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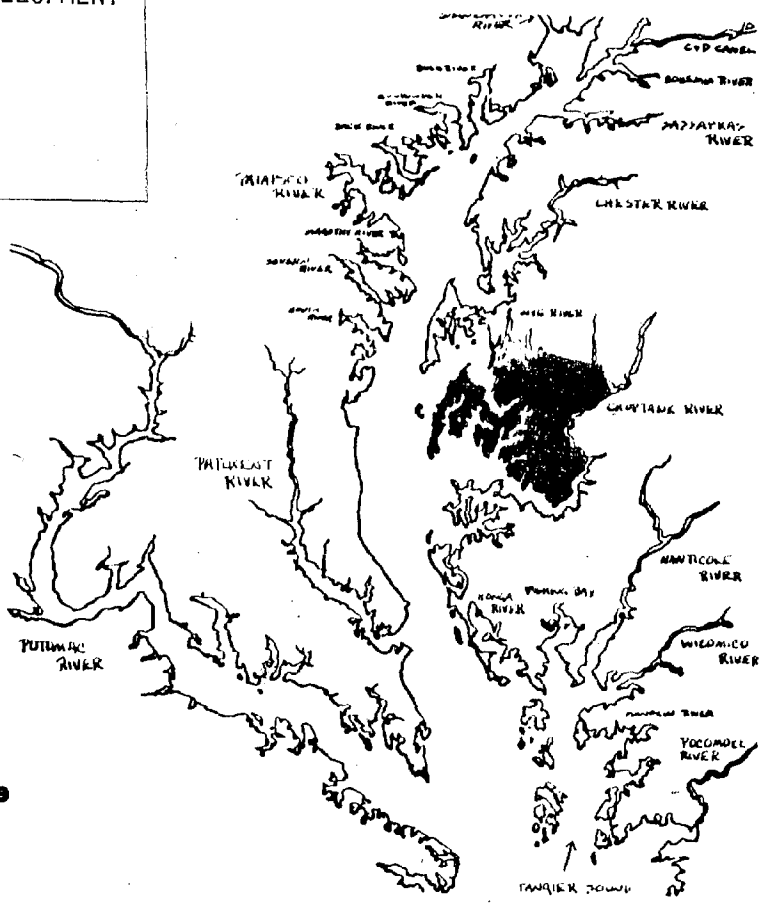
CHESAPEAKE BAY CRITICAL AREA PROGRAM
TALBOT COUNTY, MARYLAND

GUIDE FOR LOCAL PROGRAM DEVELOPMENT
A REFERENCE MANUAL



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Talbot County Planning Office

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June 1986

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CHESAPEAKE BAY CRITICAL AREA PROGRAM,
TALBOT COUNTY, MARYLAND

A REFERENCE MANUAL AND GUIDE

FOR

LOCAL PROGRAM DEVELOPMENT

GC1021.M3C547 1986
#40997491

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Preparation of these documents was made possible with funding provided by Maryland Coastal Zone Management through a grant from the Office of Ocean and Coastal Resource Management.

Introduction

This report has been prepared to assist Talbot County in preparation of a local government program which is responsive to the requirements of the Maryland Chesapeake Bay Critical Area Law (Chapter 794, Laws of 1984), as well as Commission promulgated criteria recently adopted by the Maryland General Assembly in 1986.

Chapters I and II of this report represent a catalog of information from which the County may select appropriate tools to support information needs in completing local program components. Report I identifies and assesses the adequacy of existing information available to the County concerning management measures for a series of habitat areas of concern identified in promulgated criteria. For each habitat area of concern sources of information were reviewed to determine; first, that they were readily available, second, to determine in what format they currently exist and whether or not such information would need to be reformated to be of value or have real utility for County use. Finally, information sources were evaluated in terms of their capacity to provide information to the County for development of a local program, management of habitat areas of concern, or more specifically to provide the County with clear tools that could be translated into ordinances or development performance criteria and standards to assure management practices were instituted at the time of development to minimize impacts to the range of fish and wildlife habitat areas of concern discussed.

Chapter II identifies and assesses information available to the County concerning lands within the County which may be characterized as areas with significant development constraints. These areas include areas with hydric soils, soils with a high "K" factor or erodability factor, areas which have severe limitations for septic systems as well as areas that are subject to 100 year storm events, and therefore characterized as in the flood plain of Talbot County. These areas together with other areas, such as areas subject to high rates of wave action and shoreline erosion, which would suggest significant development constraints were considered, again in the context of the information available for each subject area, either in reference or map form, that would have utility to the County in developing its local program under the Critical Areas Law and Criteria.

Both Chapters I and II are provided in a tabular form that will permit the County to continue to add or delete information for reference purposes in developing a local program.

The information gained from completion of Chapters I and II formed a baseline for Chapter III. Chapter III has been designed to provide the County with a work program for completion of all work elements necessary in meeting the requirements of the Maryland Chesapeake Bay Critical Areas Law and Criteria. Problems, issue areas and information gaps identified in Chapters I and II, as well as reformating requirements evident through work completed in Chapters I and II, basically result in the identification of key issue areas, or problem areas on which the County will need to focus attention and/or gather additional information in order to complete a local program responsive to the legal requirements.

The recommended work program provided is skeletal in its framework, and is designed to withstand adjustments which may be prompted by State agencies shifts in their programs designed to support local implementation of the Critical Areas Law. Given the context in which State agencies are clearly reviewing programs and refining programs to better assist local governments in addressing Critical Areas legal requirements, such a skeletal framework is, in the opinion of the consultant, necessary to permit adjustments. By way of example, the Critical Areas Commission has, during recent months, been preparing a handbook designed to assist local governments in complying with Chesapeake Bay Critical Areas Law. At present, no sources of information that would serve as reference materials or specific tools to locals have been enumerated in the handbook. The final form of the handbook will represent the Commission's perspective on degree of compliance with certain program components which may be required, and therefore upon completion may require modification of the skeletal framework.

In addition, a number of line agencies within Maryland's Department of Natural Resources, and Department of Mental Health and Hygiene, are expected to provide either mapped information or technical assistance to local governments, prompted by the law and current interdepartmental discussions concerning the manner in which local government can be effectively assisted by these State sister agencies. While a number of these line agencies may ultimately provide effective local government assistance, the degree to which such assistance can be provided and in what components of the program they will be provided is as yet not completely determined. Shifts in State agency programming to assist local governments will be a second variable influencing the manner and degree of effort required by the County to develop it's local program, as these decisions/adjustments and technical assistance roles become better defined changes to the work program provided has been prompted.

CHAPTER I.

Chapter I - Habitat Protection Area

Introduction

Chapter I provides Talbot County with an identification and assessment of existing information relative to the management of important fish and wildlife habitat areas in Talbot County with particular emphasis on the requirements of the Chesapeake Bay Critical Areas Criteria and Law. The focus of the report is to evaluate the utility of existing information and to relate this information base to the resource management programs that the County will need to incorporate into a Local Program.

There is a great deal of information related to habitat areas that are of concern to Talbot County in the preparation of their local program as required by the Criteria and Law, however the nature of most of the available information is such that it will not have direct and immediate utility for the County program. These habitat areas include significant plant and wildlife habitats, non-tidal wetlands, forests and developed woodlands, threatened and endangered species habitats and those of species in need of conservation, and anadromous fish spawning areas. Each area or category of habitat as defined in the Chesapeake Bay Critical Areas law and criteria are discussed in a separate section.

For each type of habitat area the information sources are broken out into two major categories, Key Information Sources and Other Information Sources. Information sources include mapped information, reference documents, general information germane to the habitat area, and local, state and federal regulations which may influence or effect management of the resource.

Key Information Sources which are included at the end of each habitat resource and area of development constraint section are those maps which are felt to be the most useful and likely sources that the County will use to prepare and/or administer the Local Program. These include sources useful in locating and identifying resource areas and for establishing regulations and processes which will ensure that the resources are managed as required under the Chesapeake Bay Critical Areas Program.

Other Information Sources which are included in an Appendix will generally be more useful to the County in the consideration of coordination tasks within the local program, e.g., coordination with the regulatory activities of other local agencies, and the State and Federal governments, in the establishment of policies for habitat areas out of the critical areas, and in educational efforts, should the County undertake such tasks. Additionally, other information sources selectively provide broad discussion of the habitat area of concern. Generally, while a host of references are listed for each habitat areas of concern, few can be realistically considered "key" sources which are readily applicable and useful to the County in its efforts to develop a Local Program in a timely manner.

What becomes obvious from a review of the criteria and available information sources is that a great deal of the information and assistance that the County will require is not yet available in a form that the County can readily put to use in the preparation of their Local Program. The Maryland Department of Natural Resources has indicated that it will provide assistance in the development and refinements of the needed information. The anticipated level of effort that the County will have to exert in program preparation management of several of the resource management areas will be greatly dependent on the timely availability of these pieces of key information. Specifically, the Maryland Department of Natural Resources has indicated that it will provide by June 1986:

1. List of Designated Species Rare and Threatened species, species in need of Conservation, and species proposed for such designation.

2. Colonial Water Bird Nesting Areas on Wetland Maps (Scale 1" = 200')

3. Waterfowl staging and concentration areas on Wetland Maps (Scale 1" = 200')

4. Anadromous Fish Spawning Areas

In addition to the above information the Department of Natural Resources has also indicated that there will be assistance available to the County to fill other key information and management gaps, notably:

1. The Maryland Forest, Park and Wildlife Service will assist the County in the mapping of riparian forests and

large forests that support interior dwelling birds. (The Department will also provided assistance to the County in mapping forested areas generally in the County's Critical Area.)

2. The Maryland Department of Natural Resources will assist the County in the development of the non-tidal wetlands element of their Critical Areas program, including the development of appropriate mitigation procedures.

3. The Department of Natural Resources will be refining its information this summer on the location of and possible management measures for designated threatened and endangered species and those species proposed for designation.

4. The Natural Heritage Program will be developing information on other significant plant and wildlife species including their life histories and characteristic habitats.

5. Agencies of the Department of Natural Resources and other State agencies will assist the County in individual site reviews and establishment of management measures in the case of certain habitat protection areas.

The timely submission of the County's Local Program will depend on the acquisition of the information and assistance noted above. The preparation of this Report assumes that the Maryland Department of Natural Resources will deliver the required information as indicated. If the responsibility for acquiring this information falls to the County, the level of effort to develop the Local Program will be increased substantially. The County would likely be unable to gather this information from existing information sources, and would have to acquire professional and technical assistance in order to meet the prescribed deadlines for Local Program submission.

In addition, for the purpose of determining management approaches, the consultant has assumed that where the County is given the option to make final determination of the area extent and nature of a habitat or other area and the protection measures that are required on a site specific basis they will opt for this approach as opposed to regulating management solely from mapped information. The County will likely want to use existing mapped information whenever possible as a system of red "flags" maps

which indicate the presence of a resource on or in the area of the site and make determination of the exact location and characteristics of such resources part of the site submission requirements and as such pass on the major responsibility for final determination of their location to the applicant for a development activity. Given the nature and extent of existing available information, we feel the County will likely opt to take this approach.

The implications of the criteria are that, at least within the critical area and possibly in other designated areas outside the critical area boundary, the County will either have to, or want to, implement management measures required and/or suggested by the Critical Areas Commission. These management measures will have to be added to current County regulations and guidelines, many of which will likely appear as site plan requirements and performance standards for development activities within the Critical Area. The consultant assumed that in most cases the County would not want to implement additional management measures beyond those embedded in the Criteria, simply to minimize the amount of additional ordinance requirements that will be viewed as onerous by the County. There is an implication in this assumption that the management measures prescribed in the Critical Areas Criteria, including the site reviews that will be done in cooperation with State agencies, are adequate to protect the habitat resource area and provide for the continued viability of the habitat area.

