

Hunters Landing Subdivision

Ansonia, Connecticut

King's Mark Environmental Review Team Report

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

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Environmental Review Team Report

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

for the
Inland Wetlands Commission
Ansonia, Connecticut

November 1998

CT Environmental Review Teams
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Acknowledgments

This report is an outgrowth of a request from the Ansonia Inland Wetlands Commission to the New Haven County Soil and Water Conservation District (SWCD). The SWCD referred this request to the King's Mark Resource Conservation and Development Area (RC&D) Executive Council for their consideration and approval. The request was approved and the measure reviewed by the King's Mark Environmental Review Team (ERT).

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.

The field review took place on Wednesday, October 14, 1998.

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I would also like to thank John Izzo, chairman, inland wetlands commission, Jo-Lynn Flaherty, secretary, inland wetlands commission, Alfred Grasso and Jeffrey Purcell, the applicants, Alan Shepard, project engineer and Jay Fain, project soil scientist, for their cooperation and assistance during this environmental review.

Prior to the review day, each Team member received a summary of the proposed project with location and soils maps. During the field review Team members were given additional plans and information. Following the review, reports from each Team member were submitted to the ERT coordinator for compilation and editing into this final report.

This report represents the Team's findings. It is not meant to compete with private consultants by providing site plans or detailed solutions to development problems. The Team does not recommend what final action should be taken on a proposed project - all final decisions rest with the town and landowner. This report identifies the existing resource base and evaluates its significance to the proposed development, and also suggests considerations that should be of concern to the town. The results of this Team action are oriented toward the development of better environmental quality and the long term economics of land use.

The King's Mark RC&D Executive Council hopes you will find this report of value and assistance in reviewing this proposed subdivision development.

If you require additional information please contact:

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Introduction

Introduction

The Ansonia Inland Wetlands Commission has requested assistance from the King's Mark Environmental Review Team in conducting a review of a proposed housing development.

The 7.6 acre site is located on Hunters Lane, Myrtle Avenue and Sharyl Drive. A 12 lot single family subdivision is proposed with no new roads. All lots will be accessed from existing roads with 4 rear lots proposed. The lots range in size from .18 acres to 2 acres.

White Mare Brook/Beaver Brook (designated Beaver Brook on the plans) is on the southerly property border with a wetland corridor through the center of the property. A detention basin is proposed on Lot #1. The site is currently forested.

Objectives of the ERT Study

The inland wetland commission has asked for assistance and guidance in evaluating the environmental impacts from the proposed development and recommendations concerning the level of development that the site can handle. Major concerns are the steepness and wetness of the site with regard to stormwater management and erosion and sediment control, impacts to wetlands and a review of wetland mapping, impacts to wildlife habitat, open space evaluation, protection of the stream corridor and site design.

The ERT Process

Through the efforts of the inland wetlands commission this environmental review and report was prepared for the Town of Ansonia.

This report provides an information base and a series of recommendations and guidelines which cover the topics requested by the town. Team members were able to review maps, plans and supporting documentation provided by the applicant.

The review process consisted of four phases:

1. Inventory of the site's natural resources;
2. Assessment of these resources;
3. Identification of resource areas and review of plans; and
4. Presentation of education, management and land use guidelines.

The data collection phase involved both literature and field research. The field review was conducted on Wednesday, October 14, 1998 and some Team members made additional site visits. The emphasis of the field review was on the exchange of ideas, concerns and recommendations. Being on site allowed Team members to verify information and to identify other resources.

Once Team members had assimilated an adequate data base, they were able to analyze and interpret their findings. Individual Team members

then prepared and submitted their reports to the ERT coordinator for compilation into this final ERT report.

Figure 1

Location Map

Scale 1" = 800'

