

Hidden Woods Estates Subdivision

Derby, Connecticut

KING'S MARK ENVIRONMENTAL REVIEW TEAM REPORT

Hidden Woods Estates Subdivision Derby, Connecticut

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
Planning and Zoning Commission
Derby, Connecticut**

January 2000

**CT Environmental Review Teams
1066 Saybrook Road, P.O. Box 70
Haddam, CT 06438
(860) 345-3977**

Acknowledgments

This report is an outgrowth of a request from the Derby Planning and Zoning 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 Tuesday, December 14, 1999.

Dawn McKay	Biologist/Environmental Analyst III DEP - Natural Resources Center (860) 424-3592
Kevin O'Mara	Senior Planner Valley Regional Planning Agency (203) 735-8688
Christopher Stone	Stormwater Engineer DEP - P.E.R.D. (860) 424-3850

I would also like to thank Leonard Waleski, chairman, planning and zoning commission, Theodore Estwan Jr. and Ken Moffat, members, planning and zoning commission, David Dodes, Derby planning consultant, Fred D'Amico, engineer for the applicant, David Lord, soil scientist for the applicant, and Richard Volo, applicant, for their cooperation and assistance during this environmental review. Please see the appendix for a letter regarding ERT assistance in reviewing inland wetland concerns,

and the DEP wildlife biologist was unable to provide review comments due to time constraints.

Prior to the review day, each Team member received a summary of the proposed project, location and soils maps and additional reports. During the field review Team members were given complete plans. 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 applicant. This report identifies the existing resource base and evaluates its significance to the proposed use, 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 the review of this proposed subdivision.

If you require additional information please contact:

Elaine Sych, ERT Coordinator
CT ERT Program
P. O. Box 70
Haddam, CT 06438
(860) 345-3977

Introduction

Introduction

The Derby Planning and Zoning Commission has requested Environmental Review Team (ERT) assistance in reviewing a proposed residential subdivision.

The Hidden Woods Estates subdivision is ±33 acres in size and is located in the eastern portion of Derby between Jeanetti Drive, Ida Avenue, Albert Avenue, Harold Avenue and Marshall Lane. Seventeen single family house lots are proposed with lots ranging in size from .5 acres to 6.48 acres. The homes will be served by public water and sewer. Two parcels will be deeded to the city as open space. One detention pond is proposed.

Objectives of the ERT Study

The ERT report will assist the commission in their assessment of this project. Information was requested on stormwater management, land use and site design, wetland impacts and wildlife impacts. The Team wetland specialist did not participate on this review (see appendix for policy letter) because the Derby Inland Wetland Commission would have closed their public hearing prior to this report being issued. By DEP policy the Inland Water Resource Division provides technical assistance only to those agencies responsible for administration of the Inland Wetlands and Watercourses Act (IWWA). Also, the Team wildlife biologist was not able to conduct a review of the project due to time constraints.

The ERT Process

Through the efforts of the Planning and Zoning Commission this environmental review and report was prepared for the City of Derby.

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

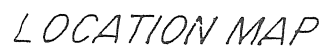
The review process consisted of four phases:

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.