It was also assumed that the County would not expand the Critical Area Boundary beyond the limits required by the Criteria. The County may decide to have the Critical Area encompass additional habitat areas at some point, but it was assumed that this would more likely be addressed as part of the County's Comprehensive Plan update.

The County, however, may want to implement some of the management measures developed for certain types of plant and wildlife habitat in the Critical Area, such as rare and threatened species habitat, non-tidal wetlands, etc., Countywide in order to provide adequate protection to the County's natural resources.

Within the Chapter on habitat areas there is a discussion of the adequacy of the Key Information Sources for development and implementation of management measures as required by the Chesapeake Bay Critical Areas Program and a discussion of the management approaches the County can take to manage each area.

Habitat Protection
Areas

SECTION I Habitat Protection Areas

Overview of the Chesapeake Bay Critical Areas Program Development Requirements

The County is required to prepare five elements which will constitute the Habitat Protection Area Plan. These elements are:

1. Buffer Management Guidelines

2. Non-tidal Wetlands Protection Program (see Section II this Chapter)

3. Threatened or Endangered Species and Species in need of conservation protection regulations (see Section III this Chapter)

4. Plant and Wildlife Protection Program (see Sections IV and V of this Chapter). Habitats identified for protection include:

   - colonial water bird nesting areas

   - areas of concentration of waterfowl

   - riparian forests

   - relatively undisturbed, large forest patches which support breeding populations of forest interior dwelling birds

   - other significant plant and wildlife habitat including certain plant or animal communities which are the best examples of their kind in Maryland and plant and wildlife habitat of local significance

5. Anadromous Fish Spawning Streams protection regulations (see Section 5 this Chapter)

6. Aquatic Resource Areas, e.g., Submerged Aquatic Vegetation, Oyster Beds, etc.

Overall Management Considerations

In the case of Limited Development and Resource Conservation Areas the County will want to require that the developer determine if any Habitat Protection Areas as designated by the County exist on the site or if development on the site will effect such areas off-site. Habitat Protection Areas should be defined as per the Criteria and designated as areas where habitat area protection measures are required.

Where such areas exist the County will want to include the following site design standards to local zoning and subdivision controls:

1. Roads, bridges, and utilities cannot be located in these areas unless no feasible alternative exists and in no case can they be located in the required buffer area.

2. Where these activities must cross such areas designed, constructed, maintained to provide maximum erosion protection, and to maintain hydrological processes and water quality.

3. The developer must identify, retain and protect wildlife corridors and incorporate a wildlife corridor system that connects largest undeveloped part of site or most vegetated part of site with similar tracts adjacent to the site.

4. The developer must protect designated habitat areas that are located within forest or developed woodlands identified or to be created on the site.

The Criteria suggest that the County shall ensure maintenance of wildlife corridors by requiring conservation easements, restricted covenants, and the like. The County will need to add this requirement to the final site plan approval process along with the posting of other surety measures already required or required to assure elements of the Local Program, e.g., reforestation assurances. The 100 foot buffer requirement, as modified to include soils with development constraints, will encompass many of the habitat protection areas which will, in and of itself, provided a minimum level of protection.

Non-tidal Wetlands

SECTION II NON-TIDAL WETLANDS

Overview

At a minimum, the Local Critical Areas Program for Talbot County will have to address the required level of protection for selected non-tidal wetlands as established in the Critical Areas Criteria. In brief, the Critical Area Criteria require that the County:

1) provide protection for the palustrine wetlands of one acre or larger.

2) protect palustrine wetlands not shown on the National Wetlands Inventory Map that are hydrologically connected to streams, tidal wetlands or tidal waters must be identified and protected.

3) protect other non-tidal wetlands "which are determined to be of special significance to fish, wildlife or plant habitat by the Maryland Natural Heritage Program, the Coastal Resources Division,or the Maryland Forest, Park and Wildlife Service of the Maryland Department of Natural Resources, the local jurisdiction, or other appropriate agencies."

The Criteria require that the County identify these non-tidal wetlands and provide for the implementation of the management measures outlined by the Critical Areas Commission. The following information sources will assist the County in meeting the program requirements.

Management Considerations

Unlike tidal wetlands which have a unique status in terms of Maryland regulations, non-tidal wetlands are more at-risk due to adverse impacts associated with development because they do not enjoy a clear legal status in the State. According to guidance provided by the State on the Critical Areas Criteria the County is required to provide protection for those non-tidal wetlands classified as "palustrine" . Specific language incorporated into the Talbot County Local Program should indicate that only four of

the eight classes of "palustrine" wetlands require specific actions on the part of the applicant, those being, aquatic beds, emergent, forested, and scrub-shrub and the detailed descriptions of these wetlands area found in Classification of Wetlands and Deepwater Habitats of the United States, Publication FWS/OBS-79/31, December 1979, Fish and Wildlife Service, U.S. Department of Interior.

These wetlands have been mapped by the U.S. Fish and Wildlife Service as part of the National Wetlands Inventory using the classification system in the publication cited above. These maps are at a scale of 1"=2000'. Copies of these maps which are housed in the Water Resources Administration, Maryland Department of Natural Resources have been provided as part of this project. The County will want to use these maps as part of its local program to satisfy the requirement that the County identify locations in the County where "palustrine" non-tidal wetlands may exist and will further want to add application requirements for development include a review of these maps. If the County opts to have the non-tidal wetlands shown on zoning maps or maps recently prepared by Robert Rauch Associates the cost of taking the information off existing map sources would be considerable and unnecessary expense insofar as existing mapped information is at a scale of 1"=2000' and not easily or accurately transferred to the County's 1"=600' system and the National Wetland Inventory Maps are not a complete record of non-tidal wetlands.

The criteria also require that the County provide protection for the palustrine wetlands of one acre or larger. In addition any palustrine wetlands not shown on the National Wetlands Inventory Map that are hydrologically connected to streams, tidal wetlands or tidal waters must be identified and protected. Identification of such wetlands will likely to be provided at the time of site visits to a proposed development site.

In addition the County is required to protect other non-tidal wetlands "which are determined to be of special significance to fish, wildlife or plant habitat by the Maryland Natural Heritage Program, the Coastal Resources Division,or the Maryland Forest, Park and Wildlife Service of the Maryland Department of Natural Resources, the local jurisdiction, or other appropriate agencies." Non-tidal wetlands falling into this category may be identified prior to completion of the local jurisdictions Critical Areas Program. It is assumed that the State will provide the necessary identification and descriptive information on the location of these non-tidal wetlands. It should be noted that there will be overlap between measures for protecting non-

tidal wetlands and other habitat protection requirements in the County program and that in such cases, the more restrictive requirements apply. For example, non-tidal wetlands may occur within the 100 foot buffer required throughout the critical area and consequently the buffer will be more that 25 feet as prescribed.

The existing Talbot County Flood Plain Management Ordinance contains specific provisions relating to development in non-tidal wetlands located within the 100 year flood plain which places significant limitations on construction in tidal and non-tidal wetlands. It essentially limits construction to water related structures (See discussion in Chapter 2, Section III).

The Maryland Department of Natural Resources, Tidewater Administration offers Non-Tidal Wetlands Training and Educational Workshops for County staff and other interested groups or individuals which provides technical training in the identification and management of non-tidal wetland resources. The training covers wetland plant identification, hydric soils, and wetland management. The County will want to consider having staff receive this training.

The criteria require that the County institute two types of protection measures: 1) at a minimum establishment of a 25 foot buffer strip around the wetland in which new development activities or activities which may disturb the wetland are prohibited. There are provisions for encroachment into the buffer strip if findings are made that the activity will not adversely affect the wetlands or the wildlife contained therein); and 2) the hydrologic regime of the wetland is protected by minimizing land disturbances in the drainage area of the wetland.

This latter protection measure implies that if development is proposed in the buffer area of a non-tidal wetland that the drainage area for the wetland must be identified from topographic maps or surveys and that the developer will have to demonstrate that the proposed development activities is designed in such a way as to maintain the surface and subsurface water regime of the wetlands on the site and on adjacent lands.

Although alteration of non-tidal wetlands in the buffer area is not permitted, under some circumstances alterations to non-tidal wetlands located outside the buffer is permitted. The criteria for these circumstances are that applicant demonstrate that the

alteration be associated with activities or operations which are either water dependent or of substantial economic benefit and that the alteration is unavoidable. The Critical Areas Commission will provide guidance to local jurisdictions for assessing "substantial economic benefits" and for determining the kinds of analyses that applicants should conduct to demonstrate that alternatives to the project were pursued and found not feasible which the County will want to incorporate into its regulations.

When an acceptable combination of the above circumstances are shown to warrant approving alterations the applicant must prepare a plan of mitigation which meets the mitigation performance criteria that the applicant compensate for the impact by replacing, or providing a substitute for the wetland. Mitigation is not required for alterations to temporarily flooded or drier wetlands where the alteration is the result of activities that create new farm land. Specifically the County will want to include the requirement that mitigation plan must meet these criteria:

1. measures provide water quality benefits and plant and wildlife habitat equivalent to that of the wetland to be altered or destroyed

2. mitigation measures are affected as near to the affected area as possible

3. mitigation plans are submitted for review and comment to the Coastal Resources Division of the Maryland Department of Natural Resources, the Office of Environmental Programs of the Maryland Department of Mental Health and Hygiene, and the U.S. Fish and Wildlife Service, Annapolis Office.

4. if the mitigation plan is approved the County ensure that the applicant implement the required mitigation measures, e.g., requires a surety bond, escrow, etc.

Mitigation plans for agricultural operations are to be reviewed by the local Soil Conservation District with the assistance of the Department of Natural Resources. However, the Commission expects that local jurisdiction must evaluate the project with regard to its economic benefit and whether alternative measures exist to the project. Assistance will be available from the Department of Natural Resources in developing non-tidal wetlands

mitigation procedures.

The 1982 Maryland Standards and Specification for Soil Erosion and Sediment Control contains information on construction and vegetative practices used to control and stabilize the waterborne transport of soils, much useful information on how to prevent impacts to wetlands caused by sedimentation, principals for reducing soil erosion and sedimentation in developing areas. It was jointly published by by the Water Resources Administration, Maryland Department of Natural Resources; the U.S.Department of Agriculture; the Soil Conservation Service; and, the Maryland State Soil Conservation Committee.

Habitat Protection Areas

Resource Area: Non-Tidal Wetlands

Source of Information: U.S. Fish and Wildlife Service, National Wetlands Inventory Maps

Scale: 1"= 2,000' on U.S.G.S. Quad Sheet map base

Type: Paper

Date: 1981

Availability: Talbot County Planning Department and Maryland Department of Natural Resources,

Existing Regulations, Ordinances, and Program Affecting Habitat:

The existing Talbot County Flood Plain Management Ordinance contains specific provisions relating to development in non-tidal wetlands located within the 100 year flood plain which places significant limitations on construction in tidal and non-tidal wetlands. It essentially limits construction to water related structures (See discussion in Chapter 2, Section III).

Comments:

The key identification tools that the County will have to rely on for palustrine non-tidal wetlands is the document Classification of Wetlands and Deepwater Habitats of the United States, Cowardin, et al. and the National Wetland Inventory Maps (scale 1" = 2000') for Talbot County. The Talbot County National Wetland Inventory are prepared by the U.S. Fish and Wildlife Services, Biological Services Program, but maps are more readily obtained and at no cost to the County from the MD Department of Natural Resources, Water Resources Administration.

The map scale, 1"=2000', is not compatible with the County Zoning maps, 1"=600' or the State Wetland maps, 1"=200', the most likely map scale choices the County may opt for if it intended to regulate non-tidal wetland resources from a composite or overlay map base. Considerations for establishing a regulatory are

discussed in Non-Tidal Wetlands Protection: A Handbook for Maryland Local Governments which is available from Coastal Resources Division of the Maryland Department of Natural Resources.