 Approximate Site

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N

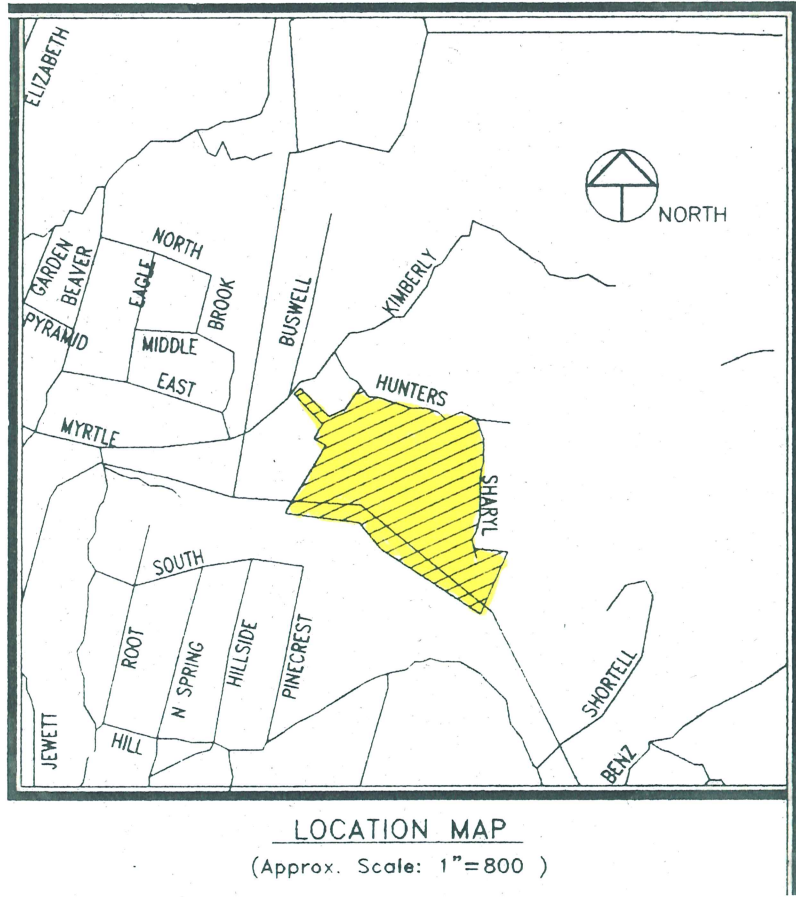


Figure 2

Topographic Map

1" = 2000'

↑
N



Wetland Review

Materials reviewed: Plan entitled "Site Development Plan Prepared for Hunters Landing/Myrtle Avenue, Hunters Lane, Sharyl Avenue dated 2/19/98 and last revised 7/27/98 and report entitled "Drainage Report/Hunters Landing," dated 3/98.

Issues of particular concern for the Ansonia Inland Wetlands Commission include swales and detention basins, impacts to the wetlands, and the extent of wetlands.

As proposed, the only direct impact to mapped wetland areas is the approximately 1200 square feet of fill required for the placement of the rip-rap swale which will guide flows toward the proposed detention basin, as well as its outlet structure at White Mare Brook/Beaver Brook. In order to reduce direct impacts to wetlands it was recommended in an earlier report from the Team wetland specialist to the Ansonia Inland Wetlands Commission, that the applicant investigate the possibility of moving the proposed detention basin from lot 13 to what was at that time lot 1 in order to avoid using the interior wetland as a conduit for collected stormwater discharges. Their response was that this would involve steeper slopes, would effect off-site drainage and would create more disturbance and erosion.

After reviewing this project in the field, the Team wetland specialist agrees that these mitigating circumstances outweigh the minimal potential impacts to the wetland as a result of the proposed stormwater management system. The channel is well armored with natural rock and should not experience excessive erosion as a result of the increased volume of flow.

Based on the field investigation, as mentioned above, the inland wetlands boundary, as flagged in the field by Mr. Jay Fain, the applicant's soil scientist, and delineated on the above referenced site plan, appears to be accurate.

Recommendations include:

- Installing a marked measuring stick within the detention basin to signify to the owner of lot one when the proposed one-foot clean-out depth has been reached.

- It may be more assuring if the maintenance requirements for the detention basin were placed on the deed for this property.
- Limits of disturbance should be clearly marked in the field prior to construction.
- When constructing the stormwater pipe through lot 6 and its outlet on lot 5, special attention should be made to ensure that stormwater flows concentrating in the trench prior to backfilling do not cause sedimentation of the downstream wetlands. The use of stone check dams temporarily placed within the trench or at its downslope terminus may be necessary. Similar precautions should be taken during the construction of the detention basin outlet.
- To address concerns about downstream flooding, it may be helpful for the applicant to produce a proposed conditions drainage basin map to demonstrate what portion of this parcel will be draining into the proposed detention basin and what portion of the developing areas will not be captured by the detention basin.
- At the ERT sitewalk, during which the Team experienced a saturating rainfall event, there were no indications of high groundwater tables outside of marked wetlands. The soil map unit for upland soils on the parcel are entirely "HpE" or Hollis-Charlton fine sandy loams. Hollis soils are classified as "extremely well drained", while Charlton soils are considered "well-drained". These classifications would indicate that these soils typically do not experience high groundwater levels.

