

Environmental Review Team Report

Eyles Subdivision

Stonington, Connecticut

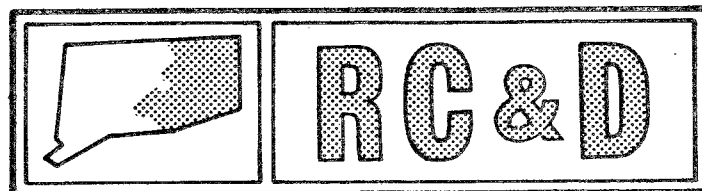


EASTERN CONNECTICUT RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC.

Environmental Review Team
Report

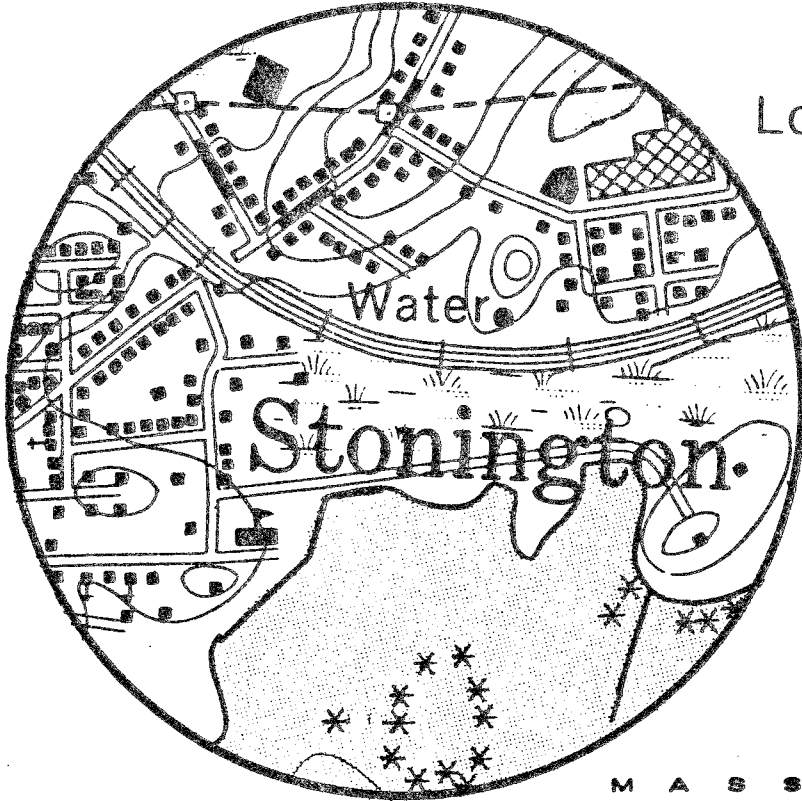
Eyles Subdivision
Stonington Connecticut

January 1985

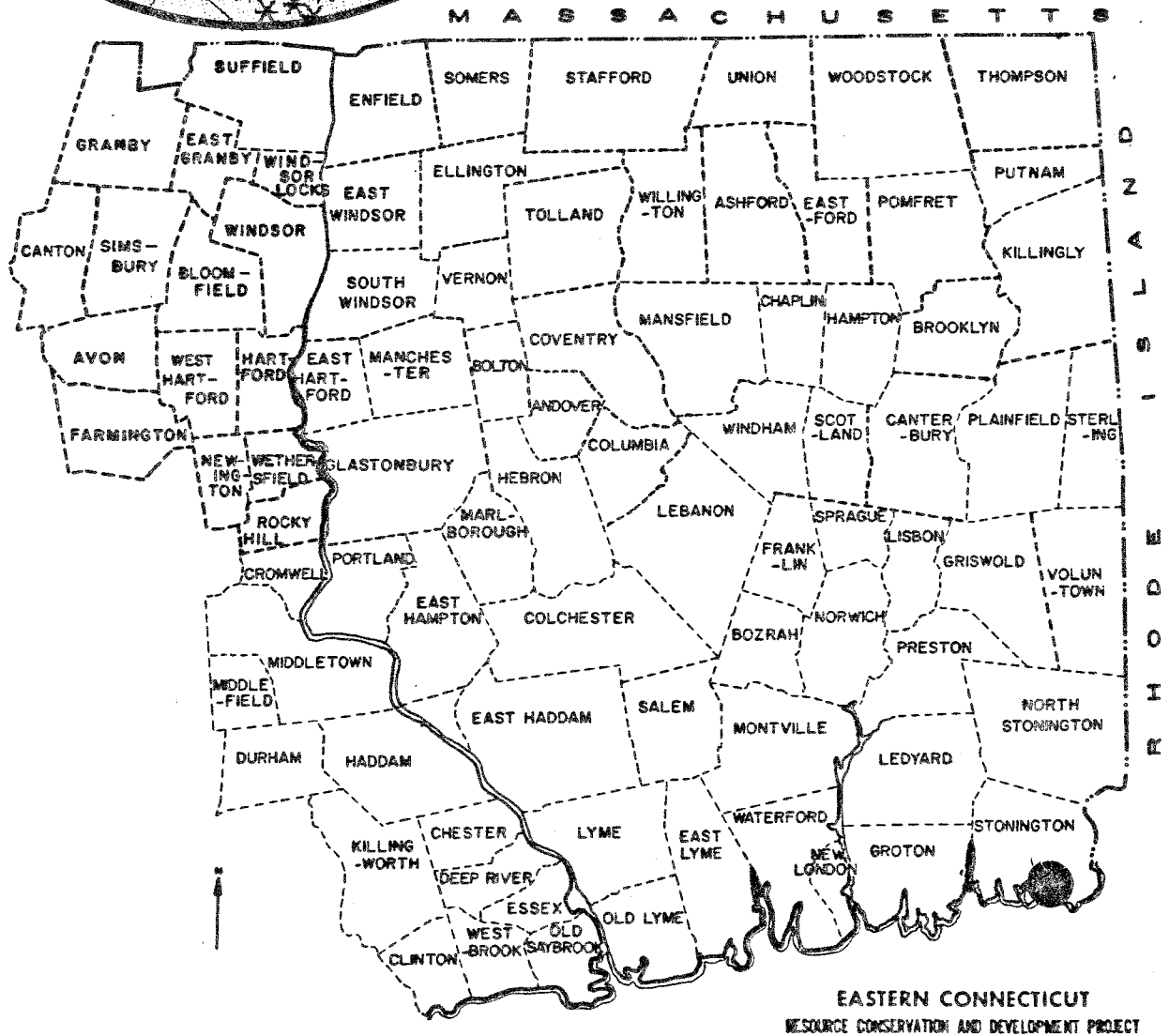


Eastern Connecticut Resource Conservation & Development Area
Environmental Review Team
PO Box 198
Brooklyn, Connecticut 06234

Location of Study Site



EYLES SUBDIVISION
STONINGTON, CONNECTICUT



ENVIRONMENTAL REVIEW TEAM REPORT
ON
EYLES SUBDIVISION
STONINGTON, CONNECTICUT

This report is an outgrowth of a request from the Borough of Stonington Planning and Zoning Commission to the New London 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 as a project measure. The request was approved and the measure reviewed by the Eastern Connecticut Environmental Review Team (ERT).

The soils of the site were mapped by a soil scientist of the United States Department of Agriculture (USDA), Soil Conservation Service (SCS). Reproductions of the soil survey map as well as a topographic map of the site were distributed to all ERT participants prior to their field review of the site.

The ERT that field checked the site consisted of the following personnel: Barry Cavanna, District Conservationist, Soil Conservation Service (SCS); Bill Warzecha, Geologist, Department of Environmental Protection (DEP); Ron Rosza, Ecologist, Coastal Area Management (DEP); Gerhard Amt, Regional Planner, Southeastern Connecticut Regional Planning Agency; Janet Wilscam, Tidal Wetlands Specialist, (DEP); and Jeanne Shelburn, ERT Coordinator, Eastern Connecticut RC&D Area.

The Team met and field checked the site on Thursday, December 6, 1984. Reports from each Team member were sent to the ERT Coordinator for review and summarization for the final report.