The National Wetland Inventory Maps are the most complete source of information for identifying non-tidal wetlands, however an occasional wetland area may have been missed since the maps are prepared from aerial photo interpretation and as a consequence non-tidal wetlands may have been obscured by tree cover or otherwise missed.

The scale of the maps makes it difficult to determine to the exact boundary and location of a non-tidal wetland in relation to a particular proposed development scale. Also wetlands smaller than an acre that are hydrologically connected to streams or other waterbodies probably are not indicated on the maps, thus use of the maps will be likely have to be supplemented by field surveys at the time of development activity. The hydric soils list and vascular plant species list are valuable references to determine if a non-tidal wetland occurs on a particular site and in the determination of the inland boundary of a non-tidal wetland. It should also be noted that non-tidal wetlands are often found immediately adjacent to tidal wetlands.

The Maryland Tidewater Administration offers Non-Tidal Wetlands Training and Educational Workshops for County staff and other interested groups or individuals which provides technical training in the identification and management of non-tidal wetland resources. The State Program contact is either Denise Clearwater or Mike Hollins who can be reached at (301) 269-2784 or 269-3782. The training covers wetland plant identification, hydric soils, and wetland management. This training will be important to County staff to be able to make a final determination in questions of the existance of non-tidal wetlands on a site. The County may want to consider providing this service to an applicant for development activity.

Forest & Woodland

SECTION III Forest and Woodland Protection

Overview

In general the County is required by the Critical Areas Criteria to develop a Forest Preservation Plan which includes an identification and designation of forests and developed woodlands of one acre or larger and establishes incentive programs for converting other land uses to forest. "Forests" are defined by the Criteria as, "biological communities dominated by trees and other woody plants covering a land area of 1 or more acres." "Developed woodlands" are defined by the Criteria as "those areas of 1 acre or more in size which predominantly contain trees and natural vegetation and which also contain residential, commercial, or industrial structures and uses."

The regulations require that at least 80 percent of forested land in developments in Limited Development Areas be maintained or compensatory measure provided and that the overall amount of forestland in the County's Resource Conservation Area be maintained.

In addition the County must insure that land owners prepare and file Forest Management Plans for timber harvesting of one acre or larger in Critical Area.

Under the Habitat Protection Area requirements Counties are also required to identify:

a. Existing riparian forests (for example, those relatively mature forests of at least 300 feet in width which occur adjacent to streams, wetlands, or the Bay shoreline and which are documented breeding areas);

b. Forest areas utilized as breeding areas by forest interior dwelling birds and other wildlife species (for example, relatively mature forested areas within the Critical Area of 100 acres or more, or forest connected with such areas.

Management Considerations

In general the County is required to prepare a Forest Preservation Plan and in certain circumstances require Forest Management Plans.

The Forest Preservation Plan must include identification and designation of forests and woodlands of one acre or larger, identify forests included in Habitat Protection Areas, and provide an incentive programs for converting other land uses to forest.

Forest Management Plans are required for timber harvesting of one acre or larger in Critical area. They must be prepared by registered professional forester and be reviewed by the Maryland Forest Park and Wildlife Service through the local District Forestry Board and the project forester. They must also be filed with the local jurisdiction and are to include measures for protecting water quality and Habitat Protection Areas (observing the requirements of Chapter 9), including provisions for preserving the continuity of habitat both geographically and over time.

In preparing their Forest Preservation Plan the County will be required to identify and designate forests and developed woodlands and document the mapping rules used in the identification process. The County will want to add the definitions of "forest" and "developed woodlands" from 14.15.05.01.A. and B.of the Criteria to the appropriate local ordinances and guidelines. As part of the identification process the County must also identify forests that are included in habitat protection areas.

The Forest Preservation Plan will have to include methods by which the County will communicate the requirements for Forest Management Plans and Sediment and Erosion Control Plans to landowners who have forests or developed woodlands in the designated areas and the limitations on cutting in habitat protection areas. The County's program will also have to provide incentives for conversion of lands to forested conditions. Administratively, the County will have to designate a local agency with which to file Forest Management Plans.

The County Forest Preservation Plan will likely:

1. Establish forest and woodland protection policies which at a minimum mirror the policies of the Criteria, namely that the County wants to:

   a. Maintain and increase the forested vegetation in the Critical Area.

   b. Conserve forests and developed woodlands and provide for the expansion of forested areas.

   c. Provide that the removal of trees associated with development activities shall be minimized and, where appropriate, shall be mitigated.

   d. Recognize that forests are a protective land use and should be managed in such a manner so that maximum values for wildlife, water quality, timber, recreation and other resources can be maintained, recognizing that, in some cases, these uses may be mutually exclusive.

2. Establish incentives for conversion of other land uses to forested conditions in the Critical Area.

3. In Intensely Developed Areas require that cutting or clearing of trees associated with existing or proposed development:

   a. minimize cutting and clearing

   b. enhance the forest or developed woodlands resources

   c. prohibit cutting and clearing of trees in Habitat Protection Areas

4. In Limited Development Areas the County will have to establish requirements for two existing conditions: 1) no forest or developed woodlands exist on the site, and 2) forest or developed woodlands exist on the site.

   Where no forest or developed woodlands exist on the site the County will require that 15 percent of the site be established and maintained in forest use.

   Where forest or developed woodlands exist on the site and cutting or clearing of such trees is proposed

require that the developer:

a. designate the forest or developed woodland on the proposed site plan

b. obtain a grading permit before cutting or clearing occurs

c. obtain comments of the Maryland Forest, Park and Wildlife Service

In addition the County will have to establish the following performance standards and limitations on clearing and cutting:

a. all forests cleared or developed are to be replaced on not less than an equal area basis at a location within the Critical Area

b. limit clearing or cutting to no more than 20 percent of the forested area; or

c. permit clearing or cutting of up to 30 percent of forest or developed woodland on a site when trees in excess of 20 percent are replaced at a rate of 1.5 times the amount removed

d. if more than 30 percent of the forest on the site is cleared or a grading and sediment control permit is not obtained, the forest must be replanted at 3 times the total areal extent of the cleared forest

e. the developer provide surety in an amount suitable to assure replacement of forests and developed woodlands when more than 20 percent of such area is removed

f. when the replanting requirements above can not be met by the developer, the developer is required to provide fees-in-lieu of planting adequate to ensure the restoration or establishment of equivalent forest area

5. In Resource Conservation Areas the County the requirements for new development that relate to forests and developed woodlands are the same as for Limited Development Areas.

In order to assess existing forest and developed woodland coverage and to determine if any habitat protection areas are located in forest or developed woodland on a site the County will want to refer to any existing mapped information that is available or prepared in cooperation with the Forest, Park and Wildlife Service and other units of DNR to determine the likely existance of habitat protection areas and areal forest coverage of a site at the time of application for development activity. In addition, information required with an application for development activity should include the requirement that the applicant locate all forested or developed woodlands on the site over one acre in size, describe the forest type and show the areal extent of proposed clearing or cutting. Accurately establishing the base conditions will be important for later determining the percent of clearing or cutting that will occur.

In Intensely Developed Areas where the County is required to enhance the forest or developed woodlands resources a good approach for the County may be to simply adopt a landscape ordinance which incorporates the Criteria requirements to implement the County policy. The County should consider making the landscape ordinance applicable to development in areas that occur outside the Critical Areas as well.

The Talbot County Grading Sediment Control Ordinance should be amended to require that a grading permit be obtained before cutting or clearing occurs. In addition the County will have to decide on who will be responsible for transmission of a proposed site plan which includes clearing or cutting of forests or developed woodland to the Maryland Forest, Park and Wildlife Service, the applicant or County.

In cases where it is clearly demonstrated that replanting requirements above can not be meant and the developer is required to provide fees-in-lieu of planting adequate to ensure the restoration or establishment of equivalent forest area the County will have to determine areas within the Critical Areas where reforestation is practical and effective in achieving the County's policy as part of its program submission and provide that the fees-in-lieu are dedicated to reforestation in the Critical Area. The fees-in-lieu can be determined based on the current cost of the tree species to be planted and the labor cost of the transplanting. The County forester should be able to assist the County in establishing and updating the fee basis and in determining appropriate locations in the Critical Area where reforestation will be practical and effective. These areas may include County parks, on other County owned lands in the Critical

Area and portions of the Critical Areas in Intensely Developed Areas or Limited Development Areas where forest enhancement is sorely needed.

The Maryland Forest, Park and Wildlife Service will assist the County in mapping Riparian Forests which are defined as forests of 300 feet in width or greater adjacent to Bay shoreline, tidal wetlands or tributary streams likely to support targeted birds. It must be demonstrated that development activities, cutting, and clearing will be conducted in a manner which conserves forest interior dwelling bird habitat and protects wildlife corridors. Individual Forest Management Plans can be used as the basis for planned management of wildlife corridors.

The same review criteria apply to Large Forest Areas and relatively undisturbed, large forest patches which support breeding populations of forest interior dwelling birds. The Maryland Forest, Park and Wildlife Service will assist the County in mapping these areas.

DNR is currently preparing a list (see attached draft list of birds under consideration) of the forest interior dwelling birds and guidance for conservation of habitats. The guidance will include the means for determining the presence of the bird species listed and suggested protection and management measures. Information about the extent of these species has been collected in the Maryland Bird Atlas Project and will be made available by the Maryland Forest, Park and Wildlife Service. This information will provide a general description of bird populations in broad areas (the geographical unit of the Atlas Survey is 10 square miles). Characterization of the species on a site specific basis will require a site investigation. Survey techniques will also be described.

Tentative List of Forest Dwelling Bird Species to be Afforded Protection in the Critical Area

COMMON NAME	SCIENTIFIC NAME
Flycatcher, Acadian	Empidonax virescens
*Hawk, red-shouldered	Buteo lineatus
Ovenbird	Seiurus aurocapillus
*Owl, barred	Strix varia
*Redstart, American	Setophaga ruticilla
Tanager, scarlet	Piranga olivacea
Vireo, red-eyed	Vireo olivaceus
Vireo, yellow-throated	Vireo flavifrons
Warbler, black-and-white	Mniotilta varia
*Warbler, hooded	Wilsonia citrina
*Warbler, Swainson's	Limnothlypis swainsonii
*Warbler, worm-eating	Helmitheros vermivorus
*Waterthrush, Louisiana	Seiurus motacilla
Whip-poor-will	Caprimulgus vociferus
Woodpecker, hairy	Picoides villosus
Woodpecker, pileated	Dryocopus pileatus

*Species especially sensitive to disturbance

Habitat Protection Areas

Resource Area: Forested Areas

Source of Information: Aerial Photographs

Scale: 1" = 600'

Type: Mylar and Paper

Date: 1978

Availability: Talbot County Planning Department

Existing Regulations, Ordinances, and Program Affecting Habitat:

Sediment and Erosion Control Ordinance

Comments:

The major apparent information gap for the County in preparing the Forest Preservation Program is the lack of recent mapped information on the location and size of existing forest resources in the Critical Area. In the case of forest resources, recent aerial photography can be useful in identifying forested areas in the Critical Area which should be included in the County's Forest Protection Program. The problem with aerial photography is that if it is not recent it gives little indication of the current extent of forested areas if development or clearing has occurred since the date of the flight. In addition aerial photos do not readily provide information on the habitat value of forested areas to the untrained eye and consequently the County will have to rely on surveys conducted at the time of development to gain a complete picture of the extent and value of a particular forested area.