DEP Stormwater Management Review

Construction Activities

Since the site construction does not appear to involve the disturbance of over five acres, Connecticut's General Permit for the Discharge of Stormwater and Dewatering Wastewaters (the "Permit") will not cover the project. The permit requires that the site register with the Department of Environmental Protection (CTDEP). The registrant must then prepare and keep on site during the construction project a Stormwater Pollution Control Plan (the "Plan"). Therefore, the erosion and sedimentation issues are included in the Connecticut Guidelines for Soil Erosion and Sediment Control (the "guidelines"), and are issues that must be dealt with on a local level.

The primary concern for construction is the potential for erosion and sedimentation problems during construction of the drainage system through the center of the site. The developers have indicated a willingness to phase this project with appropriate diversions and site controls to limit this potential problem. Ideally, this work should be done during a low flow period. With regard to the post-construction stormwater system, it appears that the proposed detention basin will attenuate peak flows and the project will potentially improve existing on-site and off-site drainage. Overall, the development appears to be an optimum design for minimizing impacts and controlling stormwater flows.

USDA Natural Resource Conservation Service Review

The proposed stormwater management measures for the Hunters Landing site are well thought out and appropriate for this site. The infiltration of roof runoff is an excellent approach to reduce the increased volume of runoff that occurs as a result of development. The streambank erosion site along the south side of the brook will not be affected by the development because water from the detention basin enters the brook downstream of the erosion site.

The following item may improve the plan with a minimal amount of cost. The proposed detention basin may be made to act as an infiltration basin for frequent storms if it is excavated deeper than the low opening in the outlet structure. This would be an additional measure to reduce the increased runoff volumes, if the soils and geology of the site are found to be suitable during construction of the basin.

Other

The wetland from the outlet of the 15" storm sewer pipe to the rip rapped swale (within lots 5 & 12) may not continue to be stable when the additional water from the Sharyl Drive cul-de-sac is introduced. The impact to the wetland from construction of a stable channel should be weighed against the impact of a possibly unstable drainage way.

The Natural Diversity Data Base

The Natural Diversity Data Base maps and files regarding the project area have been reviewed. According to our information, there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur at the site in question.

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. Consultations 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.

It is now possible for commissions/individuals to conduct an initial endangered species review using the "State and Federal Listed Species and Significant Natural Communities" maps available for viewing through each town's Town Hall. The town staff should have a copy of the map and instructions on how to use the maps. This map shows the generalized locations for listed species and communities as gray-shaded areas on a 1:24,000 scale map of the town.

Wildlife Habitat

Introduction

This report will focus on potential wildlife habitat impacts for the proposed subdivision and recommendations for reducing wildlife resource impacts.

Current Conditions

The 7.5 acres of forested and wetland areas currently provide a variety of wildlife with their habitat requirements.

Wildlife Observations / Site Inspection

The following wildlife were observed during the site visit either directly or indirectly by identifying calls, tracks, scat or other sign: gray squirrel (*Sciurus caroliniana*), American crow (*Corvus brachyrhynchos*), blue jay (*Cyanocitta cristata*), white-throated sparrow (*Zonotrichia albicollis*), whitetailed deer (*Odocoileus virginianus*), and red fox (*Vulpes vulpes*). A more detailed review of the property during the four seasons of the year would, undoubtedly, reveal additional wildlife use of the property.

Inspection of Forest Habitat Condition

The following is a partial list of native trees, shrubs and vines that were inventoried on the site: American beech (*Fagus grandifolia*), red maple (*Acer rubrum*), sugar maple (*Acer saccharum*), boxelder (*Acer negundo*), black oak (*Quercus velutina*), white oak (*Quercus alba*), American elm (*Ulmus americana*), white ash (*Fraxinus americana*), shagbark hickory (*Carya ovata*), black cherry (*Prunus serotina*), eastern cottonwood (*Populus deltoides*), black birch (*Betula lenta*), yellow birch (*Betula alleghaniensis*), gray birch (*Betula populifolia*), eastern hemlock (*Tsuga canadensis*), witchhazel (*Hamamelis virginiana*), serviceberry (*Amelanchier canadensis*), Alder (*Alnus* spp.), wild apple (*Malus* spp.), staghorn sumac (*Rhus typhina*), spicebush (*Lindera benzoin*), highbush blueberry (*Vaccinium angustifolium*), winterberry (*Ilex*

