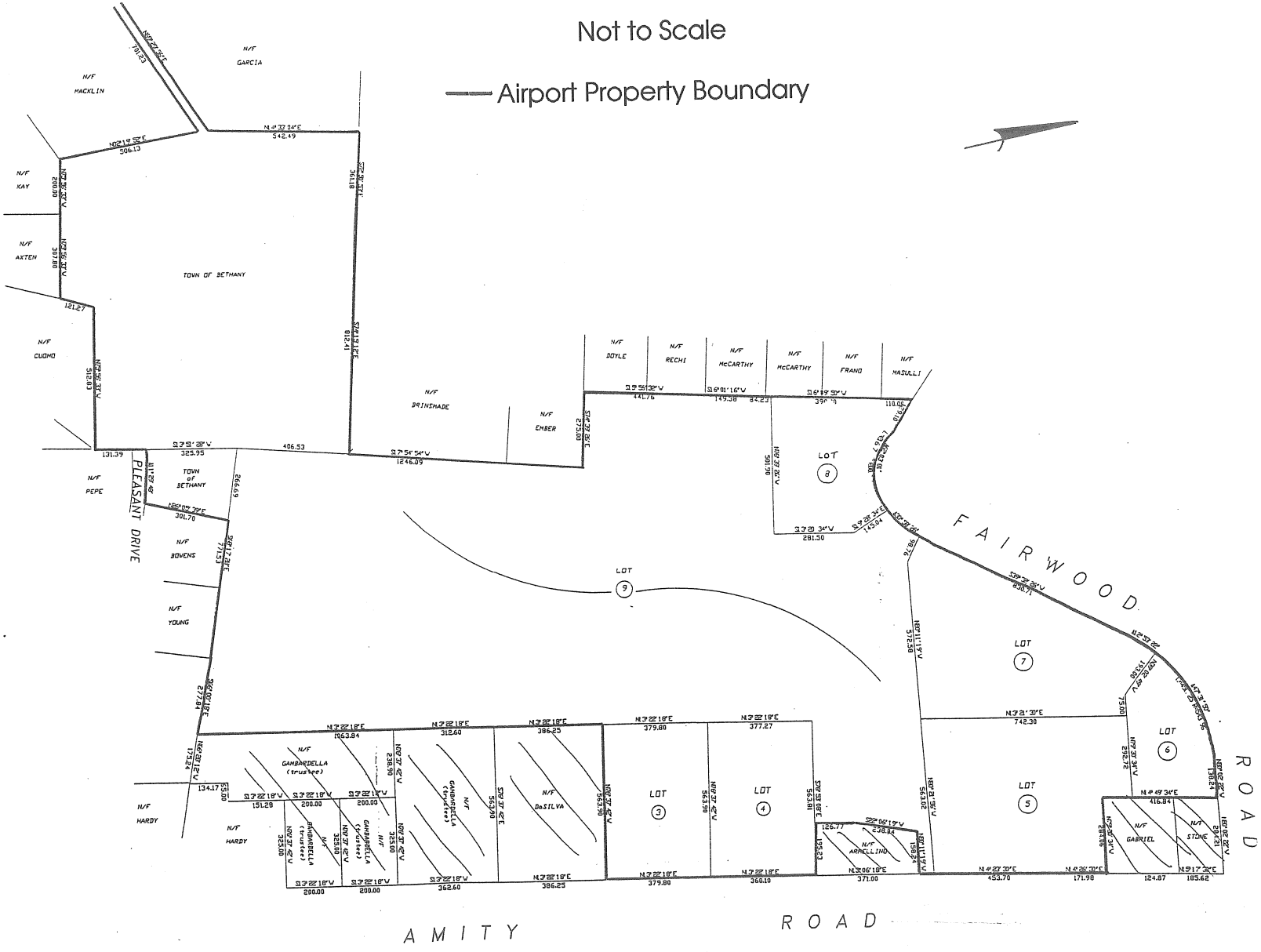
General Site Location



Airport Property

Not to Scale

Airport Property Boundary



The ERT Process

Through the efforts of the Planning and Zoning 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 involved both literature and field research. The ERT field review took place on February 9, 1993. 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 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.

Geology and Geologic Limitations to Development

The Bethany Airport property consists of a fairly flat-topped glacially streamlined hill with rather gentle northeast and southwest slopes and only slightly steeper northwest and southeast slopes. The terrain is typical of the eastern part of Connecticut's Western Highland physiographic province. Most of the area is covered with a compact glacial till that probably is everywhere less than 10 ft. thick. Several bedrock outcrops, as mapped by both Fritts (1963) and Flint (1961), are exposed through the till. Bedrock was observed during the ERT field review in the southwestern area and along an abandoned road in the northern part of the property. (See Geologic Map)

Bedrock consists of two varieties of granitic gneiss (Carr, 1969; Fritts, 1963). The Prospect Gneiss underlies most of the area. It is a coarsely to medium-crystalline, well foliated (layered), light gray granodiorite gneiss. It is composed of two types of feldspar, quartz and mica. Ansonia Gneiss intrudes the Prospect Gneiss at several small areas. It is slightly more resistant to erosion and forms very slight nobs along and adjacent to the southern border of the property. The Ansonia Gneiss is a medium-grained well foliated very pale bluish gray granite composed of quartz, feldspar and biotite mica. Neither gneiss is highly fractured and the bedrock surface, buried under glacial till, is probably of low permeability to groundwater. Water will run off the bedrock rather than easily infilter, making areas wet and poorly drained where bedrock is close to the surface.