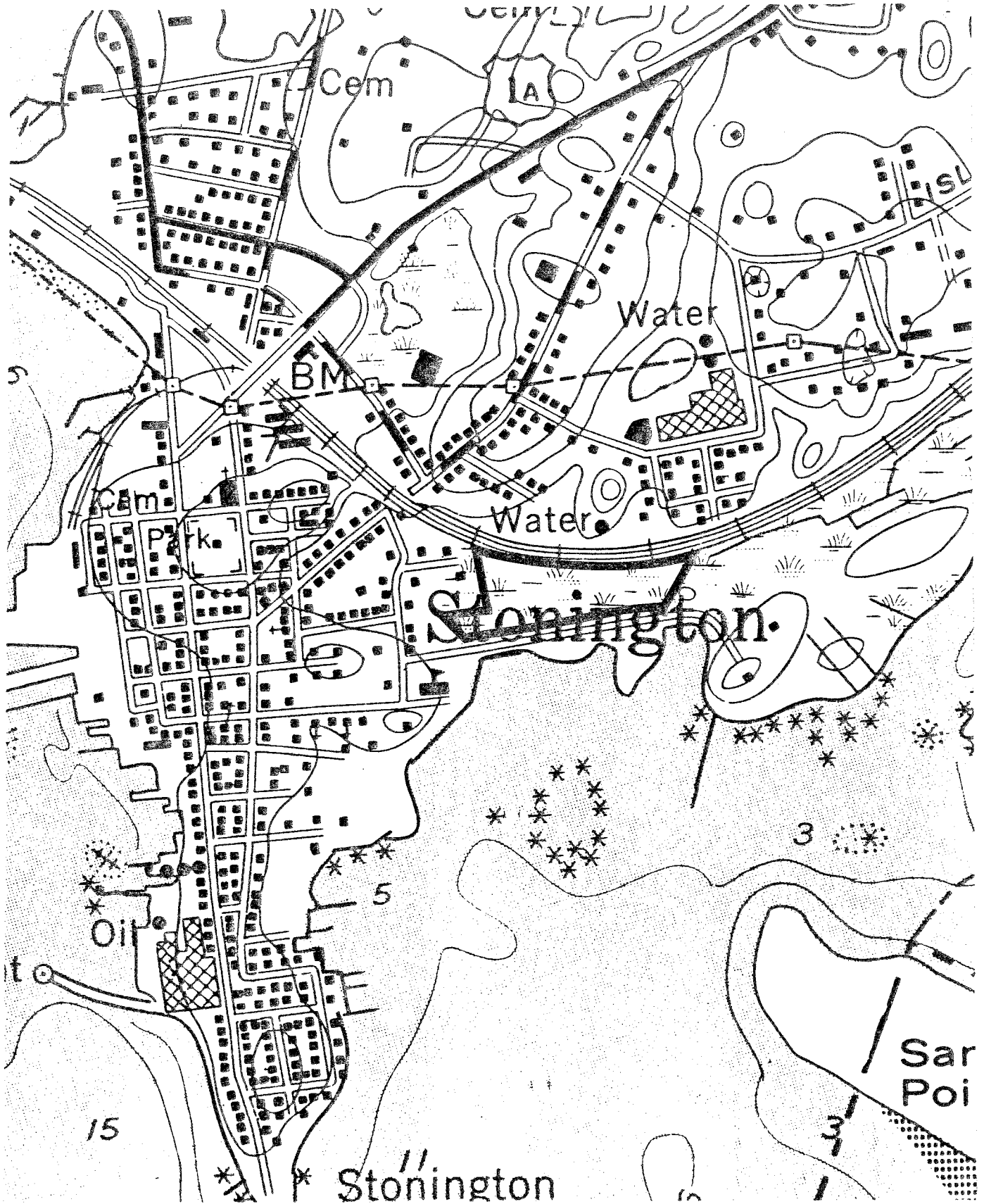
This report is not meant to compete with private consultants by supplying site designs or detailed solutions to development problems. This report identifies the existing resource base and evaluates its significance to the proposed development and also suggests considerations that should be of concern to the developer and the Town of Stonington. The results of this Team action are oriented toward the development of a better environmental quality and the long-term economics of the land use.

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

If you require any additional information, please contact Ms. Jeanne Shelburn, Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, Route 205, Box 198, Brooklyn, Connecticut 06234, 774-1253.

Topography

— Site Boundary



INTRODUCTION

The Eastern Connecticut Environmental Review Team was asked to prepare an environmental assessment for a proposed subdivision of land in the Borough of Stonington. The site is approximately 4.5 acres in size and is located south of the railroad right-of-way, north of Miller Street and west of Maple Street. The property is currently in the private ownership of Kathleen and Thomas Eyles. DiCesare-Bentley Engineers have prepared preliminary plans for the subdivision.

Preliminary plans show 10 lots ranging from 4618 square feet to approximately one acre in size. Public water supply and public sewer service are available to each lot. Access to interior lots will be provided by a private extension of Miller Street, curving to the east and ending in a cul-de-sac. The road extension will divide seven of the lots into two sections. During the pre-review meeting, Mr. DiCesare discussed a new alternative which had not been shown in the original plans submitted to the Team for review. This alternative included piping approximately 180 feet of an existing drainage channel into a 36-inch culvert. The culvert is then proposed to be covered with fill to allow construction of the proposed access drive.

The site is separated from the waters of Little Narragansett Bay, by a 165-foot-wide strip of land and a private roadway owned by Katherine J. Johnstone. A little more than half of the parcel is characterized by tidal wetlands. These wetlands are shown as Parcels 65 and 66 of Ecological Unit 68, Subdivision 1 of the State Tidal Wetlands Mapping for the Barn Island area of Stonington. Being so mapped affords the wetlands protection under the State Tidal Wetland Act and Regulations.

The Flood Insurance Rate Map revised January 5, 1984 for the Borough of Stonington designates the the area as Zone V10. The revised mapping took into account the effects of wave action in developing the minimum first floor elevation of structures qualifying for federal flood insurance. Elevation 14 NGVD is the recommended first floor height for structures in the Eyles parcel. (The term "first floor" is intended to include basements.)

During the December 6, 1984 inspection, the designated wetlands were observed to be vegetated with:

- Saltmeadow hay (Spartina patens)
- Saltwater cordgrass (S. alterniflora)
- Spike grass (Distichlis spicata)
- Black grass (Juncus gerardi)
- Seaside goldenrod (Solidago sempervirens)
- Sea lavender (Limonium nashii)
- Marsh elder (Iva frutescens)

The State-designated tidal wetlands on the site are high-quality, high marsh areas. Their vigor persists despite past alterations to the hydrologic regime. That is to say, tidal action has been modified by the placement of

Salt Acres Road and its culverts and by ditch culverting at the east end of the parcel. The wetlands in question are probably the relic of a larger system that was reduced by filling for the railroad embankment and the now-abandoned railroad bed spur.

Birds observed during the inspection were American Crow, Red-wing Blackbirds, Sparrows, Herring Gulls, and Mallards. Goose droppings were also observed. Stonington salt marshes are also known to support Seaside Sparrows, Marsh Sparrows, Snowy Egrets, Common Egrets, Great Blue Herons, Green Herons, Common Terns, and Belted Kingfishers. Yellowlegs and Clapper Rails, elusive and rare along the Connecticut coastline, might be seen from time to time in Stonington's marshes.

Blue and ribbed mussels were observed embedded in the marsh surface. These shellfish are an important food source for shorebirds. The Team's inspection was conducted during a near-perigee high tide following a rainstorm, and so observations of other fish and aquatic life were limited. (Although the tide was ebbing, it was still quite high.) Ditches in salt marshes typically teem with fiddler crabs, marsh snails, mummichogs, killifish, silversides and menhaden. Although not directly important in recreational or commercial fishing, these small fish are an important component of the salt marsh food web.

The Team is concerned with the impact of this proposal on the natural resource base of this site. Although many severe limitations to development can be overcome with appropriate engineering techniques, these measures can become costly, making a project financially unfeasible for a developer. In the following sections of this report the Team members discuss their findings and concerns in detail. Compliance of the proposed plan with local and State regulations has also been discussed, as well as recommendations for plan alternatives.