Technical assistance from the Maryland Forest, Parks and Wildlife Service will likely be more valuable to the County in identifying forested areas as well as in developing managment guidelines. In fact the Criteria specify that these plans are to be developed in cooperation with the Maryland Forest, Parks and Wildlife Service.

In any case, the County will want to require that all forested areas be identified through a site survey conducted at the time of application for development activity. Numerous tree and other vegetation type identification sources that the County may want to make applicants aware of are listed in the Other Information Sources.

Endangered Species

SECTION IV Threatened and Endangered Species and Species In Need of Conservation

Overview

The Critical Area Criteria require the County to follow either/or of the following courses of action as the Local Program relates to threatened or endangered species and species in need of conservation:

1) designate a protection area around the habitats and prohibit disturbances unless shown that they would not cause adverse impacts, or;

2) develop protection programs which can include acquisition, easements, or agreements, specific local regulations, and others.

The two threatened or endangered species of interest to Talbot County at this time are the Bald Eagle and the Delmarva Fox Squirrel. However, sixty additional species have been proposed for designation, approximately 20 of which may be found in State's Chesapeake Bay Critical Areas.

In addition the County must map locations of habitat and develop protection measures jointly with Maryland Forest, Park and Wildlife Service and the Maryland Natural Heritage Program. The County has the option of adopting protection measures as part of the Local Program or of applying protection measures at the time of development activity. In any case there must be adequate public review provided for in the procedure.

Management Considerations

Assuming that the County will not opt to develop a comprehensive protection program that includes acquisition of habitats, conservation easements, cooperative agreements, or the like, for the species covered in this portion of the Habitat Protection Program the County will have to designate protection areas around these habitats as part of the Local Program. The County will have to develop an overall strategy and specific protection measures for when development activity is proposed in the designated protection areas. The County will thus have to

develop site design and procedural requirements that include review and recommendation by appropriate State agencies and a process for public review of each application. Formal public review and hearing procedure will have to include all of the procedural requirements required for such actions as appeal and rezonings. Less formal public review procedures will still require that the County establish a process for notification that meets the intent of the Criteria. It should be noted that many of these habitat areas may be located in the buffer area and are thus provided protection by virtue of location.

For specific sites, the County may want to work with State agencies and conservation organizations to develop detailed protection plans involving land owner agreements, conservation easements, acquisition, etc.

There are many rare plant and animal species in Maryland that have not been designated or prepared for designation as threatened or endangered species. Maryland's Natural Heritage Program is in the process of developing a computerized information base in plant and animal species in Maryland which will include information about their characteristics, habitat, life history and prevelance of occurence at the State and County level. This information will be useful in determining other plant and wildlife species worthy of protection because of their rarity of occurence in the State and in assisting local governments in determining species of local significance.

Habitat Protection Areas

Resource Area: Threatened and Endangered Species

Source of Information: Maryland Department of Natural Resources, Maryland Natural Heritage Program, Threatened and Endangered Species of Maryland, 1984. Maryland Natural Heritage Program Upland Natural Areas Study

Scale: 1" = 1 mile

Type: Paper and data base

Date: 1977 with on-going updates

Availability: Talbot County Planning Office and MD Department of Natural Resources

Existing Regulations, Ordinances, and Program Affecting Habitat:

Maryland and U.S.

Comments:

Maps of known locations will be made available to the County by the Maryland Forest, Park and Wildlife Service of the Maryland Heritage Program. The information provided by the Maryland Department of Natural Resources, Natural Heritage Program, particularly the mapped location of the designated species habitat, is the most important information source that the County would be unable to provide or duplicate in the development of a local program.

Technical assistance from the Maryland Forest, Park and Wildlife Service and the Maryland Natural Heritage Program will be available to the County when any of the identified habitat areas may be effected by a proposed development activity.

The Heritage Program maintains a data base on habitat areas. They also will be conducting further studies on the habitat needs of various species of wildlife and how to manage for retention of habitat areas. The County may want to acquire access to the Heritage Programs data base as a means of keeping an up-to-date information base on the location of significant wildlife habitat areas. State staff personnel have indicated that such a linkage is possible.

A list of rare plant and animal species found in the Critical Area will be available shortly for the Natural Heritage Program. Over the next year the Heritage Program will be collecting and synthesizing information on the characteristic habitats, life history and prevalence or occurence at the State and County level of such species. Such information will be placed into a computerized information system and will be able to be transmitted to County information systems if they have compatible computers. A report also will be produced containing such information by next summer.

Early next year, the Natural Heritage Program in connection with Maryland's Coastal Zone Management Program will be initiating field inventories of likely significant plant and animal habitats on the Eastern Shore in order to gather information on the geographic locations of such significant plant and wildlife species.

SECTION V Plant and Wildlife Habitat

Overview

As guidance to the developer in preparing protection measures the County will want to adopt the following standards and requirements for protection measures:

1. Colonial Water Birds

   Demonstrate that the proposed site design for development activity protects habitat from physical alteration.

   Demonstrate that project scheduling is designed to protect habitat from disturbance during spring nesting.

2. Waterfowl Staging and Concentration Areas

   Demonstrate that the design and layout of the proposed water dependent facilities is done to avoid disturbance to these habitat areas (Note: the County will want to designate areas for water dependent facilities to also meet this requirement to the extent possible).

Management Considerations

Given the nature of the existing information on significant plant and wildlife species, it is likely that procedures requiring field investigations to determine likely locations of such species at the time of review of proposal developments would be the most appropriate approach at the present time to provide protection for such species. Since the Heritage Program data base on each species will be continually updates, having a computerized information system which the Heritage Program can provide tapes or floppy discs for will be an efficient alternative to manual systems for maintaining up-to-date information on such species and their habitats.

There may also be areas in which certain species or number of species are found in unusually high concentrations, The Heritage Program and the Forest, Plant and Wildlife Service, as well as private conservation groups such as the Nature Conservency and the Maryland Ornithological Society, can provide assistance to the County in identifying such areas and in developing appropriate protection measures for them.

Habitat Protection Areas

Resource Area: Colonial Water Bird Nesting Areas and Waterfowl Concentration Areas

Source of Information: Maryland Forest, Park and Wildlife Service

Scale: 1" = 200' Wetland Maps

Type: Paper

Date: Recent

Availability: June 1986

Existing Regulations, Ordinances, and Program Affecting Habitat:

None

Comments:

Maryland Department of Natural Resources has indicated that the mapped information on these habitat areas will be available in June 1986. A tentative list of interior forest dwelling birds has been included in this section. In addition the State will be providing management guidelines and survey techniques for use in the identification and management of interior forest dwelling birds.

Anadromous Fish

SECTION VI Anadromous Fish Propagation Waters

Overview

The Critical Areas Criteria require that the County map streams and related watersheds in areas which are or have been known spawning areas for rockfish, yellow and white perch, and river herring and institute four stream protection measures as a minimum.

Management Considerations

The County is required to protect identified anadromous fish spawning streams located in the Critical Area. The stream protection measures required are:

1) Prohibit introduction or installation of concrete or other artificial surfaces onto bottom of spawning waters

2) Prohibit channelization or other physical alterations which change the course, circulation, velocity, and other characteristics of a stream if it adversely affects the movement of anadromous fish

3) Prohibit the construction or placement of dams or other structures that interfere with fish movement

4) Prohibit construction or repair actitivities from occurring within streams or buffers along streams between March 1 and May 15

In addition the County must identify otherwise designate the watershed for these streams or stream segments for special protection and develop policies and programs to minimize disturbances in the watershed area of these streams. At the site evaluation level, the applicant for development activity should be required to identify the major drainage patterns and determine if the drainage areas on the site discharge into designated streams located on or off the site.

The County will want to adopt policies and performance standards for these watershed areas that minimize development activities or

other land disturbances, maintain or improve stream water quality, minimize the discharge of sediment to the stream, and maintain or increase vegetative cover of watershed. Among the management techniques that the County will want to consider for these watershed areas and other sensitive areas where similar policies are effective is mandatory clustering of development, limitation on impervious surfaces within the watershed, strict sediment and erosion control standards, limitations on grading, clearing and other such activities during the period between March 1 and May 15, and increased buffer area requirements.

Habitat Protection Areas

Resource Area: Anadromous Fish Spawning Waters

Source of Information: Tidewater Fisheries, MD Department of Natural Resources

Scale: 1" = 1 mile for Striped Bass
Sketch maps of other species spawning habitat range within stream segments at no specified scale

Type: Mapped

Date: Current

Availability: To be provided by the MD Department of Natural Resources, Tidewater Fisheries Division

Existing Regulations, Ordinances, and Program Affecting Habitat:

None

Comments:

Aquatic Resources

Section VII Aquatic Resources

Overview

The Critical Areas Criteria require that the County adopt policies which address aquatic habitats. These habitat areas include tidal wetlands, submerged aquatic vegetation, and shellfish beds.

Management Considerations

Aquatic resource areas, although predominantly located in State waters where the County has no jurisdiction, should be considered in the review of any development activity which may adversely impact nearby areas. The buffer requirements should be adequate to protect most of these areas, however in the case of water dependent uses, some aquatic resource areas may be at-risk. Additional mitigation measures may be required in these instances.

Habitat Protection Areas

Resource Area: Submerged Aquatic Vegetation

Source of Information: State Wetland Maps, DNR

Scale: 1" = 200'

Type: Paper

Date: 1978

Availability: Talbot County Planning Department, DNR

Existing Regulations, Ordinances, and Program Affecting Habitat:

Comments:

The Maryland Department of Natural Resources is updating the Wetland Maps and SAV coverage on based an 1985 aerial photo flight.

Habitat Protection Areas

Resource Area: Tidal Wetlands

Source of Information: State Wetlands Maps

Scale: 1" = 200'

Type: Paper

Date: Aerial Photography 1978

Availability: Copies available in the Talbot County Planning Office and copies can be ordered from the Maryland Department of Natural Resources

Existing Regulations, Ordinances, and Program Affecting Habitat:

State Wetland Law

Section 10 of the Rivers and Harbor Act of 1899

Section 404 Permits (Section 404 of the Clean Water Act (FWPCA amended 1977)

Comments:

It is unlikely that additional regulation of tidal wetlands for purposes of managing the resource will be required. Tidal wetlands will benefit from the buffer provisions of the Critical Areas Criteria as well as from other required management and mitigation measures for habitat areas in general.

Habitat Protection Areas

Resource Area: Shellfish Areas

Source of Information: Maryland Department of Health and Mental Hygiene

Scale: 1" = 1000'

Type: Paper

Date: Current

Availability: Maryland Department of Health and Mental Hygiene, DNR

Existing Regulations, Ordinances, and Program Affecting Habitat:

State Health Regulations

Comments:

These areas are regulated by State agencies and additional management measures are not required beyond the buffer provisions of the Criteria.

CHAPTER II.

Chapter II. Areas within the Chesapeake Bay Critical Areas with Significant Development Constraints

Introduction

Project II provides Talbot County with an identification and assessment of existing information relative to the management of areas with significant development constraints with, particular emphasis on the requirements of the Chesapeake Bay Critical Areas Program. The focus of this portion of the report is to evaluate the utility of existing information and to relate this information base to the management features that the County will either need or want to incorporate into a Local Critical Areas Resource Protection Program.

Areas with development constraints of particular concern to the County in preparing their Local Program for the Chesapeake Bay Critical Areas Program include, areas with significant soil limitations (hydric soils, highly erodible soils, and soils with severe septic limitations), steep slope areas, areas subject to high wave action and erosion, areas within the 100 year flood plain, and areas with high water tables (wet soils).

Steep Slopes

SECTION I Steep Slopes

Overview

The Critical Area Criteria define "steep slopes" as slopes of 15 percent or greater. Development in Limited Resources Conservation Areas on steep slopes is prohibited unless it can be shown that such development is the only way to effectively maintain or improve the stability of the slope. Specific buffer management measures that relate to steep slopes are to be included in the County's Forest and Woodland Protection and Habitat Protection program requirements.