Glacial till covers the area. It is stony and locally compact. The compactness of the till affects drainage of large areas, especially in the northwestern area, because it is of low permeability. Thus many areas are seasonally wet and poorly drained for long periods of the year.

Geologic Limitations

Seasonal wetness and thin soils are the only geologic limitations to development that were noticed. Deep cuts in the grade of the parcel may encounter bedrock and likely will result in numerous large stones that will need disposal. In addition, a seasonal high water table may be encountered in some locations. No geologic resources require protection or conservation on this parcel. Large, relatively flat open fields might be considered a resource. Woodland is

currently encroaching the existing fields. Future use of this parcel could benefit from cutting back some of the woods.

References

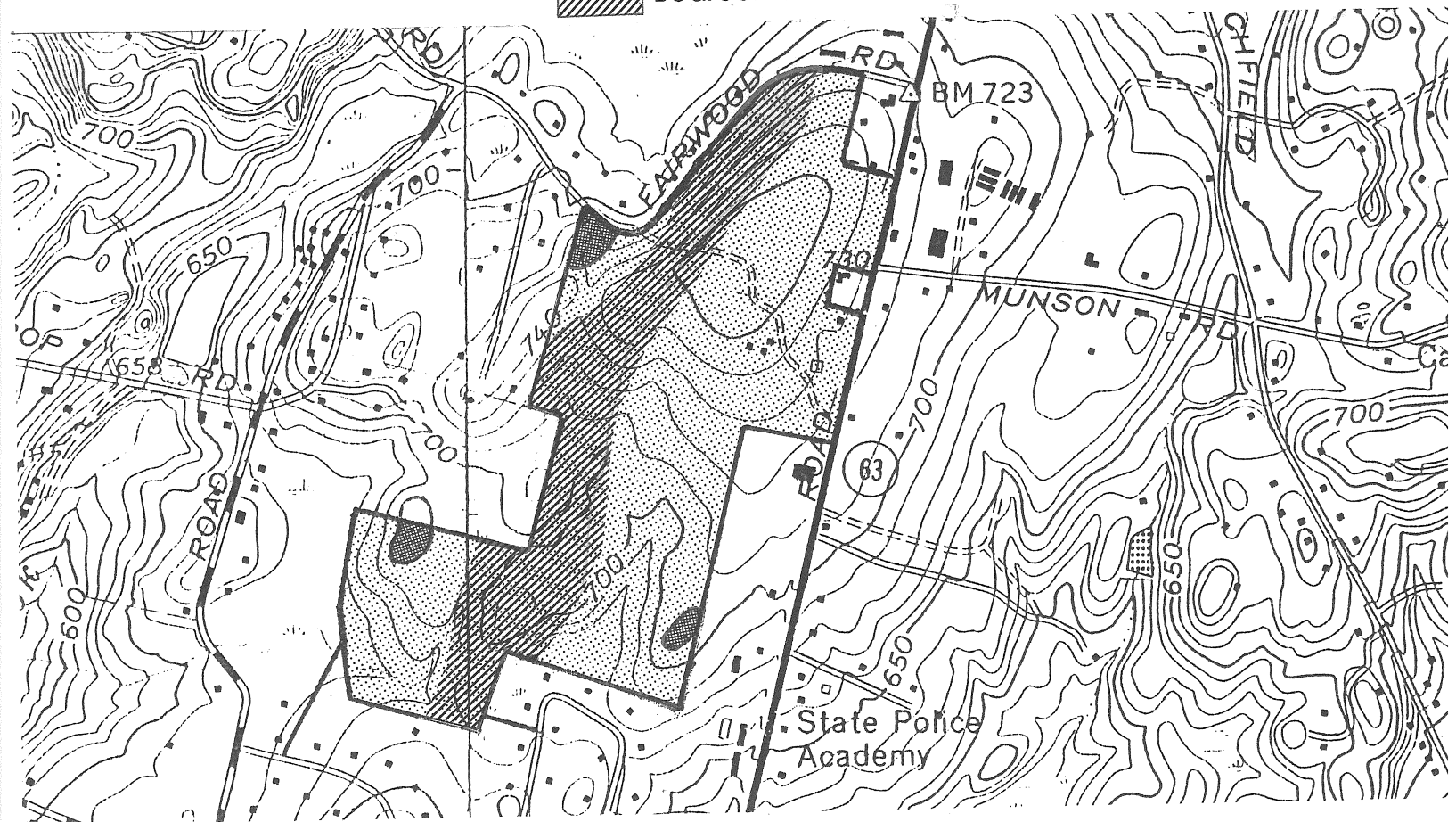
Carr, M.H., 1960, Bedrock Geology of the Naugatuck Quadrangle, CT. Conn. Geol. and Nat'l. Hist. Surv., Quadrangle Report #9.

Flint, R.F., 1961, (Surficial) Geologic Map of the Mount Carmel Quadrangle, CT. U.S. Geol. and Nat'l. Hist. Surv., Quadrangle Report #12, plate 1.

Fritts, C.E., 1963, Bedrock Geology of the Mount Carmel Quadrangle, CT. U.S. Geological Surv., Quadrangle Map GC-199.