ENVIRONMENTAL ASSESSMENT

TOPOGRAPHY

The project site consists of an irregularly shaped parcel of land which is approximately 4.5 acres in size. It is located in the Borough of Stonington, south of the railroad right-of-way, north of East Grand Street and east of Miller Street. With the exception of a filled portion of the property, the site is comprised largely of tidal wetlands and freshwater inland-wetlands. The topography of the site is relatively flat with only a few very small dips and rises. Elevations on the parcel range from about two feet to eight feet above mean sea level. Because of the relatively low topographic relief and close proximity to coastal waters (sea level fluctuations), groundwater is at near ground surface throughout much of the parcel year around. The highest terrain bisects the southcentral part on the site in an east-west direction. According to local officials, the elevated portions are the remains of an abandoned railroad spur, which served the Borough in the past.

The major streamcourse on the site is found in the northcentral parts. It flows in an eastward direction through the property. Local officials stated during the field review that the ditch carries stormwater and surface drainage from areas west and northwest of the parcel.

Several smaller ditches are visible primarily in the northern parts of the property and were most likely excavated for mosquito control.

GEOLOGY

The general bedrock geology of the site is described in the Preliminary Geological Map of Connecticut, 1984, by John Rodgers. A detailed bedrock geologic map of the Mystic quadrangle, in which the property is located, has not yet been prepared. No bedrock outcrops were visible on the site during the field review, although rock is exposed on a small knoll just east of the parcel. Rodgers classifies the rock underlying the site as an interlayered light to dark, fine-to-medium grained gneiss. The rock is composed of the minerals plagioclase, quartz and biotite, with hornblende in some layers and microcline in others. The term "gneiss" refers to a crystalline, metamorphic rock. Metamorphic rocks are rocks which have been altered by great heat and/or pressure within the earth's crust. Gneissic rocks are characterized by streaks or bands, which result from alternating bands of elongate, usually dark-colored minerals and rounder light-colored minerals. The dark colored minerals in the rock underlying the site include biotite and hornblende while the light colored minerals include quartz and plagioclase. The exact depth to bedrock within the site is unknown and is probably variable. Bedrock underlying the property should pose no major problems in terms of the proposed subdivision.

A surficial geologic map of the Mystic quadrangle has been prepared by Joseph E. Upson and has been published by the U.S. Geological Survey (Map

GQ-940). The surficial geologic materials refer to those unconsolidated sediments overlying bedrock. According to Map GQ-940, the site is covered entirely by salt-marsh deposits, except for the area where artificial fill material was placed over the deposits in order to construct the former railroad spur. The exact composition of the artificial fill material is unknown. The "salt marsh deposits" on the site consist of partly, decomposed organic material mixed or interbedded with estuarine silt and sand. These deposits are delineated as Pa (Pawcatuck muck peat) on the accompanying soils map and would be considered regulated wetland soils. Because these soils are regulated inland-wetland or tidal wetland soils, the applicant must first secure all of the necessary permits from the Town or State, if any of these areas are disturbed or modified, i.e., dredged or filled. In this regard, it is recommended that a certified soil scientist stake the wetland boundaries on the site. Once this is completed, the boundaries should be superimposed on the finally approved subdivision plan. This should help the contractor(s) working on the property.

Outwash sediments and till may underlie the salt marsh deposits on the site. "Outwash deposits" consist of stratified, sandy or gravelly materials that were deposited by meltwater streams emanating from wasting masses of glacier ice. Till, on the other hand, is a glacial sediment which was deposited directly by glacial ice. Most of these sediments are rock particles of widely varying sizes and shapes, that were plucked or abraded from a pre-existing landscape by glacial ice. Till texture ranges from sandy, stony and loose to silty, less stony and tightly compact. The exact thicknesses of the unconsolidated materials overlying bedrock is unknown. Connecticut Water Resources Bulletin #16 suggests they may be as much as 39 feet thick in some parts of the property. Soil borings within the site would be required in order to determine the thicknesses of each surficial geologic unit.

HYDROLOGY

Surface drainage patterns on the site, especially in the southern and eastern portions were very difficult to determine during the field review. This was due because of heavy vegetative growth, stagnant water conditions and numerous mosquito ditches. It seems likely because of the relatively flat terrain, sea level fluctuations and presence of numerous interconnected ditches criss-crossing the site that surface drainage may flow in different directions under different conditions. Nevertheless, based on visual inspection it appears surface drainage within the parcel can be divided into two areas with the elevated former railroad spur acting as the drainage divide. Surface runoff in the northern half of the property drains to an unnamed watercourse which bisects the northcentral parts. The watercourse flows in an eastern direction to a culvert, which passes under the railroad embankment. This culvert is located north of proposed lot #10. Once water passes through the culvert, it merges with an east flowing stream carrying the water along the northside of the railroad embankment. The watercourse flows eastward for about 200 feet before it is routed southward through another culvert passing under the railroad embankment. It continues to flow in a southern direction passing under East Grand Street and ultimately empties into the Sound. It should be

pointed out the culvert north of proposed Lot #10 has caved in on the southside and is in need of repair. However, some water still appears to be flowing through the culvert.

Surface drainage in the southern half of the parcel flows toward a ditch which parallels East Grand Street. Water is then routed through a culvert passing under East Grand Street and ultimately empties into the Sound.

According to the project engineer, the applicant wishes to construct a new ditch, which would connect with the existing ditch at some point on proposed Lot #9. This new ditch would be installed so that drainage is carried in an easterly direction through Lots #9 and #10. The water would then merge with the south flowing stream mentioned above. The construction of this ditch could possibly eliminate the potential for backwater flooding conditions on the site or in the Borough due to the caved in culvert and also may improve tidal flushing of wetlands within the property. If the ditch is constructed, engineering plans should first be made available to state and local officials for review purposes. These plans should also include provisions for effective erosion and sediment control. In addition, all necessary permits (i.e., Inland-Wetland, C.A.M., dredging permits, etc.) should be secured from all state and local agencies before any construction is started.

The project engineer indicated on the field review day that some thought has been given to relocating the watercourse flowing through the northcentral parts of the site to flow northward. It would be relocated between the existing watercourse and the railroad tracks. Approximately 180 feet of the newly constructed ditch at the western end of the property would be piped. If this alternative is given serious consideration, the project engineer should first be required to conduct a detailed hydrologic study to determine whether or not there will be any significant impacts on the local surface hydrology and wetlands. Once the study is completed, all appropriate local and state officials should carefully review the material before it is approved.

Under present plans, it is expected the proposed development would increase the amount of runoff shed off the site during periods of rainfall. These increases would arise mainly by the creation of impervious surfaces, soil disturbances and compaction, and removal of vegetation. In this regard, it is recommended the applicant be required to conduct a detailed hydrologic study of the site in order to determine whether or not runoff and peak flow increases would create any flooding problems on or off the site. Serious consideration will need to be directed at several factors such as sea level fluctuations with respect to the local surface hydrology, sizes of all existing and/or proposed culverts in the drainage area, and flooding potential in the area. Prior to subdivision approval, it is recommended the applicant be required to submit detailed hydrological information on pre- and post-development runoff volumes and peak flows from the site. Estimates should be provided for a 10, 25, 50 and 100 year design storms. Also, a comprehensive erosion and sediment control plan should accompany the finally approved stormwater management plan.

The most recent (July 5, 1983) Flood Insurance Study of Stonington Borough, which was released by the Federal Emergency Management Agency, indicates the entire site is located within a "V-zone." A "V-zone" is an area

which would be inundated by water during a 100 year coastal storm event. As a result, the site as well as access roads leading to the development would be subjected to flooding during storm events. Because of the site's close proximity to open coastal waters and because of the site's low elevations, it would also be subjected to wave action during certain storm events. According to the FEMA report, the 100 year flood elevation for this site is 14 feet. All new construction on the site will need to be elevated such that the first habitable floor, including basement facilities, is at or above the 14 foot base flood elevation as required by the town building code for regulations pertaining to flooding.

Another concern related to coastal flooding would be to explore the possibility of providing a means of dry access for prospective residences of the development to elevated grounds during severe storms. Finally, it is imperative the finally approved subdivision plan be in compliance with all applicable federal, state and local regulations with regard to flooding.

As mentioned earlier in the report, much of the site is comprised by both tidal wetland and freshwater inland-wetland soils. Based on present plans, at least some of the wetlands on the site would need to be filled whether for road or building construction and sewer and water line installation. The wetlands serve many valuable hydrologic, as well as ecological functions, some of which include provisions for: (1) flood storage; (2) barriers to waves and erosion, thereby reducing the impacts of coastal storm tides and waves before they reach; (3) sediment control; (4) pollution control; (5) habitat for waterfowl and wildlife, as well as rare and endangered species, and (6) education and research.