verticillata), sweet pepperbush (*Clethra alnifolia*), flowering dogwood (*Cornus florida*), blackberry (*Rubus allegheniensis*), red raspberry (*Rubus idaeus*), greenbriar (*Smilax rotundifolia*), poison ivy (*Toxicodendron radicans*), wild grape (*Vitis* spp.), Virginia creeper (*Parthenocissus quinquefolia*), and common reed (*Phragmites* spp.). These plants include a variety of seasonally available soft and hard mast (berries and nuts) eaten by many of the resident wildlife as well as migratory songbirds. The following non-native invasive trees and shrubs were also tallied: Norway maple (*Acer platanoides*), autumn olive (*Eleaegnus umbellata*), Privet (*Ligustrum* spp.), euonymus (*Euonymus* spp.), multiflora rose (*Rosa multiflora*), Japanese honeysuckle (*Lonicera japonica*), Oriental bittersweet (*Celastrus scandens*), and Japanese knotweed (*Polygonum cuspidatum*).

The condition of this small forested area is good for adaptable wildlife species which are indicative of suburban areas. It can be expected that during migration a variety of migratory song birds may stop over to feed or rest in the forest. Adaptable bird species such as the american robin (*Turdus migratorius*), northern cardinal (*Cardinalis cardinalis*), and gray catbird (*Dumetella carolinensis*) may nest during the warmer months. The occurrence of many invasive non-native trees, shrubs and vines reduces the overall habitat quality, however, through selective vegetation management conditions can improve. Adaptable mammals may utilize the property such as gray squirrel (*Sciurus carolinensis*), raccoon (*Procyon lotor*), and white-tailed deer (*Odocoileus virginiana*).

The forested area is experiencing an invasion of non-native woody plants which are displacing more valuable native plants. Norway maple (*Acer platanoides*), autumn olive (*Eleaegnus umbellata*), Privet (*Ligustrum* spp.), euonymus (*Euonymus* spp.), multiflora rose (*Rosa multiflora*), Japanese honeysuckle (*Lonicera japonica*), Oriental bittersweet (*Celastrus scandens*), and Japanese knotweed (*Polygonum cuspidatum*) are degrading the habitat quality of the forested area. This can be combatted utilizing various vegetation management techniques such as mechanical removal and limited herbiciding (more information is available upon request).

Brook Habitat and Corridor

White Mare Brook/Beaver Brook appears to be experiencing some increased scouring of its banks. The habitat directly adjoining the brook still maintains natural features and has not experienced the same level of invasion of non-

native plants that the rest of the property has. To maintain the integrity of the brook and adjoining vegetation a buffer should remain undeveloped.

Recommendations:

- Maintain an undeveloped buffer (50 - 100 feet) along White Mare Brook/Beaver Brook. Lots #7, and #8 may need to be reconfigured to allow greater buffer to the brook.
- Lots # 5 and #12 are rear lots with wetland area in the center of the properties. The lot configurations are such that impacts to the wetlands would be difficult to avoid. Reconfiguring of these two lots is highly recommended. The crossing or filling of the wetlands and buffer area should be avoided. A vegetated connection from the wetlands on lots #5 and #12 to White Mare Brook/Beaver Brook should be maintained. Lots #6, #5 and #12 can be combined to avoid crossing or impacting the wetlands area.
- Place conservation easements on wetlands and wetland buffers.
- Invasive nonnative woody plants should be controlled through cutting and selective herbicide application. Managing invasive nonnatives on the property should be planned and strategies should be implemented to reduce their impacts to the natural habitats. Limited herbicide use should not be ruled out as an option to control some of the particularly aggressive invasive plants. It is advised to consult with the Connecticut Agricultural Experiment Station (Todd Mervosh) at 860-683-4984 for advice on herbicides.

The following nonnative invasive plants should not be planted:

Trees

Norway Maple (*Acer platanoides*)
 Tree of Heaven (*Ailanthus altissima*)
 Catalpa (*Catalpa spp.*)

Shrubs

Autumn Olive (*Elaeagnus umbellata*)
 Russian Olive (*Elaeagnus angustifolia*)
 Winged Euonymus (*Euonymus alatus*)

Burning bush (*Euonymus atropurpureus*)
Privet (*Ligustrum spp.*)
Tartarian honeysuckle (*Lonicera tatarica*)
Common buckthorn (*Rhamnus cathartica*)
Glossy buckthorn (*Rhamnus frangula*)
Multiflora rose (*Rosa multiflora*)

Vines

Asiatic bittersweet (*Celastrus orbiculatus*)
Japanese honeysuckle (*Lonicera japonica*)

In managing the forested habitat, snags (dead or dying trees) should be maintained at a minimum of at least 3 snags and one den tree per acre to provide habitat for snag-dependent wildlife such as woodpeckers, chickadees, owls, and flying squirrels. Snags should not be left near buildings or high human traffic areas for safety reasons.