Geologic Map

Scale 1" = 1000'



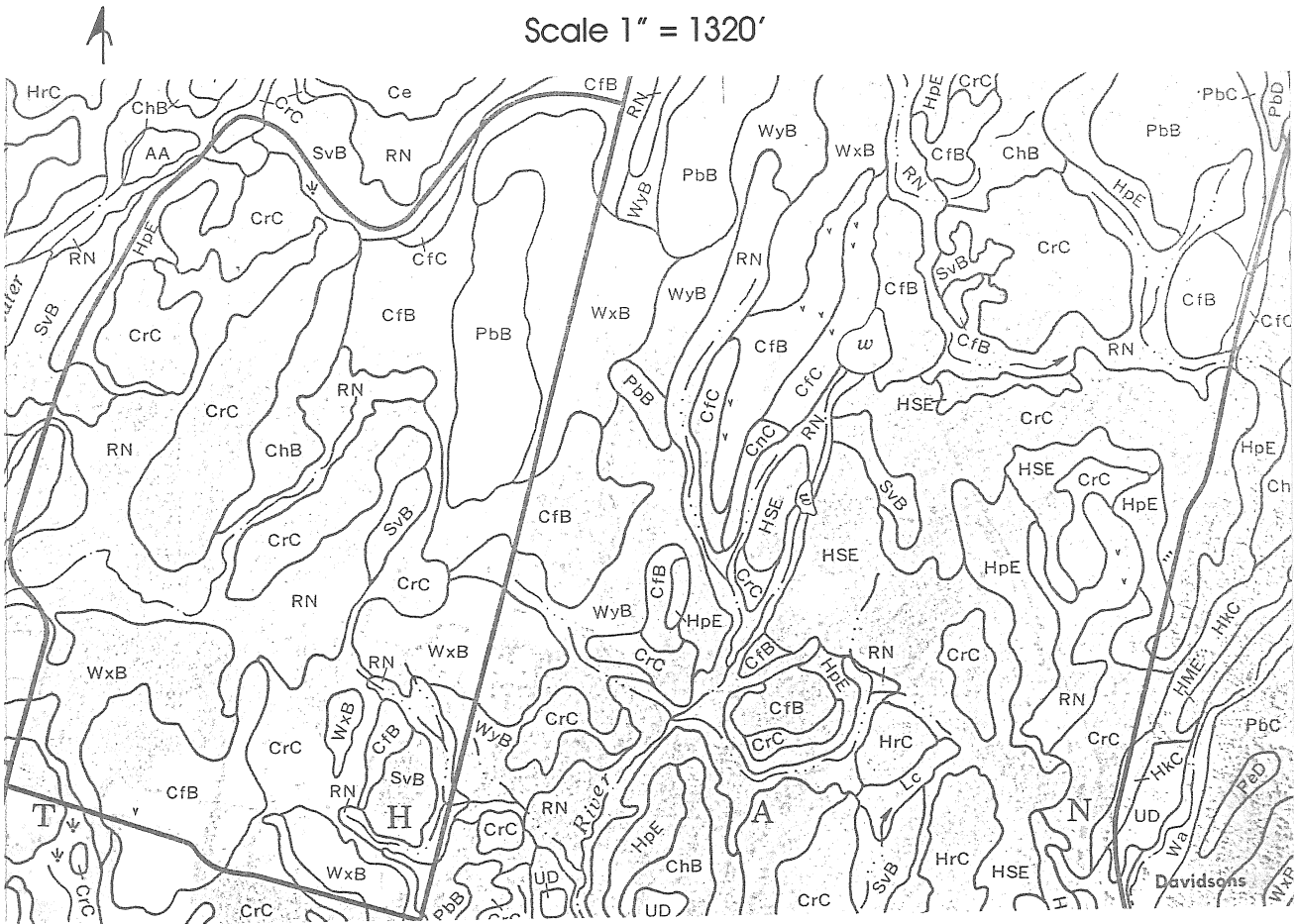
Soil Resources

Soils within this parcel, as described in the New Haven County National Cooperative Soil Survey, have developed in glacial till derived from schist and gneiss. The Paxton and Woodbridge soils, found primarily on the drumlin-shaped hill in the eastern portion of the property along Route 63, have developed in compact glacial till. The poorly drained Ridgebury and very poorly drained Whitman soils, observed at lower elevations within the parcel, have also developed in compact loamy glacial till. Soils on much of the remainder of the property have formed in similar glacial till parent material but lack the compact subsoil horizon; these are properly classified within the Charlton, Sutton and Leicester soil series. Hollis oils can be found in areas where the depth of overlaying glacial till is more shallow over bedrock.

The limitations of on-site soils for a variety of land uses are described in detail in the following tables. Please see page 72 of the Soil Survey of New Haven County for a more thorough discussion of land use limitations. In general, the Paxton and Charlton soils on the more moderate slopes will present the fewest and most easily overcome obstacles to any of the land uses currently under consideration.

Soils Map

Scale 1" = 1320'



Soil Interpretation Charts

Map Symbol	Soil Name	Lawns, Landscaping, and Golf Fairways	Camp Areas	Picnic Areas	Playground	Paths and Trails
CfB	Charlton	Slight	Slight	Slight	Moderate, slope, small stones	Slight
CfC	Charlton	Moderate, slope	Moderate, slope	Moderate, slope	Severe, slope	Slight
ChB	Charlton	Moderate, large stones	Moderate, large stones	Moderate, large stones	Severe, large stones	Slight
CrC	Charlton	Moderate, large stones, slope	Severe, large stones	Severe, large stones	Severe, large stones, slope	Slight
	Hollis	Severe, depth to bedrock	Severe, large stones, depth to bedrock	Severe, large stones, depth to bedrock	Severe, large stones, slope, depth to bedrock	Slight
PbB	Paxton	Slight	Moderate, percs slowly	Moderate, percs slowly	Moderate, slope, small stones	Slight
Rn	Ridgebury	Severe, wetness	Severe, large stones, wetness, percs slowly	Severe, large stones, wetness percs slowly	Severe, wetness, large stones, small stones	Severe, wetness
	Leicester	Severe, wetness	Severe, large stones, wetness	Severe, wetness, large stones	Severe, large stones, small stones	Severe, wetness
	Whitman	Severe, large stones, ponding	Severe, large stones, wetness	Severe, large stones, wetness	Severe, ponding, large stones	Severe, ponding
SvB	Sutton	Moderate, wetness	Moderate, wetness	Moderate, wetness	Moderate, slope, small stones	Moderate, wetness
WxB	Woodbridge	Moderate, wetness	Moderate, wetness	Moderate, wetness	Moderate, slope, small stones	Moderate, wetness