Prior to approving any wetland filling(s) or modification, the Town should first require the applicant to assess all risks involved in permitting a particular wetland area to be filled from a hydrological standpoint. It should be pointed out that filling or modification of tidal wetlands on the site will require state approval. All wetland areas approved for filling or modification should be accompanied by a comprehensive erosion and sediment control plan.

The wetland soils (mucky peat) found on the site may have serious limited structural bearing capacities for roads and/or buildings due to the high content of organic materials. Therefore, it is strongly recommended soil borings be conducted on each lot to determine thicknesses of peat and depths to a firm base such as bedrock, stratified-drift, and/or till. This information will enable the project engineer to assess what measures will need to be taken in order to develop the site. For example, pilings will probably need to be driven down to a firm base in order to properly support buildings. Also, unstable material may need to be removed for road construction and replaced with proper fill material.

VEGETATION

Upland Vegetation

The upland vegetation is composed of two distinct types. The first is the grassy vegetation that grows upon the dredged material composed of sands and gravels. Since the composition of this material is similar to that which occurs in sand dunes and sandflats, the vegetation is composed of plant that typically inhabit those habitats. The dominant plant is the grass, American Beachgrass (Ammophila breviligulata). Associates include Sedge (Carex silicea), Small-flowering Evening Primrose (Oenothera parviflora), Beach Pinweed (Lechea maritima), Beach Pea (Lathyrus japonicus), Salt Spray Rose (Rosa rugosa), Sweet Everlasting (Gnaphalium obtusifolium), Coastal Jointweed (Polygonella articulata), Poor-man's Pepper (Lepidium virginicum), Seaside Goldenrod (Solidago sempervirens), and Hyssop-leaved Thoroughwort (Eupatorium hyssopifolium). Often between this vegetation and the wetlands occurs a band of the tall grass, Reed (Phragmites australis).

The second vegetation type occurs on the loamy soil associated with the abandoned railroad spur. Here the dominant vegetation is grassy but there are shrub thickets scattered throughout. Switch Grass (Panicum virgatum) is the dominant grass. Other herbaceous plants observed here include Bush Clover (Lespedeza hirta), Panic Grass (Panicum clandestinum), Goldenrod (Solidago spp.), Hyssop-leaved Thoroughwort, Little Bluestem (Schizachyrium scoparium), Tall Bluestem (Andropogon gerardii), Seaside Goldenrod, Yarrow (Achillea millefolium), Blue Toadflax (Linaria canadensis), Japanese Honeysuckle (Lonicera japonica), Reed and Dewberry (Rubus flagellaris). Shrubs present throughout the grassland and in thickets include Bayberry (Myrica pensylvanica), Salt Spray Rose, Multiflora Rose (Rosa multiflora), Winged Sumac (Rhus typhina) and Asiatic Bittersweet (Celastrus orbiculatus).

Wetland Vegetation

The tidal wetland supports vegetation typical of salt marshes. The common plants are grasses, namely Salt-water Cordgrass (Spartina alterniflora), Salt-meadow Cordgrass (Spartina patens), and Spike Grass (Distichlis spicata). Also present are Glasswort (Salicornia europaea), Sea Lavender (Limonium nashii) and Seaside Goldenrod. At the upland border of the marsh are found the shrub Marsh Elder (Iva frutescens) and the Switch Grass. Portions of the marsh have been invaded by Reed and its presence suggests that the existing tidal flows may be marginal.

PLANNING CONCERNS

This proposal involves subdividing 4.5 acres of land in the Borough for the purpose of residential development with an overall density of almost 20,000 square feet per residence. Given the generally urban character of the Borough and the availability of public water and sewers, this would not appear on the surface to be an unreasonable proposal. On closer inspection, however, the proposal falls short of the development objectives of the community, as

expressed by the standards and specifications of the zoning and subdivision regulations. The following are sections of these regulations which will either prohibit or limit the implementation of this plan.

1. Section 3.10 of the Zoning Regulations requires that all lots containing principal structures have frontage on a public street. This poses an inconsistency with the Subdivision Regulations, which have a provision for private streets. However, the Subdivision Regulations imply in Section 6.2.10 that all streets on an approved plan are potentially public streets.
2. The area of the proposed subdivision is within the V-zone on the Flood Insurance Rate Map for the Borough. Wave action during a 100 year storm would affect this area to an elevation of fourteen feet above mean sea level. The present land elevation is generally five feet or below. Consequently, Section 3.24.3 of the Zoning Regulations requires the first floor elevation of any new residential structure in this area to be elevated at least nine feet above the present grade. In addition, the regulations prohibit the use of fill for structural support in these zones, requiring instead that buildings be supported by pilings.
3. Section 3.25 of the Zoning Regulations authorizes the Commission to approve no more than one rear lot that does not have the frontage on a street normally required for that zone.
4. The Zoning Map shows that the area of the proposed subdivision lies in two zoning districts. The western end is in the RP Zone, while the eastern part is in the RR Zone. The minimum lot size is 8,000 square feet in the RP Zone and 20,000 square feet in the RR Zone. The larger requirement of the RR Zone is consistent with the stated purpose of the zone, which is ". . . to restrict further residential or other development within the zone. . . ."

The right-of-way for the proposed street providing access to the proposed lots bisects all of the lots except Lot #10. Since this right-of-way would be a permanent fixture and could even be considered a potential public street, the property would effectively be divided into twenty separate parcels (counting the street right-of-way as a separate parcel). Since rights-of-way, wetlands, and watercourses cannot be shown as building lots (see Section 6.3.2 of the Subdivision Regulations), the useable portions of Lots #1 through 8 do not meet the minimum lot area requirements of the Zoning Regulations.

5. The cul-de-sac on the proposed dead-end street is about 1,000 feet from East Grand Street, far exceeding the 600 foot standard in Section 6.2.4 of the Subdivision Regulations. The proposed street right-of-way width is 20 feet less than the 50 feet required by Section 8.4 of the Subdivision Regulations.

COASTAL MANAGEMENT CONCERNS

A coastal site plan review (CSPR) application must be prepared by the applicant as a component of the subdivision application submitted for the Borough Planning and Zoning Commission approval. To obtain a valid municipal approval under Sections 22a-105 and 22a-106 of the Connecticut General Statutes (the Connecticut Coastal Management Act (CCMA)), the applicant must demonstrate and the municipal commission must find that (1) the proposal is consistent with all applicable coastal policies in the CCMA, (2) adverse impacts on coastal resources and future water dependent uses as defined in the CCMA are acceptable, and (3) all reasonable measures to mitigate adverse impacts have been incorporated into the project. In addition, in the event that a subdivision plan is approved, either in the proposed or a modified configuration, then individual applications for zoning permits to construct residential structures would also require a separate CSPR application since most, if not all, buildings would be located within 100' of the tidal wetland.