In the case of the creation of new agricultural lands in forest and developed woodlands , the activity can not result in the clearing of forests or woodlands on slopes greater than 15 percent or on soils with a "K" value greater than .35 and slope greater than 5 percent. The County is also required to expand the 100 foot buffer that is to be established landward of the Mean High Water Line of tidal waters, tributary streams, and tidal wetlands when it is determined that development or disturbance may impact streams, wetlands, or other aquatic environments. The expansion will be measured at the rate of four (4) feet for every one (1) percent of slope or to the top of the slope, which ever is greater, to include contiguous, sensitive areas including steep slopes, hydric soils or highly erodible soils.

Management Considerations

The County activity will have to make the final determination of buffer requirements at the time development activity is proposed. The topographic maps prepared as part of the Federal Flood Plain mapping effort in Talbot County and the Talbot County Soil Survey should be used as indicators of need for an applicant to prepare a topographic survey of a site.

The baseline information on steep slopes that will be derived from the site topographic survey and the type of development activity proposed will be used by the County to determine the buffer requirements.

Areas with Significant Development Constraints

Type: Steep Slopes

Source of Information: Talbot County Soil Survey

Scale: 1" = 1,250'

Type: Paper

Date: 1970

Availability: Soil Conservation Service

Accuracy and Sufficiency:

Variable but adequate for plan mapping purposes

Extent and Approximate Location of Areas:

Existing Regulations, Ordinances, and Program Affecting Development:

Comments:

The topographic maps prepared as part of the Federal Flood Plain mapping effort in Talbot County and the Talbot County Soil Survey should be used as indicators of need for an applicant to prepare a topographic survey of a site.

The baseline information on steep slopes that will be derived from the site topographic survey and the type of development activity proposed will be used by the County to determine the buffer requirements.

Soils

Section II. Soils With Development Constraints

Overview

The Critical Areas Criteria indicate that soils with development constraints include hydric soils, highly erodible soils, soils with a severe septic limitations, steep slopes, soils within the 100 year flood plain and areas with high water tables. Development on these soils may be allowed if mitigation measures adequate to address the constraint are included and the development will not adversely impact water quality or plant, fish or wildlife habitat.

Management Considerations

The County is not required to map soils with significant development constraints at the time of Local Program submission, however these soils will have to identified at the time a development activity is proposed and appropriate mitigation measures applied.

In the case of soils with severe limitations for onsite septic disposal the County need only rely on the current Health Department Regulations to properly manage these soils when there is no conflict with other requirements of the program, e.g., management of habitat resource areas. The perc test will be the means by which the final determination of septic limitations will be made, the Soil Survey not being absolutely accurate.

Hydric soils are defined in the Criteria as "soils that are wet frequently enough to periodically produce anaerobic conditions, thereby influencing the species composition or growth or both, of plants on those soils" (14.15.01.10, General Provisions). Outside the Critical Area, soils in hydric soils group D present limitations for filtering storm water runoff because they have the lowest rate of infiltration when thoroughly wetted and thus should not be considered as adequate areas for location of vegetated buffers between surface waters and other sensitive habitat and impervious surfaces.

The Critical Areas Criteria require that the County manage highly erodible soils which includes those soils with a "K" factor of as soils on slopes of greater than 15 percent. The Criteria

direct the County to assure that new forests and developed woodlands on erodible soils with a "K" factor of .35 or greater and with slope of 5 percent or greater are not cleared to create new agriculture land. In addition, the County is required to expand the 100 foot buffer to include contiguous highly erodible soils, steep slopes, and hydric soils whose development or disturbance may impact streams, wetlands, and other aquatic environments.

The following chart summarizes the soil limitation factors for soils in Talbot County.

Soil Type	Severe Septic Limits	High Water Table	Hydrologic Soil Group	"K" Factor	Hydric Soil
BaA - Barclay	x	x	C	0.28	
BaB2 - Barclay	x	x		0.28	
Bp - Barrow Pit	NA	NA	NA	NA	
Cb - Coastal Beach	x	x			
DoA - Downer			B	0.17	
DoB2 - Downer			B	0.17	
DoC2 - Downer			B	0.17	
Ek - Elkton	x	x	D	0.43	x
Es - Elkton	x	x	D	0.43	x
Fa - Fallsington	x	x	D	NA	x
Ff - Fallsington	x	x	D	NA	x
Fg - Fallsington	x	x	D	NA	x
GaB - Galestown			A	0.17	
GaC - Galestown			A	0.17	
KmA - Keyport	x	x	C	0.43	
KmB2 - Keyport	x	x	C	0.43	
KmC2 - Keyport	x	x	C	0.43	
KmD - Keyport	x	x	C	0.43	
KpA - Keyport	x	x	C	0.43	
KpB2 - Keyport	x	x	C	0.43	
KsC3 - Keyport	x	x	C	0.43	
KsD3 - Keyport	x	x	C	0.43	
Ky - Klej		x	B	.28	
Ma - Made Land	NA	NA	NA	NA	
MkA - Matapeake			B	0.32	
MkB2 - Matapeake			B	0.32	
MkC2 - Matapeake			B	0.32	
MkD - Matapeake			B	0.32	
MlA - Matapeake			B	0.32	
MlB2 - Matapeake			B	0.32	
MlC2 - Matapeake			B	0.32	
MlC3 - Matapeake			B	0.32	
MlD3 - Matapeake			B	0.32	
MpA - Mattapex	x	x	C	0.37	
MpB2 - Mattapexe	x	x	C	0.37	
MxA - Mattapex	x	x	C	0.37	
MxB2 - Mattapex	x	x	C	0.37	
My - Mixed Alluvial	x	x	NA	NA	
On - Othello	x	x	D	0.43	x
Ot - Othello	x	x	D	0.43	x
Pe - Plummer	x	x	D	NA	x
Pk - Pocomoke	x	x	D	0.28	x
Pm - Pocomoke	x	x	D	0.28	x
Pt - Portsmouth	x	x	D	0.43	x
SaA - Sassafras			B	0.32	
SaB2 - Sassafras			B	0.32	
SaC2 - Sassafras			B	0.32	
SaC3 - Sassafras			B	0.32	
SaD - Sassafras			B	0.32	
SaD3 - Sassafras			B	0.32	
SfA - Sassafras			B	0.32	
SfB2 - Sassafras			B	0.32	
SmA - Sassafras			B	0.32	
SmB2 - Sassafras			B	0.32	
SmC2 - Sassafras			B	0.32	
SmC3 - Sassafras			B	0.32	
St - Steep Land	x	NA	NA	NA	
Tm - Tidal Marsh	x		NA	NA	
WaA - Woodstown		x	C	0.28	
WaB2 - Woodstown		x	C	0.28	
WfA - Woodstown		x	C	0.28	
WoA - Woodstown		x	C	0.28	
WoB2 - Woodstown		x	C	0.28	

Areas with Significant Development Constraints

Type: Wet Soils

Source of Information: Talbot County Soil Survey

Scale: 1" = 1,250'

Type: Paper

Date: 1970

Availability: Copies are available from the Soil Conservation Service

Accuracy and Sufficiency: Variable but generally acceptable

Extent and Approximate Location of Habitat:

Existing Regulations, Ordinances, and Program Affecting Habitat:

Maryland Department of Health and Mental Hygiene regulations for onsite septic system and sewer treatment facilities

Comments:

The Soil Survey will also note soils with high water table and soils subject to severe septic limitations. Factors which limit the utility of certain soils for onsite septic disposal can include a high or seasonally high water table there being some overlap between these two features of soils with development constraints.

Areas with Significant Development Constraints

Type: Highly Erodible Soils

Source of Information: Talbot County Soil Survey

Scale: 1" = 1,250'

Type: Paper

Date: 1970

Availability: Soil Conservation Service

Accuracy and Sufficiency:
Variable but adequate for plan mapping purposes.

Extent and Approximate Location of Areas:

Existing Regulations, Ordinances, and Program Affecting Habitat:

None

Comments:

Basic soils information for identifying soils with development constraints will be the Talbot County Soil Survey. From the Soil Survey the soil series type and the location of the soils on a site can be derived. More recent versions of the Soil Survey also provide information on the erodibility of soils, i.e., the "K" factor used in the Universal Soil Loss Equation. Unfortunately Talbot County's Soil Survey is dated and does not provide this information which the County will need to determine areas with soils erodibility factors ("K" factor) of .35 or greater. The "Guidance Handbook: to Help Local Governments Make Site Specific Findings Affecting the Initial Chesapeake Bay Critical Area," prepared by the Maryland Department of State Planning, provides the information that the County will need to relate soil type from the Soil Survey to erodibility (K factor). This document also contains information on hydrologic soil groups that the County and applicant for development activity will need to determine the location of hydric soils.

Areas with Significant Development Constraints

Type: Severe Septic Limitations

Source of Information: Talbot County Soil Survey

Scale: 1" = 1,250'

Type: Paper

Date: 1970

Availability: Soil Conservation Service

Accuracy and Sufficiency:

Variable but adequate for plan mapping purposes

Extent and Approximate Location of Areas:

Existing Regulations, Ordinances, and Program Affecting Development :

Maryland Department of Health and Mental Hygiene regulates the location of onsite and community sewerage treatment and disposal siting. These regulations address soils with severe septic limitations.

Comments:

The Soil Survey will also note soils with high water table and soils subject to severe septic limitations. Factors which limit the utility of certain soils for onsite septic disposal can include a high or seasonally high water table there being some overlap between these two features of soils with development constraints.

Flood Plains

Section III. 100 Year Flood Plain

Overview

Although the Criteria do not establish any new requirements as relates to the 100 year flood plain, these are areas where development is constrained by flood hazard. The flood hazard can be overcome by the requirement for flood-proof construction methods.

Equally important, is the fact that nearly 80 percent of non-tidal wetlands occur within the 100 year flood plain, consequently the County will want to use the flood plain maps to as part of a "flag" system used to determine the likelihood of non-tidal wetlands being located on the site. Where non-tidal wetlands occur in the 100 year flood plain, flood-proof construction methods alone are not enough to adequately manage the habitat resource aspect of the area.

Management Considerations

The Talbot County Flood Plain Management Ordinance includes management measures for the 100 year flood plain which already meet some of the objectives of the Critical Areas Criteria. Specifically, Section 20.5.F "Development Regulations" of the Ordinance states, "in the wetland floodplain (WF6) the following regulations shall apply:

1. The Talbot County Department of Public Works shall obtain, review, and reasonably utilize any wetland classification data provided by Federal, State, or other sources in the enactment of this subtitle within the Wetland Floodplain.

2. When the Wetland Boundary is unknown, obscure, or undefined the Talbot County Department of Public Works, acting in cooperation with the Maryland Department of Natural Resources shall evaluate each site and attempt to define the boundary.

3. Except where specifically allowed by the Talbot County Council and the Department of Natural Resources the following shall be prohibited:

   (a) filling, dumping, or excavation of any kind;

(b) drainage or alteration to the natural drainage and circulation of surface and ground waters.

4. All buildings and structures shall be prohibited with the exception of catwalks, piers, boathouses, boat shelters, fences, duck blinds, wildlife management shelters, footbridges, observation decks and shelters, and other similar water-related structures, including structures which are constructed on pilings to permit the unobstructed flow of waters and preserve the natural contour of the wetland area.

5. To the maximum extent possible, activities in the Wetland Floodplain will be limited to those which:

   (a) require access to water or wetlands, or are water dependent;

   (b) have no prudent or feasible alternative site which does not involve wetland areas; and

   (c) will result in minimum feasible alteration or impairment of natural contour, natural vegetation, fish and wildlife resources, or aqautic circulation of the wetland area.