Slight: means that the soil properties are generally favorable and that the limitations are minor and easily overcome.

Moderate: means that the limitations can be overcome or alleviated by planning, design, or special maintenance.

Severe: means that soil properties are unfavorable and that limitations can be offset only by costly soil reclamation, special design, intensive maintenance, limited use, or by a combination of these measures.

Soil Limitations Charts Continued

Map Symbol	Soil Name	Septic Tank Absorption Fields	Shallow Excavations	Dwellings Without Basements	Small Commercial Buildings	Local Streets and Roads
CfB	Charlton	Slight	Slight	Slight	Moderate, slope	Slight
CfC	Charlton	Moderate, slope	Moderate, slope	Moderate, slope	Severe, slope	Moderate, slope
ChB	Charlton	Slight	Slight	Slight	Moderate, slope	Slight
CrC	Charlton	Moderate, slope	Moderate, slope	Moderate, slope	Severe, slope	Moderate, slope
	Hollis	Severe, Depth to bedrock	Severe, depth to bedrock	Severe, depth to bedrock	Severe, slope, ddepth to bedrock	Severe, depth to bedrock
PbB	Paxton	Severe, percs slowly	Moderate, dense layer, wetness	Moderate, wetness	Moderate, wetness, slope	Moderate, wetness, forst action
Rn	Ridgebury	Severe, percs slowly, wetness	Severe, wetness	Severe, wetness	Severe, wetness	Severe, wetness, frost action
	Leicester	Severe, wetness	Severe, wetness	Severe, wetness	Severe, wetness	Severe, wetness, frost action
	Whitman	Severe, percs slowly, ponding	Severe, ponding	Severe, ponding	Severe, ponding	Severe, frost action, ponding
SvB	Sutton	Severe, wetness	Severe, wetness	Moderate, wetness	Moderate, wetness, slope	Severe, frost action
WxB	Woodbridge	Severe, wetness, percs slowly	Severe, wetness	Moderate, wetness	Moderate, wetness, slope	Severe, frost action

Slight: limitation indicates that soil properties generally are favorable for the specified use and that limitations are minor and easily overcome.

Moderate: limitation indicates that soil properties and site features are unfavorable for the specified use, but limitations can be overcome or minimized by special planning and design.

Severe: limitation indicates that one or more soil properties or site features are so unfavorable or difficult to overcome that a major increase in construction effort, special design, or intensive maintenance is required. For some soils that are rated severe, costly measures may not be feasible.

Inland Wetland Resources

The wetlands on the town property are part of a larger wetland system in the Hop Brook watershed. The wetlands are forested deciduous swamps containing the soil group (Rn), Ridgebury, Leicester, and Whitman extremely stony fine sandy loams, according to the New Haven County Soil Survey. This soil group consists of nearly level to gently sloping poorly drained soils. The soils in this unit are poorly suited for community development due to the seasonal high water table and the degree of stoniness.

Since a large portion of the site has already been disturbed, it is recommended that any future use that would involve construction of buildings or any earth moving activities be concentrated in the previously disturbed area. An acceptable use in the wetlands would be the addition of foot paths. An elevated boardwalk crossing of a wetland area would be the least damaging physical impact. In upland areas, regularly maintained bark mulch trails would provide a more natural look than paved paths. Bark mulch would also facilitate drainage on the trails.

Most often, the damaging impacts to wetlands occur when appropriate erosion and sediment controls are not properly installed before construction, and maintained during construction. Any plans for development should include a detailed erosion and sediment control plan which 1) includes a construction sequence, 2) describes the methods for controlling erosion, 3) provides a schedule for inspecting and correcting failed erosion control methods, and 4) lists the individual(s) responsible for maintaining the erosion control measures.