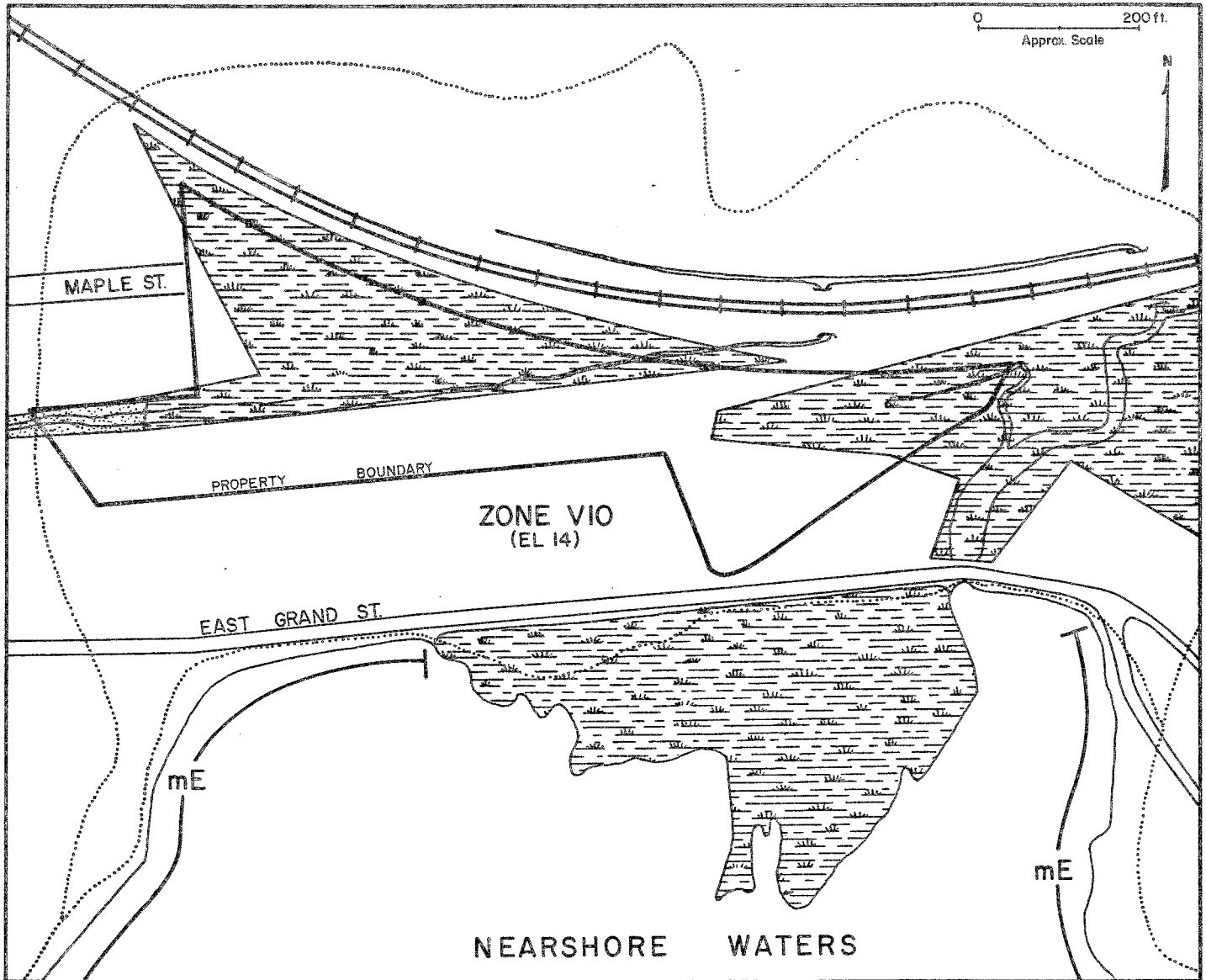
A CSPR application has been submitted to the Planning and Zoning Commission of the Borough of Stonington. The following comments address both the completeness of the CSPR application and the consistency of the proposed subdivision with the CCMA policies and standards.

Coastal Resource Identification

A plan depicting the spatial location of coastal resources on and adjacent to the site must accompany the CSPR application. The CSPR application submitted to the Planning and Zoning Commission lacks such a plan. As defined in the CCMA, coastal resources located on the site include General Resources, Tidal Wetlands, Freshwater Wetlands and Watercourses and Coastal Hazard Area (flood and wave). Also adjacent to and connected to the site via tidal creeks and ditches are coastal waters.

The plan dated October 1984 prepared by DiCesare-Bentley Engineers, Inc. does not delineate the area of state regulated tidal wetland. Rather, the annotations on the plan indicate that tidal wetland lies below contour elevation 3 feet mean sea level (msl). This, however, does not coincide with the area of state regulated tidal wetlands. The regulated wetland area is delineated on an official set of wetland maps (1 inch = 200 feet). The regulated wetland line has been superimposed on the site plan map by Mr. Luzzi. This map serves as a useful guide; however, it would appear that the western boundary of the wetland should be shifted to the east. It also appears that the wetland boundary lines, as they appear on the official tidal wetland map, are not accurately located. For this reason, we strongly urge the applicant or the Planning and Zoning Commission to request that the wetland boundary be flagged in the field by the Water Resources Unit of the Department of Environmental Protection. Once this is accomplished, then the wetland boundary can be transferred to the site plan to allow for a more precise elevation of wetland impacts. Despite the minor problems with the Luzzi map, it clearly shows that tidal wetland occurs above elevation 3' msl. Also, this map has been used as a guide to determine the general nature of wetland impacts and wetland acreage associated with the proposed subdivision.

COASTAL RESOURCES



LEGEND



TIDAL WETLANDS



FRESHWATER WETLANDS



COASTAL FLOOD HAZARD ZONE AND DESIGNATION (Only the zone covering the property has been labeled with its designation)

mE

MODIFIED BLUFFS AND ESCARPMENTS

The designated tidal wetland boundary crosses the ditch in the vicinity of Lot #2. The open ditch to the west of this line should be considered a watercourse and is therefore subject to the provisions of the Inland-Wetland and Watercourses Act (C.G.S. 22a-36 to 45). Any associated wetland that is not regulated tidal wetland, would also be subject to the provisions of this Act. The applicant must therefore apply for local inland wetland permits for the proposed activities in this watercourse. Under the provisions of the CCMA, this area is considered Freshwater Wetlands and Watercourses.

The Coastal Hazard Area, as determined by the Federal Emergency Management Agency (FEMA), includes two subelements; namely, flood hazard and wave hazard area. The entire project site and the roads leading to it are classified by FEMA as a "V-zone" (coastal high hazard area). Such areas would be subject to flooding during a 100 year coastal storm event and would further be subject to wave action. The 100 year flood elevation for this site is 14 feet National Geodetic Vertical Datum (NGVD) as delineated on the FEMA Flood Insurance Rate Maps.

Coastal Policies

Identification of all applicable Coastal Resource and Use Policies* follows from the identification of coastal resources and types of uses or activities proposed. Based upon the conceptual subdivision plan, the applicable policies are as follows:

Coastal Resource Policies

General Resources IA(A-C)
Tidal Wetlands IF(A,B,D)
Freshwater Wetlands and Watercourses IG(A)
Coastal Hazard Areas IH(A)
Coastal Waters IM(A)

Coastal Use Policies

General Development IIA(A)
Coastal Structures and Filling IID(A,B,E,F)
Sewer and Water Lines II I(A,B)

A brief analysis of the consistency of this project with certain policies is provided below. Note that it does not appear that the water dependent use policies and adverse impact considerations would apply to this project since the property is landlocked and does not possess any frontage on open coastal waters.

*CCMA Policies are numbered in accordance with Planning Report #30 entitled Coastal Policies and Use Guidelines.

1. Tidal Wetland Policies

The applicant is proposing to fill approximately 0.6 acres of regulated tidal wetland in order to accommodate an access road, water and sewer lines and a storm water/culvert line. Filling of tidal wetland as proposed represents an action that is inconsistent with policies IF(A and D).

In addition, a 36-inch diameter stormwater pipe/culvert is proposed to be placed into the ditch and then the ditch is to be filled. The lateral mosquito ditches would be connected to the pipe to facilitate drainage. It appears that tidal flows to the site are presently marginal in that the culvert, located under the railroad embankment, is in disrepair. Despite these reduced flows, most of the tidal wetland area still supports low grasses typical of salt marshes. Further reduction in these flows, as would occur with a 36-inch diameter pipe (an undersized pipe), would cause wetland degradation. Also, the invert elevation of this pipe (2.6 feet NGVD) is higher than both mean (1.4 feet NGVD) and spring (1.6 feet NGVD) high water levels. This means that the pipe will become non-tidal except during storms tides. Elimination of normal tidal action to the wetland would result in extreme wetland degradation. Also, water in the lateral ditches would stagnate and probably create an odor and mosquito breeding problem. Therefore, the elimination of the tidal ditch and the stormwater pipe design also conflict with the wetland policies.

2. Freshwater Wetlands and Watercourses Policies

The freshwater watercourse, located between the tidal wetland boundary and the Sardo property, is proposed to be filled. The apparent reason for filling this watercourse is to eliminate an odor problem that is associated with stagnant water in the ditch and breeding by mosquitos. If the nuisance mosquito is the Salt Marsh Mosquito, then this site is not a source of breeding. This species of mosquito cannot breed in permanent open water areas such as this.