The Wetland Floodplain (WF6) is designated on the State of Maryland Wetland Boundaries Map, Talbot County, Maryland, Maps 1 through 174 as prepared by the Department of Natural Resources. The Talbot Ordinance defines these wetlands as, "those portions of land within the Floodplain subject to inundation by the one hundred year flood plain and determined as "wetlands" as defined in this subtitle."

Considering the prohibitions against development as cited above, the County will not likely have to develop additional floodplain management measures. The County will want to ensure that the efforts of the Public Works Department are coordinated with the Local Program requirements, e.g., if County planning staff receive training in non-tidal wetlands identification and management through the Department of Natural Resources training program (See Non-Tidal Wetlands Section in Project I) they may be of assistance to the Talbot County Department of Public Works in enforcing the Flood Plain Managment Ordinance requirements as they relate to wetland floodplains.

Areas with Significant Development Constraints

Type: 100 Year Floodplain

Source of Information: HUD Flood Insurance Maps and Floodway and Flood Boundary Maps

Scale: 1" = 1,000'

Type: Paper

Date: May 1985

Availability: Talbot County Planning Department and FEMA

Accuracy and Sufficiency:

Floodplain boundaries were drawn by interpolating elevations based on the U.S.G.S. Maps with the 20' contours. Boundaries may be inaccurate and may need to be verified by elevation shots taken on the specific site.

Extent and Approximate Location of Habitat:

Existing Regulations, Ordinances, and Program Affecting Habitat:

Talbot County Floodplain Management Ordinance

Comments:

As previously mentioned the Flood Maps will be useful to the County as a means of determining the likelihood of non-tidal wetlands on a given site. As part of a project screening process the County will want to check these maps when determining the site inventory and mapping requirements an applicant for development activity will need to accomplish.

The Talbot County Flood Plain Management Ordinance contains the current limitations that the County imposes on development in the 100 year flood plain.

Shore Erosion

Section IV. Areas Subject to High Wave Action and Erosion

Overview

The Critical Areas Criteria provide for the stabilization of eroding shorelines within the buffer area. Stabilization is one important management measure needed to reduce sedimentation of the Bay system. However, the cost of structural erosion control measures is very expensive and may not be economically feasible under a one per twenty acre density. Structural erosion measures are in some cases the only practical nd effective way to control shore erosion. The Criteria suggest that structural erosion measures should be located only in those cases where necessary, due to the potential impacts on aquatic habitats.

Consequently the Criteria require identification and mapping of three gradients of shore erosion severity, including areas where no controls are needed, areas where non-structural erosion control measures can be used, and areas of severe erosion where structural erosion control measures are the only feasible alternative.

The Criteria suggest that the County adopt policies that correspond to each of the shore erosion area categories discussed above. Where no appreciable erosion is occurring, no measures are needed. Where erosion is occurring at a rates of less than two (2) feet per year, non-structural measures are the preferred method when practical. In areas with erosion rates of two (2) feet or more per year, non-structural erosion measures should be considered, and if not practical, structural measures installed in a manner that conserves fish and plant habitat can be used.

Management Considerations

Providing real incentive for property owners to address areas of rapid shore erosion may require that the County modify provisions to allow more than a one per twenty acre density in identified areas. Control of the installation of shore erosion controls will likely have to be built into the County's Zoning Ordinance, Subdivision Regulations, and Sediment and Erosion Control Ordinance. The County may want to coordinate the process for review of shore erosion control by requiring building permits, something that it does not currently do.

Areas with Significant Development Constraints

Type: Areas with Eroding Shoreline

Source of Information: Maps of Historic Shorelines and Erosion Rates on the Upper Eastern Shore

Scale: 1" = 2,000' on U.S.G.S. Quad Map Base

Type: Paper

Date: 1975

Availability: Talbot County Planning Department and DNR

Accuracy and Sufficiency:

Period covered by Erosion Atlas is over 10 years old. Sufficient for Plan level analysis.

Extent and Approximate Location of Areas:

Existing Regulations, Ordinances, and Program Affecting Habitat:

Zoning Ordinance setback requirements

Comments:

Talbot County Shore Erosion Maps, prepared be Ed Garbisch of the firm, Environmental Concern, will be helpful to the County in the identification of erosion areas suitable for non-structural erosion measures and provide relative cost estimating information.

CHAPTER III.

Chapter III. Discussion of Key Issue Areas for Consideration in the Development of a Work Program for Preparation of the Local Critical Areas Resource Protection Program

Introduction

This Chapter identifies key issue areas in which Talbot will need to concentrate it's work efforts in developing the County's Critical Areas Program. This section documents the nature and extent of the problems that need to be addressed for each area requiring focus or currently having information gaps and outlines the key factors involved in addressing them and the management approach at the County level that is recommended as best suited for addressing these factors. Cost estimates for completing each element based on recommendations concerning the best approach to completing tasks are also provided.

These major issue areas of focus are highlighted against a backdrop Work Program which is designed to assist the County in understanding where these programatic gaps will become important and when in the process of developing a local program they will need to be addressed. While the Work Program serves as a useful tool to reveal these programatic gaps and issue areas requiring greater focus, it cannot be considered a complete work program insofar as a number of adjustments can be expected as a result of actions anticipated in the future. Specifically, 1) State agencies will shift their program or restructure their programs to produce either products or technical assistance that will hopefully have utility or value to local governments. 2) The Critical Areas Commission and staff have not yet completed a handbook currently underway which is intended to provide greater definition of expectations of the Commission in County local program development. Upon completion it may stimulate or result in revisions to this Work Program. While the proposed work program is subject to modification, it provides a clear picture of the relationship of information gaps within the overall County Work Program context.

Given this context, the following strategic considerations and Work Program is suggested for local government implementation of the requirements of the law and criteria.

Considerations for Preparing the County's Local Program

The mapping component of the local program assumes that some of the information required to develop a local program will not be readily available or useful in it's current form. Mapping options include using the 1" = 200" photo maps produced from the 1985 State sponsored overflight to update the Wetland Boundary maps as the base and creating overlays of habitat areas. Perhaps a better option is to use the 1" = 600" tax maps as the base map and create overlays with blow downs or blow ups of habitat areas as appropriate. The 1" = 600' scale matches the County Zoning maps. Preparing all mapped information as overlays to the Zoning Maps would facilitate the first level of site screening for both the applicant and the County. This is an important consideration in light of the fact that many of the actual applicants for development activities will be individual property owners who will need a great deal of assistance in order to develop an acceptable site design.

It should be noted that the location of Limited Development Areas, Intensely Developed Areas and Resource Conservation Areas, and forested areas, including riparian and large forested and interior forests, buffer areas, especially where boundaries need to be expanded, need to be mapped. In addition, regardless of the scale choice, the County will have to prepare indicator maps noting approximate locations of significant habitat areas will have to be included in the Local Program submission.

Therefore the mapping component of this work program assumes the County will prepare all maps identified herein in response to criteria requirements at a consistent scale of 1" = 600'. Even this approach will not eliminate the need for, in some cases, additional mapping at the time of review and approval of projects in the form of rezoning, land subdivision or site plan approval for areas within the Chesapeake Bay Critical Area on a site by site basis.

The mapping component of the Work Program assumes that in addition to mapping that field investigation, or a check of certain mapped information (existing or mapped by the County) will need to be conducted. This is particularly true with respect to certain habitat areas of concern if it is the decision of the County to map them at a detailed scale.

In the development of management measures the work program assumes that prior to developing the actual plans required within

a local program that the County will want to establish the a list of likely mitigation and management measures to assure development is managed in areas with development constraints, and managed in a manner which is sensitive to habitat areas of concern. The implication here is that once management measures are clearly understood by the County, they can begin to determine which measures can be integrated into existing ordinances, and which measures may require additional County planning or implementation approaches above and beyond those that can be accomodated within the current County Plan zoning, subdivision, and site plan review and approval process.

The Local Program preparation component of the work program essentially incorporates the standards and criteria that achieve the management measures in the previous stages of the Work Program, and permits the revision of the existing plans and ordinances as required by both the law and the criteria, as well as the development of new plans and ordinances to fill the management measures gaps identified.

During the preparation of ordinances and regulation serious consideration should be given to the means by which all program elements will be effectively coordinated and implemented (see 14.15.10.01h). This concern is prompted by the implementation requirements brought on by revisions to plans and additional management measures. Focuses should be placed on who does what in terms of the administration and enforcement of ordinances necessary to support the intent and purpose of the local program in a manner which is consistent with the Critical Areas Law and Criteria recognizing the relationship of the County Planning Office as the key or lead implementation agent of the County. County planning authorities will have to delegate a number of responsibilities for achieving certain components of the local program in a manner consistent with the Criteria. By way of example, considerable technical assistance is supposed to be provided by state agencies. This technical assistance will be provided during site plan review and evaluation in the development review process for certain types of habitat areas. Therefore, ongoing coordination means will need to be provided to assure that Maryland Wildlife Administration, Maryland Department of Forests, Parks and Wildlife will be responsive to County review requests in a timely fashion. Furthermore, within the County, other County agencies will need to coordinate with the County Planning Office if there is to be a single point of contact for status of local program implementation at any given point in time. Soil Conservation Service, which will be developing conservation plans for farms will need to keep the County Planning Director apprised of progress periodically.

Likewise, forest management plans which are required by the criteria to be prepared cooperation with the Maryland Forests, Parks, and Wildlife Services will require coordination.

The County may want to consider development of a computer information system to: 1) coordinate permit reviews, track development in the RCA's in the Critical Area generally, record development requirements on specific sites - forest compensation, etc; 2) take advantage of the Natural Heritage Program's computerized habitat data base, and; 3) possibly develop a computerized mapping system such as is being proposed in Southern Maryland.

In amending ordinances and regulations the County will need to identify those measures it may want to apply Countywide, e.g., non-tidal wetlands, possible problematic development constraint areas, tree cutting and forest protection, etc. It is also possible that the County will want to coordinate its agriculture zoning efforts Countywide with its requirements on development in the Resource Conservation Areas.

The following section breaks out tasks for each phase in the work program. Following is a budget summary that provides costs estimates by work program phase and identifies staff disciplines required by Phase for each major section of the Work Program. The cost estimates and staffing are made based on the assumption that the County will make extensive use of consultant services to complete the the local program in addition to County staff participation in the program preparation.

The budget estimate does not include costs for conducting citizen participation efforts, a key consideration for local and State acceptance of the Local Program. The level of effort needed for public involvement in such a complicated and far reaching program as the Critical Areas Criteria imply will need to be implemented may be considerable depending on local circumstances in order to insure local and Critical Area Commission acceptance of the end products. Neither does the budget include cost estimates for revising the comprehensive plan and zoning ordinance outside of the critical area, other than as relates to the Local Program, overall project management, and support costs, e.g., printing, materials, etc.

LOCAL RESOURCE PROTECTION PROGRAM WORK PROGRAM

Phase I. Organization/Initiation

Task 1. Review and refine Work Program.

Task 2. Review adequacy of existing base maps, and other mapped information, and finalize number and scale of maps required for preparation of the Local Program.

Task 3. In consultation with Talbot County Planning staff, develop methodology for subsequent mapping of Intensely Developed, Limited Development, and Resource Conservation Areas as defined by the Maryland Critical Areas Law.

Task 4. Define project roles, scheduling protocol, coordination procedures, etc. with the Talbot County Council and Planning Commission, County planning staff, other County boards and departments, as required.

Task 5. Identify key community groups to be involved in the project.

Task 6. Interview key County staff, appointees and others as appropriate.

Task 7. Review Easton, St. Michaels, Oxford and Trappe Comprehensive Plans, interview Town officials and determine local program coordination issues.