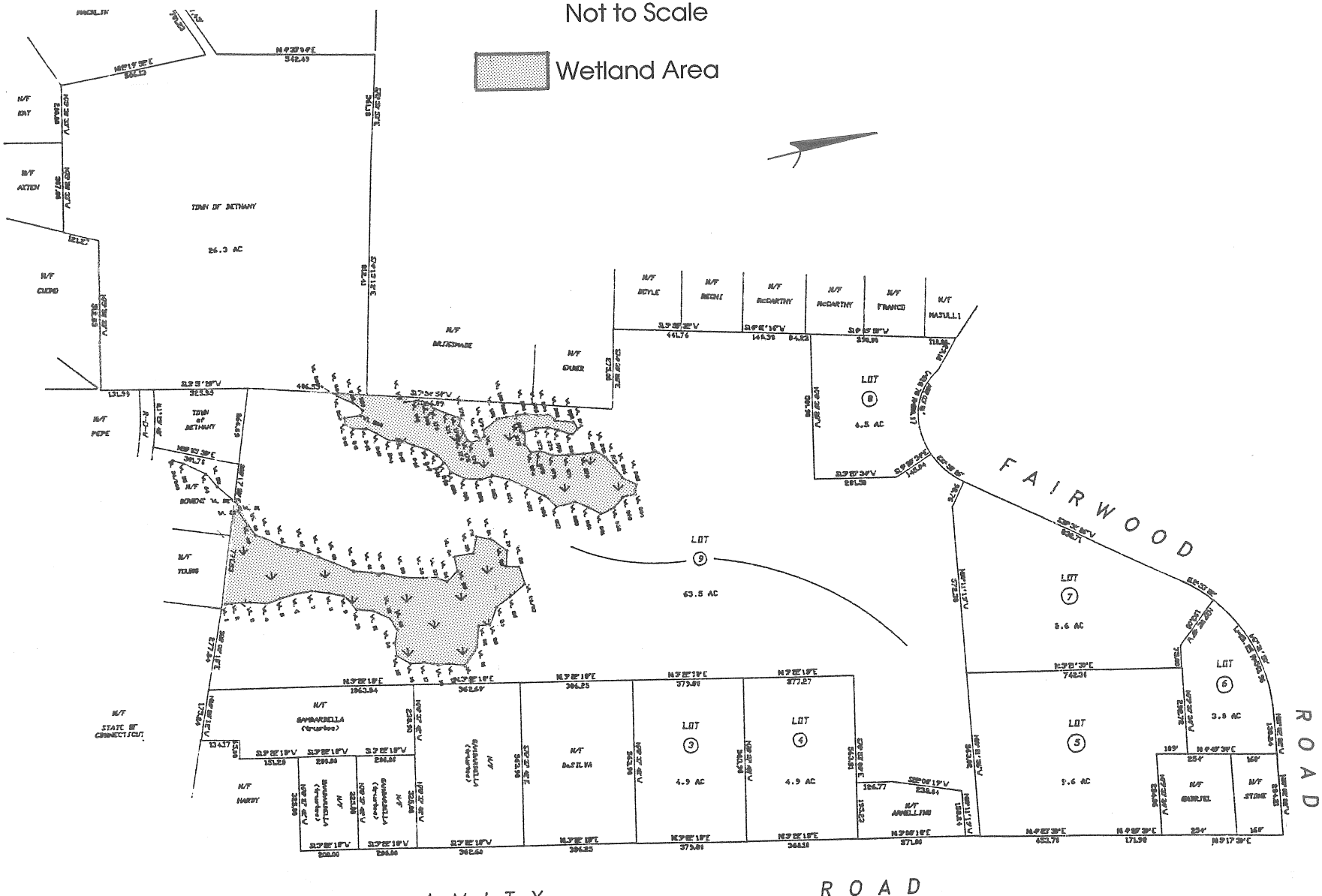
A combined use of this property involving development of the previously disturbed upland area for a fire house, recycling center or town garage and maintenance of the wetlands and associated forested areas as open space appear to be acceptable uses for this site.

The site offers a good opportunity for the town to provide recreation and open space for its citizens. Acceptable recreational uses of the property may include athletic field(s) with associated parking and concession stands, concentrated in the upland portion of the property, combined with nature trails through forested areas.

Certain precautions should be taken when developing property located in a public water supply watershed. For further information you may want to contact Robert Hust of DEP's

Bureau of Water Management Planning and Standards Division at 566-7049. A useful publication from the DEP Natural Resources Center (566-3540) is "Carrying Capacity of Public Water Supply Watersheds" which provides much of the inforamtion necessary to make land use decisions regarding the type and density of development within public water supply watersheds.

Wetland Boundary Map



Forest Resources

Most of the property (approximately 89 acres, as scaled from an aerial photo, not a survey) is forested, consisting primarily of poletimber (trees with diameters ranging from 6 to 10 inches), which probably seeded in when the airport was discontinued in the early 1960's. Species include red maple, black cherry, gray birch, red cedar, red oak, and occasional overtopped old apple trees. This mix of species is very typical for a relatively young forest which regenerated on abandoned fields.

Many of the trees are of very low quality as far as their value for potential sawtimber because of severe sweep and forked trunks. Their only use for forest products would be for firewood. Because access is very good, there would be potential for a cordwood cutting program for the town residents if there is enough interest. Parts of the woodland would benefit from a thinning to remove the poorer quality trees and make room for the trees with better growth potential. There is also a small white pine plantation (about 1.5 acres) in the northwest corner of the parcel that appears to be about 60 years old.