At this time, there are no stormwater calculations available to demonstrate the adequacy of the proposed stormwater system to handle stormwater flows derived from the upland to the west of the project site. Until that assessment is made by the applicant, it is impossible to evaluate whether or not the proposed stormwater system will cause backwater flooding in the Borough or the project site.

The proposed action is considered potentially inconsistent with the freshwater wetlands policy because (1) there is no demonstration that this filling and piping are necessary, and (2) that a less damaging alternative exists. Rather than fill the ditch, we recommend that the ditch be cleaned and the connection between it and the tidal wetland ditch be improved so that circulation will be enhanced. If this were done, the ditch should become more saline. Saline water bodies are not breeding areas for freshwater mosquito species. The permanent nature of the water level and improved circulation will preclude breeding by tidal wetland species such as the Salt Marsh Mosquito. Also, an improved connection will allow for the ingress of predatory fish such as Killifish. The option of cleaning the ditch and improving water circulation

has the benefit of preserving wetland area with the elimination of certain reputed problems.

3. Coastal Hazard Area Policies

Subdivision of this site for the purposes of residential uses would likely increase the hazards to life and property since (1) vehicle and pedestrian access to or from the site would be precluded during a 100 year coastal storm event, (2) the activity is to be located in a coastal high hazard area (V-zone), and (3) the availability of public water and sewer service makes possible a denser development of the site than would otherwise be feasible given natural constraints. Under FEMA regulations and the corresponding Borough Zoning Regulations, structures constructed on these lots must be designed to conform to the minimum V-zone requirements. These regulations require that the bottom of the first habitable floor must be located at or above elevation 14 feet NGVD (not 11 feet msl as reported in CSPR application prepared by DiCesare-Bentley). The FEMA regulations and the Borough Zoning Regulations prohibit the use of fill for structural support in V-zones.

Incorporation of these minimum design criteria into the structure, does not eliminate entirely the dangers of building in a flood or coastal high hazard area. It has been demonstrated in similar circumstances that many homeowners are reluctant to leave their homes during the threat of a major storm. The decision to vacate frequently occurs only when flood waters are high and wave action intense. At such times, there usually is no safe means of egress. Such would likely be the case at the project site. During a 100 year coastal storm event, the access road would be inundated by as much as 7 feet of water and impassable by vehicle or foot! The absence of some means of dry or flood proofed access increases the risks to life, especially with the density of development that is proposed. Alternatives should be explored to provide a means of dry access such as an elevated roadway or pedestrian bridge to higher ground. In the absence of such an alternative, then a reduction in development density is recommended so that the risks to life are reduced.

4. Coastal Structures and Filling Policies

As presented, the project would be inconsistent with policy IDD(A) because the filling for the road and the elimination of the tidal ditch would create significant adverse impacts. Furthermore, policy IID(B) disallows the use of fill in a tidal wetland to create new land which would otherwise be undevelopable. Filling to create land to accommodate a road and sewer and water lines would conflict with this policy. As designed, the stormwater pipe would not maintain or enhance natural patterns of water circulation as required by the policy and, therefore, it would also conflict with policy IID(E).

5. Sewer and Water Lines Policies

The sewer and water lines are proposed to be located in the road bed. As such, it is technically the construction of the road, and not the placement of sewer and water lines, that will impact the tidal wetlands. Policy II I(B) prohibits the extension of sewer and water services into tidal wetlands except where necessary to abate existing sources of pollution and then only to

accommodate existing uses with (sewer and water lines designed with) limited excess capacity. Since the proposed sewer and water lines would serve an undeveloped area where no source of pollution exists (e.g., existing failing septic systems), the proposed placement of the sewer line in a tidal wetland would conflict with the above referenced policy. Further, any sewer hook-up to an individual residence must also be consistent with this policy. In other words, these policies would dictate that a sewer and water hook-up cannot be extended through a tidal wetland to serve a new facility where no development existed before and the hook-up cannot serve a new structure built in a tidal wetland (even if the structure were permitted in the tidal wetland which is unlikely).

In order to extend sewer and water lines to the non-wetland portions of this parcel and be consistent with state statutory policy, the sewer and water lines should be located outside of the state-designated tidal wetland. In addition, any hook-up to these lines would have to serve a structure placed outside of the tidal wetland and the hook-up should not cross a tidal wetland in order to reach the service area. The sewer should be designed, with limited excess capacity, to serve, at most, the number of approved lots.

Potential Adverse Impacts

The applicant must demonstrate to the satisfaction of the Planning and Zoning Commission that any adverse impacts generated by the project are acceptable. The following potential adverse impacts (as defined in Section 22a-93 of the CCMA) are of concern with respect to this project and should be addressed in the CSPR application.

1. "Degrading water quality through the significant introduction into either coastal waters or groundwater supplies of suspended solids, nutrients, toxics, heavy metals or pathogens, or through the significant alteration of temperature, pH, dissolved oxygen or salinity." (C.G.S. Sec. 22a-93(15)(A))

Two proposed activities, uncontrolled sedimentation, and alteration of tidal flows in the wetland, may or will generate the adverse impact listed above. During construction, sediments may enter the tidal creek and flow into coastal waters thus temporarily degrading water quality. This potential adverse impact could be readily mitigated through the use of appropriate sediment and erosion control techniques such as staked haybales (fabric filter fence is a better erosion control device). Although the CSPR application makes reference to the use of haybales, there is no accompanying plan that demonstrates where the fence is to be placed and how it will be maintained. In the absence of this information, it is impossible to assess the viability of the proposed sedimentation and erosion controls. It is, therefore, recommended that the commission request that the applicant provide more information as to the nature and location of the controls. (Note: As of July 1, 1985, applicants are required under the provision of the Soil Erosion and Sediment Control Act to submit a detailed erosion and sedimentation control plan to the appropriate municipal commission for review and approval.)

In addition, the stormwater line as proposed could significantly alter the salinity levels in the tidal wetland located north of the tidal ditch due

to substantially reduced tidal flushing. Any reduction in total flow to the tidal wetlands would likely cause serious degradation and create a significant adverse impact that must be mitigated. Maintenance of the tidal ditch, on the other hand, would avoid any adverse impacts to salinity and wetland quality and is the recommended approach.

2. "Degrading existing circulation patterns of coastal waters through the significant alteration of patterns of tidal exchange or flushing rates, freshwater input, or existing basin characteristics and channel contours." (C.G.S. Sec. 22a-93(15)(B))

The filling of the tidal ditch and the installation of the stormwater pipe would significantly alter the pattern of tidal exchange and flushing rates to the wetland area north of the tidal ditch. This, in turn, would cause wetland degradation. Tidal flows are currently marginal due to flow reduction caused by the railroad embankment (elimination of sheet flow) and the poor condition of the railroad culvert. Even minor flow reductions could have disastrous effects on the wetland.

3. "Degrading natural or existing drainage patterns through the significant alteration of groundwater flow and recharge and volume of runoff." (C.G.S. Sec. 22a-93(15)(D))

In the absence of stormwater drainage calculations, it is impossible to assess the viability of the proposed stormwater system. If not properly designed, the stormwater system could increase the flooding problems that neighboring areas presently experience by generating backwater flooding whenever the culverts cannot pass stormwater volumes.

4. "Degrading tidal wetlands through significant alteration of their natural characteristics or function." (C.G.S. Sec. 22a-93(15)(H))

Construction of the road as proposed would destroy approximately 0.6 acres of tidal wetland, creating a significant adverse impact. This impact could be mitigated through the repositioning of the road onto upland resources and thereby protecting the integrity of the tidal wetland. The proposed filling of the ditch and installation of the stormwater pipe as discussed earlier would likely cause the degradation of an additional 2.5 acres of tidal wetland to the north of the proposed road.

Recommendations

The above analysis indicates that the project as proposed would seriously conflict with a number of coastal resource and use policies and would likely generate a number of significant adverse impacts. As proposed, the project would be inconsistent with the CCMA. There are, however, a number of modifications which would make the project more consistent with the CCMA. These are discussed below.

1. Construct the road and the sewer and water lines on upland and thereby eliminate the destruction and alteration of tidal wetland; lay out the lots in such a configuration as to provide buildable, non-wetland areas within

each lot. The subdivision design and the configuration of each building lot should be sensitive to the amount and location of buildable upland. No lot should be designed containing too little buildable upland which would require either a variance for setbacks or require filling and despoliation of wetland to create a buildable lot. Creation of a lot that would require wetland destruction to construct a building would conflict with policy IF(D) which requires the preservation of tidal wetland and the prevention of their despoliation.