Task 8. Prepare a refined statement of current planning and growth management issues and policy implications for the critical area.

Phase II. Background Studies and Baseline Data Analysis

A. Background

Task 1. Inventory and evaluate existing community facilities and services to determine current levels of service and capacities (existing and programmed) in the critical areas. Identify

major problems, issues, constraints, and opportunities.

Task 2. Collect and analyze relevant data on agriculture and maritime activities and identify trends, issues and opportunities.

Phase III. Analysis/Evaluation

A. Physical Analysis

Task 1. Inventory and compile all current information on the location and description of the following resources in the Critical Area in Talbot County and prepared map overlays at the indicated scale of the following:

Threatened and Endangered Species Habitat (1" = 600')

Forest Resources (1" = 600')

Agricultural Lands (1" = 600')

Tidal Wetlands (1" = 600')

Sand and Gravel Resources (1" = 600')

Non-Tidal Wetlands (1" = 600')

Tributary Streams (1" = 600')

Anadromous Fish Spawning Streams and watersheds (1" = 600')

Plant and Wildlife Habitats (1" = 600')

Steep Slopes (1" = 600')

Soils with Development Constraints (Hydric soils, high water table, highly erodible, septic limitations)(1" = 600')

Shore Erosion Areas (1" = 600')

Tidal Wetlands (1" = 600')

Submerged Aquatic Vegetation (1" = 600')

Task 2. Inventory and map the existing land use within the Critical Area.

Task 3. Map the 100 foot critical areas buffer setback as modified by soils with development constraints onto the 1" = 600 ' mylars previously prepared by Robert Rauch Associates.

Task 4. Identify and map additional land areas within Talbot County's Critical Area, and other areas of the County, as candidate areas for inclusion in the following elements of the County±s Local Critical Areas Resource Protection Program:

Water Dependent Facilities Plan

Areas Suitable for Surface Mining

Areas Suitable for Natural Parks

Public Shoreline Access

Task 5. Map existing Intensely Developed, Limited Development and Resource Conservation Areas within the Critical Area and compute five percent growth allocation.

Task 6. Identify land areas within the Critical Area suitable for designation as additional Intense and Limited Development areas.

B. Policy Analysis

Task 1. Identify, evaluate, and select the resource management and protection strategies to guide preparation of the Local Resources Protection Program.

Task 2. Prepare working draft growth management and resource protection policies/strategies statement and review both with the Planning Commission.

Task 3. In consultation with the County develop an allocation procedure for assigning additional growth to designated future Limited and

Intense Development Areas.

Phase IV. Prepare Local Critical Areas Resource Protection Program.

A. Resources Protection Strategy Alternatives

Task 1. Prepare alternative resource protection strategy options.

Task 2. Evaluate and select alternative or combination of alternatives which optimize policies, and performance standards, including Critical Areas growth allocation.

Task 3. Prepare preferred resource management approach.

B. Growth Management

Task 1. Identify highway and community facilities capacity improvements, costs, and staging required to implement the resource protection program.

Task 2. Identify and assess the adequacy of current growth management structures and techniques to implement the draft Local Resource Protection Program including:

-- Land use ordinances and regulations, including:

Zoning

Subdivision

Roads Ordinance and Standards

Sediment and Erosion Control

Stormwater Management

-- Fiscal and Environmental Impact Assessment Techniques or Requirements

-- Facilities plans, regulations, ordinances including:

Comprehensive Sewer and Water Plan

Sewer and Water Facilities Plans

Comprehensive Solid Waste Management Plan

County Parks and Recreation Plan

-- Capital Improvements Programs

-- Administrative and enforcement capacities and procedures

Task 3. Identify additional enforcement and management requirement and tools needed to implement the proposed Local Program and the responsible agency or agencies, assess the adequacy of enforcement staff and procedures to accomplish the intent of the Program, and identify coordination requirements.

Task 4. In consultation with the County legal staff, prepare the "Grandfathering" and Variance provisions of Local Program.

C. Local Critical Areas Resource Protection Program Preparation

Task 1. Prepare the draft Talbot County Critical Area Resource Protection Program including the mapped areas and management recommendations for inclusion in the:

Water Dependent Facilities Plan

Shore Erosion Protection Policies

Forest Preservation Plan

Agriculture Protection Plan

Areas Suitable for Surface Mining

Areas Suitable for Natural Parks

Habitat Protection Area Plan including:

colonial water bird nesting areas

waterfowl staging and concentration areas

Natural Heritage Areas, i.e. designated threatened, endangered species and species in need of conservation

riparian forests and large forest areas which support populations of interior forest dwelling birds, see attached list).

-Anadromous Fish Spawning Streams (designated streams and related watersheds which are known spawning areas of rockfish, yellow and white perch, shad, and river herring

Buffer Designations

Non-Tidal Wetlands

Task 2. Review draft Critical Areas Resources Protection Plan with Planning Commission and State, Citizens Advisory Committee, Board of Appeals and Talbot County Council, and refine as required.

Task 3. Prepare summary report of the draft Local Program, and other aids as required, to facilitate public understanding and support for the Comprehensive Plan.

Phase V. Prepare Growth Management Systems (Ordinances, Regulations, etc)

A. Zoning Ordinance Update

Task 1. Evaluate alternative and innovative zoning techniques such as performance zoning, impact zoning, floating and overlay zones, development guidance systems, special zoning treatments for as alternative or supplemental approaches to implementation of the critical areas resource protection objectives.

Task 2. Prepare draft changes to the Talbot County

Zoning Ordinance and maps that incorporate revisions. Prepare specific provisions relating to the following:

- home occupations
- cluster zoning
- performance standards
- performance standards for special exception use

Task 3. Prepare supplemental implementation provisions for regulation and management of development specific to the Critical Areas.

Task 4. Review proposed Zoning Ordinance changes for legal sufficiency, e.g., consistent with the requirements of Article 66B, the Critical Areas Law and Criteria.

Task 5. Review Zoning recommendations (proposed draft Ordinance and maps) with the Talbot County Planning Commission and staff, citizens advisory committee, Board of Appeals, and Talbot County Council and refine as required.

B. Update Subdivision Regulations

Task 1. Evaluate the Talbot County Subdivision regulations as recently reviewed and revised by the County Plan Advisory Committee to accomplish the design and resource management objectives of the resource protection program and identify subdivision revisions and changes to be undertaken.

Task 2. Draft proposed revisions to the Talbot County Subdivision Regulations that incorporate techniques for improving site planning, design, and management of development activities including environmental and design performance standards, landscaping provisions, site planning guidelines, road standards, development impact assessment techniques and site plan review procedures.

Task 3. Prepare recommended additional recommendations

specific to development activities in the Critical Area.

Task 4. Develop procedures to facilitate staff reviews and coordination, including site resource management and protection measures, developer guidance tools, e.g., checklists and development handbooks, and staff review techniques, procedures, guides, and coordination mechanisms.

Task 5. Review draft Subdivision Regulations for legal sufficiency, e.g., consistency with Article 66B, the Critical Areas Law and Criteria, and the draft Comprehensive Plan.

Task 6. Review draft Subdivision Regulations revisions with Planning Commission, staff, and Talbot County Council and refine as required.

Phase VI. Conduct County Public Hearings and Adoption

Task 1. Prepare summary report/pamphlet summarizing Zoning Ordinance and Subdivision Regulations recommendations and other aids as required to facilitate understanding of the resource protection implementation program. This pamphlet in concert with the Local Program summary Report/pamphlet will serve as information to workshop and public hearing attendees and for advanced mailings.

Task 2. Present and explain the draft Local Critical Areas Resource Protection Program, Zoning Ordinance and Subdivision recommendations at Planning Commission Public Meetings/Workshops.

Task 3. Evaluate refine draft based on citizen comments and tools.

Task 4. Conduct Planning Commission public hearings.

Task 5. Evaluate comments obtained at public hearings. Refine draft as required.

Task 6. Conduct County Council's public hearing(s).

Task 7. Evaluate comments obtained at County Council public hearing and finalize draft Local Critical Areas Resource Conservation Program and growth management strategies.

Phase VII. Local Program Submission

Task 1. Prepare the draft Local Critical Areas Resource Protection Program submission, including 1" = 1 mile overall program map, for the Critical Areas Commission, including management and enforcement measures and procedures.

Task 2. Present Local Critical Areas Resource Conservation Program to the Critical Area Commission.

Cost Estimates : Talbot County Local Resource Protection
Work Program Phase I - V

Discipline	$Hrs/Phase: I	II	III	IV	V	Subtotal	Rates	TOTAL
Wildlife Biologist			40		10	50	60.00	3000.00
Plant Ecologist			30	5	10	45	60.00	2700.00
Biochemist			50			50	65.00	3250.00
Environmetal Science	10	20	536	60	15	641	32.00	20512.00
Cartographer	5	10	1800			1815	30.00	54450.00
Agronomy		40	80			120	40.00	4800.00
Geologist/ Hydrologist			40		10	50	60.00	3000.00
Aquatic Biologist		15	40	10	10	75	60.00	4500.00
Planner	50	60	120	130	190	550	60.00	33000.00
Legal				10	60	70	85.00	5950.00
TOTAL HOURS	65	145	2736	215	305	3466		
TOTAL COST	3470.00	7040.00	93802.00	11470.00	19380.00	$135,162.00		$135,162.00

Key Issue Areas

The Chesapeake Bay Critical Areas Management Program is a complex programatic undertaking for local governments which, unlike similar State initiatives undertaken in the past, will have require the participation and coordination of numerous State and local County agencies. The regulatory, programming, staffing and budgeting implications of the Critical Areas Law and Criteria will not be confined to the County Planning office alone.

A number of key management issues with which the County will have to grapple became apparent as a result of the work done in Projects I and II. The following provides a description of key issue areas or topics that were identified along with a discussion of management approaches the County will want to consider to address these issues. Also included for each issue area is estimates of the staffing and cost implications associated with each management issue.

Grandfather Provisions Development and IDA, LDA and RCA Mapping

As pointed out previously in this report, the entire scope of the Work Program for Talbot County is complex at best. In addition, community knowledge of the implications of the Critical Areas Program will be a continuing concern throughout various stages of local program development.

It is our opinion that if mapping of Resource Conservation Areas, Limited Development Areas and Intensely Developed Areas as well as preparation of Grandfather provisions as two components of the program are not executed or performed early on, community concerns will be heightened during the period of local program development due to current considerations in place. For example, current property owners of previously subdivided lots in the Critical Area will be unsettled at best if required to wait a period of 1 1/2 - 2 years to ascertain what they will or will not be permitted to do with these zoned lands. Many of these people are not developers, but are simply individual property owners who have at some point in the past purchased a lot and who may quickly become dissatisfied with a failure to gain a clear indication of what may be permitted on their property. At the same time, the County must be ever mindful, not subsequent to local program development, but during the process of developing a local program, of that percent of land which may convert in use from Resource Conservation Area to other areas. Tracking land

use in order to make a judicious use of this scarce land resource which will be permitted development at greater densities, will be extremely awkward absent maps which clearly define these area categories.

The current effort through establishing the moratorium and clause within the moratorium provision which permits burden of proof on the applicant demonstrates that the area would have been mapped limited developed or intensely developed is unclear and awkward for application both by the County Planning Commission, as well as the area development community.

Given these considerations, we recommend that the County early on prepare its Grandfather Provisions relative to existing lots and existing uses in the Critical Area and their status, and prepare maps which clearly identify reaches of shoreline that fall within the 3 development categories as required. We further recommend that the County encourage the Chesapeake Bay Critical Areas Commission to grant approval, albeit tentative approval of these two components of the local program promptly, so that the initial questions concerning what can be done on existing lots of record and issues or questions concerning the land uses permitted within the shoreline reaches can be addressed by County Planning staff early on in a manner that is responsive to the Talbot public.