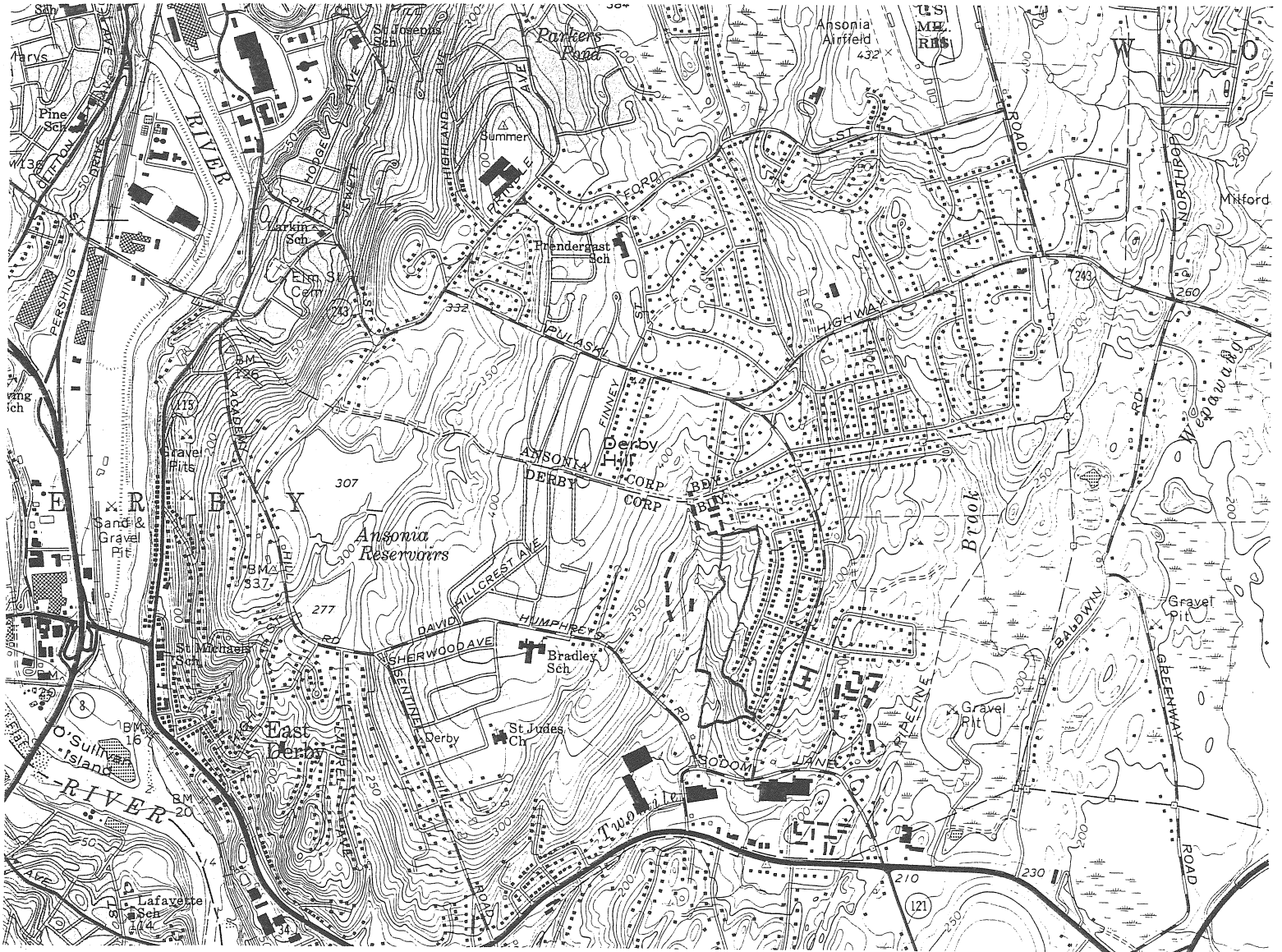
The data collection phase involved both literature and field research. The field review was conducted on Tuesday, December 14, 1999. The emphasis of the field review was on the exchange of ideas, concerns and recommendations. Being on site allowed Team members to verify information and to identify other 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.

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Topographic Map
Scale 1" = 2000'



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 occurring 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 Environmental & Geographic Information 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.

Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEP for the proposed site.

Stormwater Management

The Hidden Woods Estates is a proposed 33 acre, 17 lot subdivision with 12 lots fronting on an extension of Jeanetti Drive, 4 lots with access to the end of Albert Avenue and one lot off the end of Ida Avenue. The lots will be served by city water and sewer.

Approximately 6 acres will be deeded to the city as open space. A drainage swale, which flows southwest into an existing brook, is along the west side of the property. Much of this swale and all of the brook are bordered by wetlands. The site topography ranges from grades of 2% to 40% with an average of 10-15% grades off Jeanetti Drive to the north and 20-40% grades at the south end of the site. The site is bordered on all sides by residential development.

Most of the lots will front on a 450 foot extension of Jeanetti Drive. A city sewer line runs north to south through the site along the road alignment. The proposed drainage system consists of an extension of the existing Howard Drive outfall. This system will connect to the existing outfall and then collect a series of proposed catch basins. The system will eventually discharge to a proposed riprap swale and then back into the existing drainage swale. This swale will then be diverted into a proposed detention basin, which then discharges back into the swale. The other five (5) lots of the subdivision will not require road improvements but will be served by driveways off existing roads. There is no drainage system proposed for these lots. All stormwater discharges will be sheet flow.