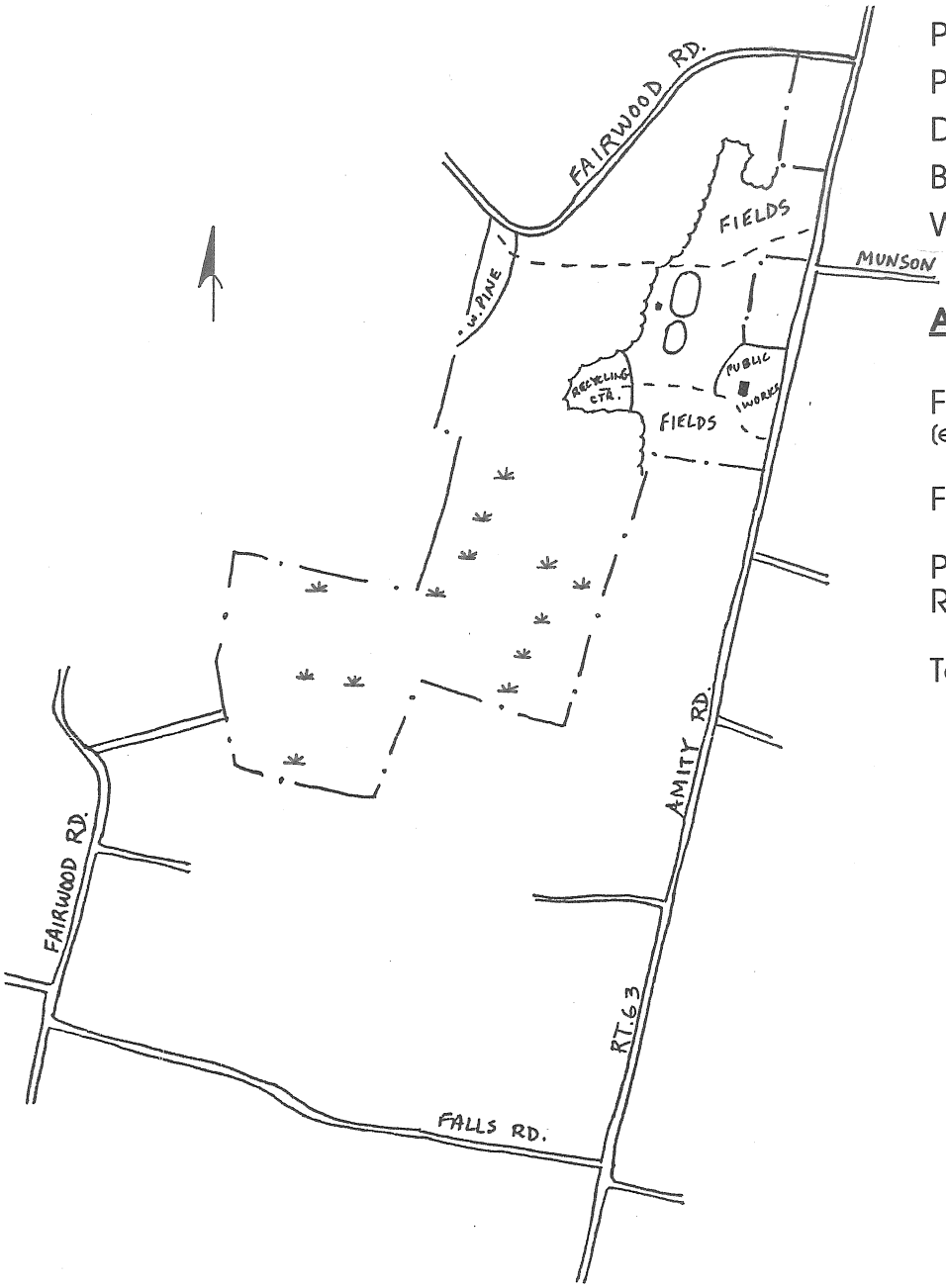
There are inland wetlands on the property. The predominant trees are red maples, with an understory of spicebush. The trees are somewhat larger than in the surrounding uplands, but again are of poor quality for potential sawtimber.

In conclusion, the forests in both the upland and wetland areas are dominated by red maple, a species of relatively low value for timber and wildlife, but high value in terms of fall foliage. There is potential for a cordwood cutting program if there is sufficient interest by residents. The old apple trees could be released from the shade of adjacent trees and pruned to produce apples and additional food for wildlife. There is also potential for a nature trail with interpretive stations to describe the various kinds of flora and fauna found on the property.

One final recommendation is that the boundary lines should be clearly marked on the ground by putting up signs or painting trees along the property lines.

Acreage Description Map

Scale 1" =1000'



Property Boundary Line (Approx.)

Paved Road

Dirt Road

Building

Wetlands

Acreage Descriptions (Approx.)

Fields (excluding Pulic Works and Recycling)	20.1 acres
Forest	88.6 acres
Public Works & Recycling	4.5 acres
Total	±113.2 acres (scaled from aerial photo)

The Natural Diversity Data Base

The Natural Diversity Data Base maps and files regarding the Airport Property have been reviewed. According to our information, there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species occurring at the site in question. However, immediately to the north is Bethany Bog, a significant wetland consisting of an Atlantic White Cedar swamp and a central bog. This wetland is owned by Yale University which has been active in the conservation/protection of the site for many years. In this regard, any impact to this wetland, including proposed stormwater discharge into this wetland should be carefully considered and avoided if possible.

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. Such new information is incorporated into the Data Base as it becomes available.

Recreation Planning Comments

Ideally from a planning and design standpoint a community should have a recognized center incorporating many/all of its civic and institutional properties. This is particularly true of small, rural towns which have need only for one focal point rather than the center plus satellite neighborhood centers more appropriate in communities with greater population and complexity.

Bethany lacks the village center typical of the prototype New England town. Nevertheless it does possess a concentration of civic and institutional properties on or adjacent to a mile and a half stretch of Route 63 between Peck and Fairwood Roads in a relatively central location in the community. The location of the Bethany Airport Property within this area offers the town an opportunity to intensify this central civic core and strengthen the sense of community within Bethany.

Regarding the potential use of the Airport Property, it is clear that most improvements should be concentrated on the nearly level to gently sloping open land along and to the west of Route 63. Despite some hardpan soil constraints, this area offers ready access and the greatest potential for development and the fewest constraints. Conversely most of the wooded southern/southwestern half of the property has serious site limitations in terms of extensive wetlands, stony soils, and the expense of land clearance and access road development.