Further Information

The Team biologist is available for further consultation regarding habitat and other wildlife issues for this development.

Planning Review

Material Reviewed: Hunters Landing Subdivision and Site Development Plan (Myrtle Avenue, Hunters Lane, Sharyl Drive), Ansonia, CT. Map prepared for Jeffrey Purcell and A. J. Grasso, Shelton, CT. (revised 7/27/98)

The ERT review meeting prior to the field investigation provided an opportunity to discuss the proposed subdivision with the developers. Immediately following this meeting, the field investigation took place under ideal conditions for seeing the impact of intensive rainfall on the site. For example, participants were able to see the water pouring in under the grate of the existing double catch basin east of Sharyl Drive.

As a result of discussion, the Team planner has no problems in accepting the extent of wetlands as mapped by Jay Fain & Associates.

The Team planner has two concerns regarding the proposed development. Both concerns relate to the open space. As is evident on properties located south of White Mare Brook/Beaver Brook (brook running on south side of property), property owners have extended their lawns to the edge of the brook. When the fill becomes subject to erosion from the next storm, they become upset. The natural area adjacent to the brook should be preserved. One means of preserving the streambelt would be through a conservation easement. As suggested by Doug Hoskins, the Team wetland specialist, the developer could propose a conservation easement on each of the affected lots, subject to disposition by the Commission. The easement would describe not only the location of the easement, but also what could and could not take place within the easement. For instance being able to install and maintain foundation and gutter drains and infiltrators would be permitted. Clearing, extending lawns or placing storage sheds within the conservation easement would be prohibited. The easement would be transferred to the lot owner as part of the deed, similar to a utility easement.

The second concern is about preserving the extent of open space as shown on the site development plan. During our discussion at City Hall, the developers showed the ERT participants a map which indicated the potential for an alternative development, with another street coming in off Hunters Lane. This would greatly diminish the remaining open space. Approval of the rear lots

by the Planning and Zoning Commission would appear to be the wiser course as a means of conserving the open space and minimizing additional public streets.

The open space may have local historical value. The presence of a few corrugated roofing materials were reported to be the result of makeshift shelters remaining from World War I when Canadians and others came to Ansonia to seek work in the factories.

The Subdivision Map shows a proposed 20' drainage easement to the City of Ansonia for the installation of a proposed 15" storm sewer located on lots 5 and 6. In order for the City to gain access to this easement for maintenance purposes (the existing 15" Storm sewer from Sharyl Drive is half full of silt) a connecting drainage easement should be located along the proposed driveway of lot 10.

The remains of a circular cistern appeared to be located on lot 6. It was not indicated on the site plan. This structure should be removed.

Archaeological Review

A review of the State of Connecticut archaeological site files and maps shows no known archaeological resources on the project area. However, to the north immediately adjacent to Quillinan reservoir there is one prehistoric Native American archaeological site. This site represents hunting and gathering economies dating 3000 to 4000 years ago utilizing the resources of the drainages flowing into the Naugatuck River. In this regard, the proposed project area would have archaeological sensitivity; however, field review indicates that much of the project area has been affected by previous land use activities and that the integrity of any archaeological site on the property would have long been lost. As a result, The Office of State Archaeology would suggest that the development should have no adverse affect on the state's archaeological resources. Any archaeological sites located on the property would have been disturbed in the past.

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 and 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 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 in the review of sites proposed for major land use activities or natural resource inventories for critical areas. 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 recreation/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 landowner/developer allowing the Team to enter the property for the purposes of a review and a statement identifying the specific areas of concern the Team members should investigate. When this request is reviewed by the local Soil and Water Conservation District and approved by the King's Mark RC&D Executive Council, the Team will undertake the review. At present, the ERT can undertake approximately two reviews per month depending on scheduling and Team member availability.

For additional information regarding the Environmental Review Team, please contact the King's Mark ERT Coordinator, Connecticut Environmental Review Team, P.O. Box 70, Haddam, CT 06438. The telephone number is 860-345-3977.