The design plans indicate that during construction silt fence will be used along the perimeter of disturbed areas. In addition, the construction should be phased, where possible, to minimize the area of soil exposure at any given time. Gravel dam reinforcement of the silt fence should be considered in areas where length, steepness of slope or area of slope present the possibility of high flows or concentrated flows. To prevent, as much as possible, the transport of sediment on the site, gravel and silt fence

check dams may also be provided along the roadway shoulders and any diversion swales. Catch basins must also be protected during construction.

The General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities requires that sedimentation storage be provided for drainage areas greater than two (2) acres. The detention basin may serve in this capacity but details should be included on the plans indicating how this will function during construction. An energy dissipator should also be shown at the outlet of the basin, as well as the proposed drainage outlet to the riprap swale. A simple riprap channel is not sufficient. To address long-term sediment removal as required by the general permit, the outlet structure of the detention basin should be modified to provide sediment storage. Otherwise, a swirl-concentrator sediment chamber must be included in the drainage system. A maintenance schedule must also be included for all erosion and sedimentation control measures and structures both during construction and for long-term maintenance. The construction, stabilization and maintenance of the proposed detention basin should also be addressed.

The slopes at the south end of the site are particularly steep. Special slope stabilization measures will likely be necessary for both the cut and fill slopes required to build houses and driveways there. These should be indicated on the plans. The use of erosion control blankets may be appropriate on these slopes. A schedule for installation and maintenance of these slopes should be included.

One way to reduce the impact of stormwater discharges is to reduce the discharges themselves. The town and applicant may want to investigate means of reducing runoff from the site. This could involve the elimination of curbing for portions of the roadway system, allowing sheet flow to disperse and infiltrate rather than discharge to the drainage system. One means of reducing runoff has already been employed by segregating and infiltrating roof runoff.

A registration for the General Permit for the Discharge of Stormwater and Dewatering Wastewater from Construction Activities must be submitted at least 30 days prior to the start of construction. A stormwater Pollution Control Plan must also be prepared and submitted at the same time if the project will disturb over ten (10) acres total. In general, erosion and sediment control measures utilized must be appropriate for a site of varying grades adjacent to a sensitive wetland and watercourse. Construction sedimentation basins or swales shall have a capacity of at least 134 cubic yards per acre drained. The detention basin may be modified to function as a sedimentation basin during construction. Disturbed areas to be left bare for over 30 days will receive temporary seeding or heavy mulch. All disturbed areas must be seeded as soon as possible. No areas may be left bare by the end of the planting season. Care must be taken to properly stabilize seeded areas with mulch and/or geotextiles. Properly constructed and maintained, the development should have minimal impact on the adjacent wetlands and watercourses.

Planning Review

The Record Subdivision Map shows a 33 acre site with 17 lots ranging in size from 0.5 acres to 6.48 acres. In addition there is a detention pond area of 1.49 acres and two open space parcels, Parcels A & B, to be deeded to the city. Parcel A consists of 3.79 acres and Parcel B is 1.8 acres.

One of the principal issues with the subdivision concerns the number of interior lots to be allowed. The subdivision regulations in Section 25-6 state that no more than 2 interior lots with an easement or right-of-way not less than 20 feet in width connecting to a street line will be permitted. The proposed subdivision shows lots 1, 2, 3, 6, 7 and 14 with 20 foot wide strips connecting them to the street line.

Another issue with the subdivision is the lack of turnarounds. There is no existing or proposed turnaround at the end of Albert Avenue. At the end of Ida Avenue, the proposed turnaround is shown with one segment missing on the eastern side. The turnaround regulation is found in section 3.6.7 of the Derby Subdivision Regulations.

The Team planner found almost all of the lots to be in the R-10 Zone which requires a minimum lot area of 8,750 square feet. The project engineer felt that the property was in the R-15 Zone which requires a minimum of 15,000 square feet (see copy of the zoning map - Figure 3). The size of all the proposed lots is well above minimum.

The above issues need to be resolved, especially those concerning the number of interior lots.