Further, development density should be reassessed based upon available upland area and the natural limitations of the site. A lower density than that proposed would also limit the hazards to life and property by placing fewer structures and people in a V-zone and where there is presently no means of dry egress during a major storm. Based solely on the acreage of the non-wetland portions of the property (approximately 2 acres), and the significant constraints at this site, it would appear that a maximum of 2-3 building lots would be an appropriate density for this site.

2. Avoid fill in the freshwater watercourse and the tidal creek/ditch. The watercourse could be cleaned and perhaps deepened. This would increase the tidal flushing and eliminate the stagnant water and mosquito breeding problem (if one exists).

3. Connect the north and south wetland portions. Evidently, the culvert located under the railroad embankment is in a state of disrepair. It is believed that the existing drainage system, despite the condition of this culvert, provides marginal tidal flows to the wetland. This design may also contribute to backflooding during periods of stormwater discharge. Construction of a ditch which would connect the existing ditch, from a point near the railroad culvert, to an existing tidal creek in the wetland located to the east of the proposed cul-de-sac would improve tidal flushing. This alternative is consistent with tidal wetland policy IF(B) and the dredging and navigation policy IIE(D) since the action would preserve and enhance the tidal wetland. However, this action would require state permits since dredging would be conducted in the wetland. Also, a suitable site would need to be found upon which to place the dredged materials. It may be possible to enlist the aid of the Department of Health Services (DOHS) in the construction of the wetland component of this channel. DOHS has a rotary ditcher which can construct a tidal ditch with little or no measurable impact. Also, the existing ditch is in need of cleaning. This connection may also be necessary to prevent backwater flooding as the result of new stormwater discharges into the wetland from the project site.

As an alternative, the applicant has proposed to reroute the tidal ditch. This new ditch would be constructed between the existing ditch and the railroad embankment. The railroad culvert would be bypassed as discussed in the preceding paragraph. The stormwater pipe would be eliminated except for Lots #1-3 (freshwater watercourse is still destroyed). This alternative would reduce the indirect impacts to the tidal wetland that would result from reduced tidal flows if the new ditch is properly sized. However, this action would directly impact and destroy additional tidal wetland. Hence, the acreage of wetland destroyed by direct impacts may actually increase. This modification

of the original plan would not appear to improve the consistency of this project with the CCMA.

4. Require soil borings to determine the suitability of the soil substrate for building foundations (pile type). It should be noted that an old Coast and Geodetic Survey map for this area (circa 1882-83) illustrates that wetland peat exists under the entire project site. This creates an unstable substrate. This condition will require that pile supported construction practices be used or that the peat be excavated and backfilled with appropriate material. It would be advisable for the Planning and Zoning Commission to request that soil borings be conducted on each lot to determine the depth of peat and depth to stable substrate. With this information, it would be possible to assess the feasibility of building on site. The settling of the neighboring and newly constructed residential structure is a good indication of the severe site constraints. It is also recommended that this information be clearly indicated on the subdivision plan so that when the lots are sold, the purchaser is fully aware of the site limitations.

TIDAL WETLAND CONCERNS

Impacts to tidal wetlands from the proposed subdivision include the loss of approximately one-half acre of regulated salt marsh to the roadway and associated fill. It is difficult to gauge the precise extent of the area that will be lost, since the site plan does not depict the extent of fill embankment, as opposed to the limit of pavement.

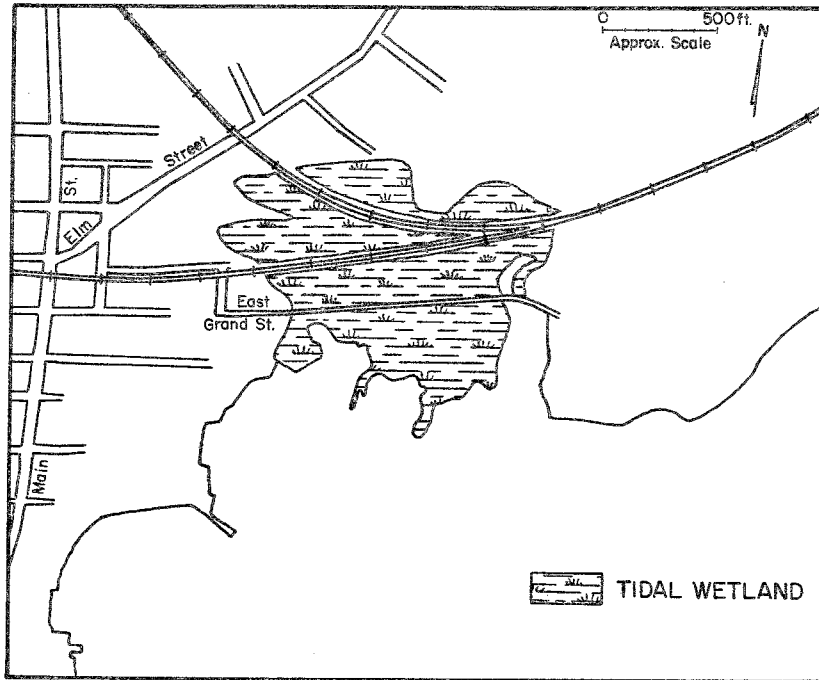
The hydrologic regime of the wetland may be adversely affected by the proposed culvert. The proposed 36-inch pipe diameter most likely is insufficient to accommodate water volumes in the existing ditch, which expands to 18 feet at its widest point. Culvert sizing should be determined by taking into account stormwater input and the effects of tides.

The combined effects of filling and altering the wetland's tidal regime could result in degradation of the vegetative community. Degraded wetlands frequently become invaded by reedgrass (Phragmites australis). Phragmites is a plant of very low wildlife value. Few species nest in it, and it is a poor source of wildlife food. Furthermore, it actually dries the marsh surface through its high transpiration rates and so is a fire hazard.

Why Protect Tidal Wetlands?

Tidal wetlands are among the most productive ecosystems in the world, outstripping even some areas of agricultural land in terms of primary productivity. When the tide floods the marsh, it picks up plant debris and flushes it into the estuary. It is this flushing action that distributes the food produced in the marsh to aquatic organisms. The organisms which feed on the marsh-generated detritus include mussels and menhaden which, in turn, are important food sources for birds and other fishlife.

EXTENT OF TIDAL WETLANDS IN 1882 - 1883



The marsh is home to a variety of wildlife, including crabs, fish, birds, and mammals. Mice, raccoons, and muskrat are frequent marsh diners. Most species important to the commercial and recreational fishing industries are dependent on the marsh ecosystem either for spawning or feeding.

One of the most critical functions of salt marshes is that they provide habitat for rare and declining avian populations. The Great Blue Heron, known to be very shy of human disturbance, is rare in Connecticut. It uses the marsh as a feeding area. Like the Great Blue Heron, the Common Egret is classified as rare and comes to the salt marsh to feed. An unusually beautiful bird, the Common Egret was nearly eliminated from the Connecticut shoreline around the turn of the last century by hunters who profited by selling the birds' feathers for ladies' hats. Populations of the Marsh Hawk, also known as the Northern Harrier, are thought to be declining in Connecticut. A species whose habitats are marshes and fields, the Marsh Hawk's population decline has been attributed to habitat destruction and pesticide contamination.

"Habitat destruction" is a nice way of pointing to the larger issue: Between 1900 and the passage of the Tidal Wetland Act in 1969, Connecticut lost an estimated half of its tidal wetland acreage. Approximately 17,000 acres of tidal wetlands remain. The other fifty percent was lost to railroad embankment and highway construction, housing construction, and use as dredge spoil disposal sites.