Special recommendations include:

1. Development of a new town garage and fire station along or immediately adjacent to Route 63.
2. Development of 2-3 ballfields without fences to permit multiple-sport use as well as use for civic events. One could be located southerly of the present access road to the transfer station and the other(s) to the north. If laid out in an east-west orientation, perhaps grading costs could be minimized.
3. Consideration of moving the transfer station to a location adjacent to the proposed new town garage, especially to prevent a mix of vehicular and pedestrian traffic in the ball field area. Indeed closing off part of the existing access road to prevent any vehicular

traffic in the playfield area should be considered. However, if relocation of the transfer station to a site within sight of Route 63 or Fairwood Road is deemed too controversial, it may have to remain where it presently is, with vegetative screening recommended to mask its visual impact.

4. Management of the wooded remainder of the property as undeveloped open space, serving as buffer between the intensively-used portions of the property and abutting residential areas to the south, west, and north. Development of nonmotorized trails would be an acceptable use in nonwetland areas of this acreage, with wetland crossings limited to existing former farm road causeways as seen on a trail in the southern portion of the property or to build "Bog Bridge/ Puncheon" crossings for foot trails as recommended in the Appalachian Mountain Club's "Trail Design, Construction, and Maintenance" for poorly-drained areas.

Planning Comments

Site Location

The 126 acre airport is centrally located off Route 63 and Fairwood Road, with a right-of-way access from Hunters Trail. The site lies approximately 7.5 miles away from the Merritt Parkway to the south and 10 miles from Route 8 to north along Route 63.

The property is a mixture of relatively flat open fields, wetlands, and forested rocky terrain. Most of the property appears to lie in a public water supply watershed, as does much of the land within the Town of Bethany.

The majority of the site is currently zoned for business and industrial development. A small area of the parcel in the southwest corner is zoned residential (R-65,000 s.f.), it is largely composed of wetlands and rocky forested terrain. The surrounding property with frontage on Route 63 is zoned for business and industrial development. The rest of the neighboring property is zoned for residential development (R-65,000 s.f.).

The following uses are **permitted** in the Business and Industrial Zone of the Town of Bethany:

... all uses permitted in the residential zones and accessory uses; retail or wholesale stores; filling stations; commercial garages and truck terminals; professional, commercial or financial offices; any legal commercial or light industry use including manufacturing and assembly; motels; laundries; shopping centers or business centers; and indoor restaurants. Many of the uses require other special conditions to be met. Business and Industrial uses must meet additional performance standards and buffering requirements.

The following uses are **prohibited** within any zone in the Town of Bethany:

... slaughter house or stock yards; explosive or fireworks manufacture; fertilizer manufacture; glue processing from fish or animal products; Incineration, reduction, processing or dumping of garbage or other refuse, including septic tank effluent, except where controlled by the town; manufacture and/or disposal of atomic, nuclear and other hazardous wastes; sewage disposal plant except for the exclusive use of the owner and located wholly on the land of the owner; or when owned by the Town; junkyards; trailer camps or mobile home parks; airports; amusement parks; billboards; outdoor drive-in theaters; gun clubs; race tracks and correctional institutions. These uses and others are subject to Section 2 2 of the regulations - Protection of Existing Uses.

The airport site parcel does not have the needed infrastructure (public water, sewer, roadway improvements) available to make the property a viable site for any major industrial

development or research park at this time. The site is further constrained by being within a public watershed supply district that may drain to as many as three different watersheds.

Although every community strives to expand their tax base, and industrial parks are enticing for the tax revenue that they generate for the town, the "character" of the town should not be overlooked. The Planning and Zoning Commission and Airport Property Study Committee have gone to great lengths to include the views of the residents in any planning for land use within the community. Through various surveys and public forums it was revealed that many residents did not favor industrial development on the site at this particular time. The sentiment of many of the townspeople was to utilize the airport site property to supply municipal services or provide recreational uses. Any major development proposal on the site would require a great deal of site plan review by the town's volunteer commissions and limited municipal staff.

Conformance with Other State and Regional Plans

The Planning and Zoning Commission and the Airport Property Study Committee is hoping to develop a master plan for the use of the airport property. Many conceptual ideas have been presented to the Committee by various civic groups.

It may be beneficial to evaluate the development potential of the property from an overall statewide and regional perspective.

The State Policies Plan for the Conservation and Development of Connecticut depicts the airport site as a conservation area with the recommended state action strategy to "Plan and manage the area for the long term public benefit the area contributes to the state's need for food, fiber, water and other resources, open space, recreation and environmental quality, and to insure that the changes in use are compatible with the identified conservation values". The Plan has a list of criteria for determining different land use classifications for particular areas. The airport site was depicted as a conservation area due to the need for protection of the public water supply.

The "draft" South Central Regional Plan of Development recommends that limited growth and low density development occur within areas such as Bethany due to environmental constraints which dictate low density development in outlying areas beyond public sewer and water service. The Regional Plan attempts to help guide development proposals to areas with adequate infrastructure while protecting environmentally sensitive land areas.

Selected Demographic Data

The Town of Bethany is the only community in the south central region which could be described as rural. With a population in 1990 of 4,608 persons and a land area of 21 square miles, the population density is low. In fact, Bethany ranks 119 out of the 169 towns in the state with a population density of 219 people per square mile. In contrast, New Haven County was considered to have the highest population density in the state based on the 1990 census. Due to the large amount of protected watershed land, large lot zoning and other factors, the population growth rate for Bethany is projected to remain slow. When reviewing the age distribution of the community one notices that the age groups of 5-14 and 35-49 are higher than the state average. These two groupings might require special recreational opportunities i.e. soccer, baseball and softball.