ZONING MAP

OF THE

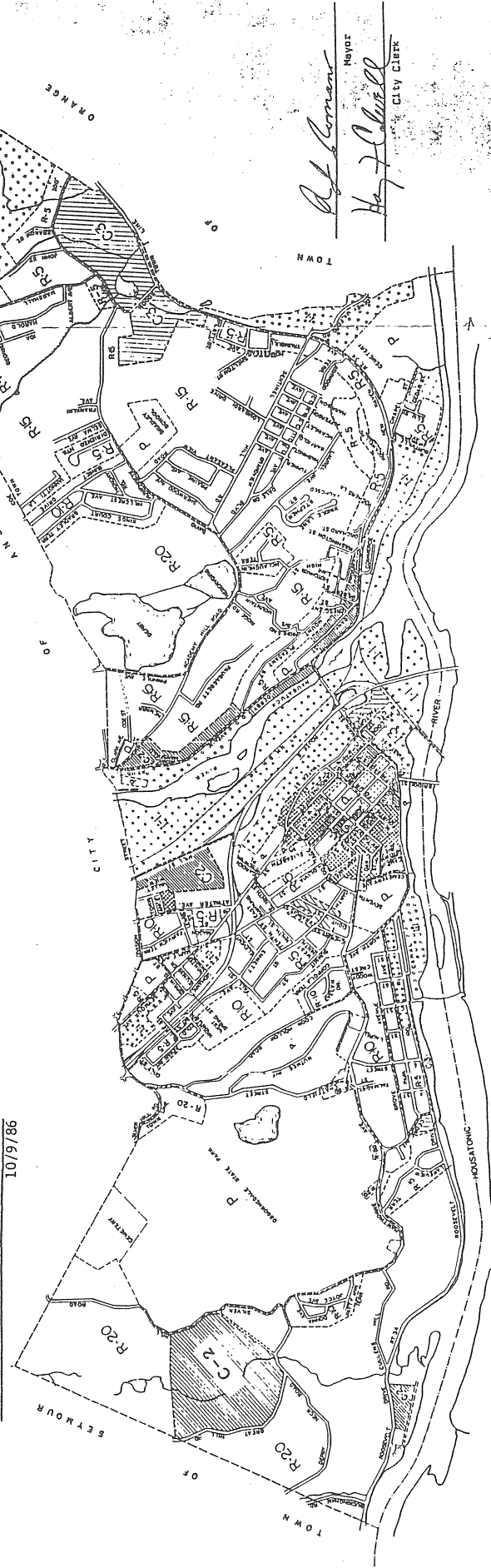
CITY OF DERBY

NEW HAVEN COUNTY, CONNECTICUT

MAY-1969
Including Certain Recent Amendments
10/9/86

LEGEND

	PUBLIC DISTRICT		C-2 DISTRICT
	SINGLE OR TWO FAMILY RESIDENCE DISTRICTS		C-3 DISTRICT
	RM-MULTIPLE DWELLING		I-INDUSTRIAL DISTRICT
	C-1 DISTRICT		CENTRAL BUSINESS DISTRICT



As corrected by resolution of the Derby Zoning Commission adopted August 27, 1987 with reference to map code for hatch pattern area between Silver Hill Road and Great Hill Road.

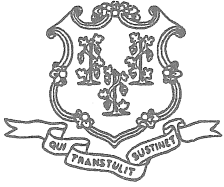
DERBY ZONING COMMISSION

Chairman

Clerk

Figure 3

Appendix



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



BUREAU OF WATER MANAGEMENT

December 13, 1999

RECEIVED DEC 20 1999

Ms. Elaine Sych
ERT Coordinator
PO Box 70
Extension Center
Haddam, CT 06438-0070

RE: Hidden Woods Estates Subdivision, Derby, CT

Dear Ms. Sych,

You requested my participation as a member of an Environmental Review Team as a wetland specialist. It is the policy of this division to provide technical assistance on matters regarding inland wetlands and watercourses to those municipal agencies responsible for the administration of the Inland Wetlands and Watercourses Act (IWWA). Such assistance is generally not offered to those commissions, such as planning and zoning commissions, who do not operate under the authorization of the IWWA. In this case, I understand that the Derby Inland Wetlands Commission has closed their public hearing on this matter and will be forwarding their findings to the Beacon Falls Planning and Zoning Commission for their consideration. It would not be appropriate for this office to provide assistance on this matter at this time.

Please call me at (860) 424 -3903 if you should have any questions or comments.

Sincerely,

Douglas Hoskins III
Environmental Analyst III
Inland Water Resources Division

cc: Dr. L. Waleski, Chair, Derby Planning and Zoning Commission, City Hall, 35 Fifth St., Derby, CT 06418

file: Derby TA

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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.