Applicable State Regulatory Programs

Connecticut's Tidal Wetlands Act was passed to curb the despoliation of these valuable coastal resources. Section 22a-28 of the Connecticut General Statutes (CGS) established the following policies to preserve tidal wetlands:

It is declared that much of the wetlands of this state has (sic) been lost or despoiled by unregulated dredging, dumping, filling and like activities and that the remaining wetlands of this state are all in jeopardy of being lost or despoiled by these and other activities, that such loss or despoliation will adversely affect, if not entirely eliminate, the value of such wetlands as sources of nutrients to finfish, crustacea and shellfish of significant economic value; that such loss or despoliation will destroy such wetlands as habitats for plants and animals of significant economic value and will eliminate or substantially reduce marine commerce, recreation and aesthetic enjoyment; and that such loss or despoliation will, in most cases, disturb the natural ability of tidal wetlands to reduce flood damage and adversely affect the public health and welfare; that such loss or despoliation will substantially reduce the capacity of such wetlands to absorb silt and will thus result in the increased silting of channels and harbor areas to the detriment of free navigation. Therefore, it is declared to be the public policy of this state to preserve the wetlands and to prevent the despoliation and destruction thereof.

In support of the above policies, CGS Section 22a-33 describes the factors for consideration against which each application for construction, filling, or excavation in tidal wetlands is weighed. The factors are:

1. The effect of the proposed work with reference to the public health and welfare;
2. Impacts to marine fisheries, fish and wildlife; and
3. The protection of life and property from flood, hurricane and other natural disasters.

The Department of Environmental Protection adopted regulations which describe the procedures for processing tidal wetlands applications and holding hearings. The regulations also contain additional standards for evaluating tidal wetlands applications. Sections 22a-30-1 through 22a-30-17 of the Regulations of Connecticut State Agencies (RCSA) contain the Tidal Wetland Regulations. Regulations applicable to the Eyles proposal include:

RCSA Section 22a-30-10(b) Criteria for preservation of wetlands and prevention of their despoliation and destruction.

In order to make a determination that a proposed activity will preserve the wetlands of the state and not lead to their despoliation and destruction, the commissioner shall, as applicable, find that:

- (1) There is no alternative for accomplishing the applicant's objectives which is technically feasible and would further minimize adverse impacts;
- (2) Any structures or fill will be no greater in length, width and height than necessary to accomplish its intended function;
- (3) Pile supported construction will be used to the fullest extent practicable;
- (4) All reasonable measures which would minimize the adverse impacts of the proposed activity on the wetlands of the state and adjoining coastal and tidal resources are incorporated as limitations on or conditions to the permit.

RCSA Section 22a-30-10(d)(5) The perimeter of all areas proposed to be filled, dredged or excavated are suitably stabilized to prevent spillover or erosion of material into adjoining wetland or watercourse areas.

RCSA Section 22a-30-11(b) Activities which may be generally compatible under certain conditions:

- (5) Stormwater drainage structures when:
 - (A) The pipe empties into streams or ditches within the wetland rather than directly onto the wetland surface;
 - (B) The discharge pipe and head wall do not project unnecessarily onto or require fill of the wetland surface;

- (C) The velocities of the discharged water are not sufficiently large to cause erosion or scouring of the wetland's surface or vegetation;
- (D) The discharge pipe is equipped with catch basins which are cleaned sufficiently often to maintain unimpaired function.

RCSA Section 22a-30-11(c) Activities which are generally incompatible:

- (2) Filling;
- (6) Grading;
- (7) Excavation;
- (11) Construction of single family dwellings or multiple family dwellings on fill.

During its last legislative session, Connecticut's General Assembly approved Public Act 84-536, which gave the Department of Environmental Protection the authority to consider the effects of flooding in its regulatory programs. The Act essentially enables the Department to use standards adopted by the National Flood Insurance Program in evaluating applications for construction activities in flood-prone areas which fall under the Department's jurisdiction.

According to National Flood Insurance Criteria, the houses in Mr. Eyles' proposed subdivision would have to be built on anchored pilings at an appropriate elevation so that the lowest floor (including the basement) is at or above the base flood level. The base flood level indicated on National Flood Insurance Map for this area is Elevation 14 NGVD. The support pilings would have to be designed to withstand storm and hurricane conditions. CFR Section 60.3(d)(5) provides ". . . that all new construction . . . have the space below the lowest floor free of obstructions or be constructed with 'breakaway walls' intended to collapse under stress without jeopardizing the structural support of the structure so that the impact on the structure by abnormally high tides or wind-driven water is minimized. Such temporarily enclosed space shall not be used for human habitation." The following section specifically prohibits the use of fill for structural support in V-zones.

Another concern related to flood protection is the provision of dry access from the site in the event of a major storm. Since the proposed roadway will only be between elevation 7 and 9 CGS, it will be under five to seven feet of water during a 100 year storm. In a word, it will be impassible. Existing roadways into the site are also well below flood elevations. If some sort of dry access to higher ground could be provided, questions should then be raised regarding the availability of shelter and basic services in the areas receiving evacuees.

At the December 6 meeting, Mr. Eyles and his engineer submitted an alternative plan which would involve relocating the existing ditch to improve tidal flow. If Mr. Eyles chooses to pursue this alternative, the project will

not only require a tidal wetlands permit, but may also require a water diversion permit pursuant to CGS 22a-365. It is doubtful that Water Resources Unit staff would recommend approval of such an application, since it would involve excavating an area of high quality salt marsh. The Tidal Wetlands Regulations specifically state that excavating is incompatible with the functions of wetlands and with the State's policy of preserving tidal wetlands.

If Mr. Eyles were to submit a tidal wetlands application for the construction of the roadway, placement of the culvert and fill, and housing construction as currently envisioned, it is unlikely that Water Resources Unit staff could recommend approval. The reasons that the housing lots are inconsistent with State policies are:

1. The use of fill is contrary to the State's policy of preserving tidal wetlands;
2. The use of fill has not been minimized to the fullest extent practicable;
3. The plans do not show how the perimeter of the fill area will be stabilized to prevent erosion into adjacent wetlands;
4. The proposed culvert will require filling adjacent wetland areas;
5. The proposed culvert is insufficiently sized and will adversely affect the wetland's tidal regime;
6. The proposed use of fill and roadway as ancillary to single family homes is inconsistent with the policies contained in the Tidal Wetland Regulations;
7. No dry access has been proposed as an evacuation route;
8. The proposal will benefit only a few homeowners, but will not benefit the general public health and welfare;
9. Reasonable and prudent alternatives exist to the proposed filling activities.

Alternatives

Alternatives to the proposed ten-lot subdivision and filling include:

1. Reducing the number of house lots;
2. Repositioning the access road to eliminate the use of fill in designated tidal wetlands; and
3. The "no-build" alternative.

The Application for Coastal Site Plan Review prepared by DiCesare-Bentley Engineers, Inc. described the existing ditch as a nuisance, and that it has

odor problems and is a mosquito breeding site. The proposed culvert, however, may only serve to exacerbate the problem. An alternative solution to the culverting would be to maintenance dredge the ditch and improve tidal flushing. As suggested elsewhere in this report, one means of improving tidal flushing would be to replace the culvert under the railroad embankment.

Additional Information

Before local, or eventually state, approvals can be granted, the applicant should be required to provide further information. Areas requiring clarification include:

1. The actual extent of fill;
2. The depth of peat, if any, underlying the proposed houses. If the substrate does contain peat, there could be significant construction difficulties and problems with excessive settling following construction; and
3. Existing hydraulic conditions should be more fully assessed, so that any culvert can be adequately sized and appropriate measures can be undertaken to restore tidal flushing.

Recommendations and Conditions

Based on the above, it is recommended that the proposed application for subdivision be denied. It is further recommended that Mr. Eyles be given an opportunity to amend his plans to reflect a reduced number of lots and a relocation of the access drive outside of tidal wetlands.

No subdivision approval should be granted for this site unless:

1. First floor elevations are at or above elevation 14 NGVD;
2. No fill is used for structural support;
3. Breakaway walls should be employed below the first floor elevation;
4. Dry access should be provided;
5. Intrusion into tidal wetlands is avoided;
6. Further information is provided regarding the tidal regime and stormwater input, so that a viable restoration plan can be designed and implemented;
7. During the December 6 inspection, Mr. Eyles indicated a willingness to provide a conservation easement for a portion of his parcel. This would be an effective mechanism to protect any tidal wetlands on the site;

8. Silt fencing or staked haybales or both should be placed at proposed toes of slope to protect adjacent wetlands from fill erosion; and
9. Fill slopes should be suitably graded and stabilized to minimize erosion.

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 (774-1253), Environmental Review Team Coordinator, Eastern Connecticut RC&D Area, P.O. Box 198, Brooklyn, Connecticut 06234.