Multiple Use Options

The Airport Property appears to be an excellent opportunity to offer some recreational pursuits for all the residents of Bethany, as well as providing the town with a site to consolidate certain government services i.e. public works, recycling and fire services. The Town of Bethany is in many ways fortunate that so much watershed land lies within its' borders. Although economic development opportunities and tax revenues are limited, a quality of life unique to the community is aided by the presence of such property. An often overlooked aspect of the open space is the influence on development patterns. Open space parcels can act as natural buffers to shield against development sprawl and spill over.

The following listing illustrates the open space make up for the Town of Bethany:

Water Utility Property	3,006 acres
Bethany Land Trust Property	152 acres
Town Owned Property	89 acres
Privately Owned Acres	4,417 acres
Total Private & Public Property	4,986 acres

Source: 1987-92 SCORP Report

Although the percentage of privately owned open space land is high (89%), the majority of the property (68%) is owned by the South Central Connecticut Regional Water Authority (SCCRWA). In the SCCRWA Land Conservation Report prepared in 1989, only 46 acres of Class III land was being considered for future residential development and 2 acres for open space after 1993. The combination of large land holdings by the water authority and low density residential development would seem to balance any need for large amounts of open

space to be retained by the town.

The Town should pursue all opportunities to consolidate public services on the site. It may eventually prove to be more beneficial to locate the public works, recycling center and fire service in one portion of the site - possible the northern area of the parcel. This would however require the moving of the present site of the recycling center. The Town is currently seeking some state assistance to enhance the recycling center (pavement). The area where the present public works garage, and stockade are located would appear to be ideal for multi purpose playing fields for soccer, track, baseball and softball. Although most any part of the site (except the wet rocky terrain in the southwest corner) should be adequate for the development of playing fields. Multipurpose trail systems could be planned for the perimeter area in the southwest corner of the site. The trails might be designed to link up with other trail easements and roadway access to eventually connect with the blue trail system and Naugatuck State Forest.

Access and adequate parking areas does not appear to be severely limited on the property. An accessway to the northern section of the site is available off Route 63. The main entrance now leads to the public works building and recycling center.

The Southern New England Telephone Company (SNET) cellular division is seeking approval to place a 150 foot communication tower on the airport property along with a small enclosed equipment building. This should not cause any conflict with other uses, and could create a cash flow which could be placed in a special dedicated fund. The possibility of clustering the communication towers that are located on Route 63 might be pursued to see if it is feasible in any way.

Summary

The volunteers who are participating in the Airport Study Committee and Town Plan of Development should be commended for their diligence in trying to come up with recommendations for an overall master plan for the use of the town owned property. The airport site is well suited for providing recreational activities and public service headquarters. Professional engineering and design firms would be able to create compatible design plans for different recreational opportunities i.e. baseball, softball, track, and equestrian activities and perimeter trails along with the proper siting of the town services. The development of the site could take place in a phased sequential manner based on the immediate need of the community. The Committee may want to investigate whether any graduate schools in the area might be willing to take on the conceptual site plan design as a student project.

Archaeological Review

A review of the State of Connecticut Archaeological Site Files and Maps show seven prehistoric Native American settlements and one 19th century historic site in the area immediately surrounding the airport property. In addition to known archaeological resources, the project area is adjacent to Bethany Bog, a major wetland feature to the north, and has a high sensitivity to as yet undiscovered sites.

In 1988, David H. Thompson, President, Greater New Haven Archaeological Society, presented the Bethany planning and zoning commission with a report listing known prehistoric archaeological resources in the town. Mr. Thompson described the sites as dating to over 4,000 years ago. Based on this information, the Town of Bethany amended its zoning regulations to include the protection of its archaeological heritage.

The Office of State Archaeology strongly recommends an archaeological survey for any areas of the airport property proposed for landscaping or any ground disturbance. Land use proposals such as open space and recreational trails should have little or no impacts, however, the building of a fire house, town garage, athletic fields, or industrial park facilities should be tested for archaeological resources prior to any construction activities.

The Office of State Archaeology also recommends that the Town of Bethany consult with David Thompson as a local expert who has conducted research into the archaeological heritage of the community. Between Mr. Thompson and the Office of State Archaeology, technical assistance can be provided to the town on the protection and preservation of any archaeological sites that might be in the proposed project area. All archaeological survey work should be conducted in accordance with the Connecticut Historical Commission's ***ENVIRONMENTAL PRIMER FOR CONNECTICUT'S ARCHAEOLOGICAL RESOURCES.***

In summary, the Office of State Archaeology strongly recommends an archaeological survey to identify and preserve any cultural resources proposed for active land use development on the airport property. Eight archaeological sites are known to exist immediately adjacent to the project area, which has the potential of yielding additional cultural resources. Please be assured that the Office of State Archaeology is prepared to

offer the Town of Bethany any technical assistance necessary to conduct this survey, if necessary, to ensure the preservation of its cultural heritage.

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 the purposes of review and a statement identifying the specific areas of concern the Team members 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 reviews per month depending on scheduling and Team members.

For additional information regarding the Environmental Review Team, please contact your local Soil and Water Conservation District or the King's Mark ERT Coordinator, King's Mark RC&D Area, Inc., P.O. Box 70, Haddam, CT 06438. The ERT telephone number is 203-345-3977.