In addition to then establishing an atmosphere within the community in which the Critical Area program can be developed with potential community support, the complexities associated with developing all components of a local program will be somewhat simplified by virtue of having these two components of the program already completed. If the County accepts this recommendation, it will need to pull from the proposed work program drafted in this report those two components and move them as a separate Work Program element prior to initiating major work on the Work Program as outlined.

Coordination with other County Departments

The final step of the Work Program notes the importance of developing an implementation and coordination mechanism that assures adequate implementation among County departments or agencies outlined therein. This coordination need is essentially envisioned on two levels. One level of coordination is basically prompted by the development process and encourages clear memorandums of understanding concerning interdepartmental functions which will need to be coordinated so that the

development community is aware of those standards, requirements, and submission information necessary to support any request for development in virtually any form in the Chesapeake Bay Critical Area.

Coordination essentially already in place but which will need to be even better defined occurs most often between the County departments of Planning and Public Works, both are intimately involved in the review, approval process both in a substantive way as well as in a permit tracking manner.

Other County departments, including the Health Department and Department of Recreation will have roles as well. Clarifying the relationships between these agencies and very possibly development of a handbook that permits the perspective applicant familiarity with the process and application/submission requirements, may simplify the administrative burdens to the extent that they can be routinized. We believe that the degree of coordination required in the context of this program will be somewhat greater than any past program which the County may have undertaken, and for that reason believe that it will be an issue requiring substantial attention and focus by the County.

Likewise, at another level, coordination with somewhat less involved County or State and Federal departments and agencies, e.g. Soil Conservation Service, Department of Maryland Forests, Parks and Wildlife, are also prompted by the Criteria. Some of these agencies have heretofore never sustained any coordinated role in the development process with the County. As a result, workshops to define their roles and which result in memorandums of understanding will probably be extremely important to assure a workable scheme for program implementation can be demonstrated to the Critical Areas Commission.

In defining coordination roles, it is important that the county look first at existing program provisions. By way of example, the current status of administration and enforcement of sediment control at the County level is somewhat confusing. Although the State of Maryland has resumed or assumed responsibility and authority for it's enforcement of sediment control requirements in Maryland, much of the administrative aspect, e.g. issuance/review of permits falls within the County department function, specifically the Public Works Department and Soil Conservation Service, accept applications and issue permits and review same granting approval of sediment control plans. The State does not appear at present to be involved in the review of

the plans at such time as they are developed, and the Public Works Department, while deferring to the Soil Conservation Service for substantive review of plans, maintains little contact if any, with the State agencies relative to the degree with which plans are being properly implemented in the field. At present, no clear or well defined roles relative to the entire sediment control permit approval process seem to be in place. This particular consideration should be rectified in the process of developing the Critical Areas program.

Long Term Implementation Costs to Talbot County

As a component of this assignment and project, the consultants have prepared costs estimates for many of the components associated with the development of a local program. A more important consideration or issue of real concern to Talbot County is the cost associated with long term implementation over the many years subsequent to program development. While clear definition of these costs cannot be provided until such time as the County has completed many of the work program elements outlined herein and defined role of respective County agencies for administration enforcement, and ordinance preparation components, it is clear that the implications of those decisions will result, regardless of what decisions are reached, in substantial costs estimated to range over $50,000 per year simply to keep abreast of the implications of developments decisions made day-to-day, and to assure that those developments that occur comply with what will be a substantial number of standards and criteria during their construction.

Section 8-1808 of the Chesapeake Bay Critical Areas Law clearly indicates that the Governor of the State of Maryland shall include in the budget a sum of money to be used for grants to reimburse local governments for the reasonable costs of developing a program. Whether or not such grant assistance can be provided Talbot County in implementation phases of program is not clear in the law. Given this need for implementation and no clear understanding that the State will provide funding assistance to the County for it's execution, Talbot will need to prepare itself for these additional ongoing costs as only one component of County Bay clean-up efforts. While cost implications associated with program implementation are an obvious concern of any County, or affected jurisdiction within the Chesapeake Bay Critical Area, it is our opinion that these costs and the concerns related thereto become even more significant given the current tax limitations imposed County government and an inability to substantially increase its

capacity to provide implementation services associated with this program absent changes to the current tax limitations so imposed.

Acquisition of Base Data

Completion of the County's Local Program is dependent on the timely acquisition of a substantial amount of base data and technical assistance that it has been indicated will be made available from State agencies. Without this information and assistance the County will have to develop the base data, including maps, inventories, and other informational requirements of the Critical Areas Criteria on there own.

The County does not have adequate expertise, staff or funds to accomplish these tasks. Although the County could attempt to fill these information gaps by hiring the requisite experts, whether they be consultants or additional staff, it would be an unproductive approach, in that the County would be duplicating a great deal of work that has been or is being done by State agencies.

A more reasonable approach is for the County to delay preparation of those sections of the Local Program that require information that is promised but not yet available from State agencies until the information is available. To facilitate scheduling of staff time for preparation of the Local Program the County should determine from the State specifically what information and technical assistance will be made available and when. If possible specific dates should be requested and factored into the County's work schedule. For example, if the Maryland Forest, Park and Wildlife Service is going to provide technical assistance to County staff in the mapping or identification of large forest areas, riparian forests, developed woodlands and forests, then the County should request that this State agency provide a detailed description of the information and services that will be provided and when they will be available. With this information the County can identify any remaining information gaps and schedule staff time on the Forest Preservation Plan and the appropriate portions of the Habitat Protection Plan to coincide with the State. The County request should specify that the purpose of requesting detailed information from the State agency is for scheduling joint work sessions and not just for general scheduling purposes. Essentially the County will be preparing a critical path analysis for preparation of the Local Program.

Implementation and Enforcement

A major issue is implementation and enforcement of Local Program requirements once implemented. The County Planning Department, which will apparently have the primary implementation and enforcement responsibility for the Local Program requirements, will have to design an enforcement program that will include a whole host of new regulations and program requirements. In addition the County planning staff will have to review site plan submissions to verify informational requirements and compliance with the site design standards established for the critical area. In addition to the actual number of staff required to review site plan submissions, which will be considerably more detailed than previously required, for compliance with the Local Program, and to meet the increased enforcement work load, there is also an implied expertise requirement. In those expertise areas where existing staff are not trained, or are not available from some other County agency, the County will have to train existing staff or hire additional staff. All options imply additional and ongoing cost to the County.

The County will want to identify existing staff that will be involved in the enforcement and implementation of the Local Program including, number of available staff in the Planning Department and other County agencies, expertise, and funding. Next the County will want to determine staffing, expertise and funding gaps. It is assumed that the County will want to meet the enforcement and implementation requirements of the Local Program with existing staff to the extent possible. In all likelihood this will be impossible if the County is at all interested in minimizing review time associated with the County development review process.

Funding for additional staff, if required, is an issue that will have to be addressed by the County Council within the context of the overall County budget. One source of funds that may be considered is the application fees for zoning permits. This way, much of the cost of additional staff can be passed along to the developer. If the County opts to take this approach, the appropriate County departments and agencies should be requested to establish fee schedules adequate to meet their costs. The actual time required may have to be determined after the program is implemented and the County staff has gained some experience in program implementation. In any case, the County will want to note in its program submission that a revised or supplemental fee schedule will be considered to ensure adequate resources for program implementation and enforcement.

In addition, the County will want to consider penalties for non-compliance with the Local Program requirements. If fines will be collected as penalties for non-compliance, these fees can also be used to help underwrite local program costs.

Process

An overiding administrative concern that the County will have to address is design and framing of a development review process for development activity in the critical area. There are two aspects of this issue; 1) what will be the procedural requirements for applicants; and, 2) how will the County make the applicant and others aware of what the process involves and what are their responsibilities.

At a minimum the County will want to prepare tools which outline and facilitate meeting the requirements of the development process. These tools may include development guides, checklists, and/or handbooks. In addition the County may want to consider sponsoring training sessions or workshops that will help educate land owners and developers about various aspects of the program, including coping with the development process, design of onsite protection measures, and other topics.

State Technical Assistance in Implementation

The Local Program development and implementation will be dependent on cooperation of technical assistance of from a number of State agencies in order to work smoothly. The State's role in Local Program development has already been discussed earlier. Equally important is the ongoing role of these State agencies in program implementation and enforcement.

The County's development review process will have to be closely coordinated with supporting State agencies in order to avoid unnecessary delays and overlaps. The role in site reviews that State agencies have authored for themselves in the Criteria is potentially substantial. If they do not have adequate staffing to efficiently meet this role, the delay that will be built into processing applications for development activities in the Critical Area could be substantial, perhaps as much as year or more. As an example, the average turn around time for a Heritage Program response to a request to simply review their habitat data base during the interim period was in excess of one month and in many cases more. If under the Local Program, the Heritage Program must now inspect the site and determine appropriate

management measures, the average time for response could easily become three months or more.

Other aspects of this issue which the County must consider in the development of process is who will be responsible for contacting the State agency, who will be responsible for coordinating the dialogue between the State, County and applicant, what information must be submitted to the State, who should submit this information, and what is the status of the recommendations, e.g. required, advisory, etc.

If at all possible the County will want to determine exactly what the role of each State agency will be in the implementation of the Local Program. Ideally the County will also be able to determine specific coordination procedures, including estimates of time required to complete State reviews, information submission requirements, and the responsible staff. The Local Program may contain Memoranda of Understanding with these State agencies which will include provisions for an outside time limit for State response.

Defending the Local Program

Once the County has prepared its Local Program it must be submitted to the Maryland Critical Areas Commission for review and approval. The Commission, which includes a number of laymen, will be representing the State's perspective on Local Program. The County will not only have to present its program, but in all likelihood will have to be prepared to defend all or part of it before the Commission.

In order to effectively present and defend the Talbot County Local Program, the County will have to prepared to answer numerous technical as well as philosophical questions that will be presented by the Commission members and staff. This implies that the County will need experts in certain areas familiar with the law, criteria and Talbot County. At a minimum the presentation team will include the consultants who prepare the Local Program and appropriate County staff. In addition, the County may want to include a member or members of the County Council on the presentation team.

Public Hearings

The Critical Areas Criteria set out specific public hearing requirements for adoption of Local Programs. Presentations of such a complex program, whether it be at public hearing or as part of an educational program, will be difficult at best. It difficult enough for people working with the program on a daily basis to keep up with all of the requirements. Conveying this information to the public in a form that they can most easily understood will be challenging to say the least.

Tools which the County can use to present the Local Program should be developed as part of program preparation. These tools may include slide programs, brochures, executive summaries, illustrative examples, and others. Other educational tools prepared by the State may also be useful for public presentation purposes.

Mapping

Several counties have indicated that they will map the required Local Program information at a standard scale for program submission. Presently there is no single map scale for which all of the required information is available. A number of maps at a scale of one inch equals one mile (1"= 1 mile) exist including some land use, forest cover, threatened and endangered species habitat, some anadromous fish spawning areas. In addition agriculture lands, mineral resources and tributary streams could easily be mapped at this scale.

Having the mapped information on a consistent scale will allow the County to overlay maps and determine areas where more than one resource area/issue exists. The problem with this approach is that the nature of the mapped information required does not lend itself to one scale.

The two primary functions of these maps are to meet the Local Program submission requirements and to be used as a system of flags in the site review process. A "flag" system will be best accomplished by the County if mapped information is prepared at a single scale. In those cases where it is not feasible, too costly or not appropriate the County should simply submit the information on existing maps at whatever scale is available, e.g., the map submission to the Critical Areas Commission.

APPENDIX

APPENDIX
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