
Chapter 7 Natural Resource Conservation And Sensitive Areas Protection

I. Vision

The restoration and protection of our natural resources and sensitive areas is critical to preservation of the Quality of Life enjoyed by those who live in Talbot County. Significant components of our local economy depend upon clean and abundant groundwater, and healthy and sustainable wetlands, rivers and bays.

Therefore, Talbot County takes the necessary steps to reduce runoff and other introductions of pollutants into our waters. The means of enforcing these provisions are adequately funded, and we have measurable, objective criteria for monitoring the success of our efforts.

In addition to our wetlands, rivers and bays, our groundwater and aquifers are aggressively protected for the future. The County has objective and measurable standards to determine whether development, either residential or commercial, threatens to deteriorate our groundwater or reduce our aquifers to levels, which will deny us a sustainable long-term water supply.

Goal

Conserve and protect Talbot County's most valuable and attractive assets, its natural resources, which include Critical Areas. Establish and enforce mandatory programs and regulations, and provide tax, financial, and any other incentives to insure preservation of these resources, while allowing for moderate planned growth and development.

II. Introduction

Talbot County's most notable feature is its proximity to the Chesapeake Bay and its extensive, irregular shoreline formed by numerous rivers, creeks and coves. The County has approximately 600 miles of shoreline and is principally bordered by the Chesapeake Bay to the west, the Choptank River to the south and east, and the Tuckahoe River to the east. On its western edge, the County is defined by numerous peninsulas or necks.

Talbot's land and waterways are intertwined in a unique mosaic of tidal waters, streams, farmlands and forests. Historic settlement patterns dating back to pre-Colonial and Colonial time have created a scattered patchwork of farms, estates, villages and towns. The traditional lifestyle of Talbot County has long centered on farming, seafood and maritime industries. The County's history is reflected not only in architecture but also in historic landscapes.

The Comprehensive Plan is one of many tools that the County employs to protect and conserve fragile natural resources. Approximately 38 percent of the County's total land area is designated as Critical Area. The County's adopted Chesapeake Bay Critical Area Plan and regulations contain strict environmental protection for shoreline areas of the County. The County's floodplains regulations, a Chapter of the County Code, provide safeguards for properties located within the 100-year floodplains.

The conservation and protection of the sensitive natural resources in Talbot transcends arbitrary boundaries. Issues of significance countywide include loss of forest land, sedimentation, excessive nutrient loads, hydrocarbons, and other toxins from storm-water runoff as well as loss of agricultural land, and development of land along rivers and creeks within the Critical Area and non-critical area tributary streams.

Certain areas of Talbot County are much more susceptible to environmental degradation than others due to the presence or proximity of sensitive natural features. Future development should be directed away from sensitive areas and guided towards areas of the County where environmental impacts would be less severe. Regardless of location, all future development should be subject to minimum performance standards for environmental protection and natural resource conservation.

The costs of resource reclamation are far greater than that of resource conservation and protection. If environmentally damaging activities are left uncontrolled, the loss of natural resources must be accepted, or payment must be made collectively by taxpayers to address the problem. As an example, collective Federal, State, and local tax dollars are currently being spent to correct environmental damage to the Chesapeake Bay that has resulted from decades of neglect and abuse.

Current efforts to conserve and protect natural resources can yield long-term benefits for the environment. The quality of Talbot County's environment is one of the factors that make the County such a desirable place to live and work. The intent of County environmental protection measures is not to stop growth and development, but rather to insure the compatibility of development with the continued productivity and value of environmentally sensitive areas.

III. Chesapeake Bay Critical Areas

The Chesapeake Bay Critical Area Protection Program (Natural Resources Article 8-1801-8- 1806) was passed by the Maryland General Assembly in 1984 because of concern about the decline of certain natural resources of the Chesapeake Bay. As a result of this legislation, each Maryland county and municipality fronting on the Bay or its tributaries was required to adopt a local Critical Area Plan and corresponding development ordinances designed to implement the Plan.. The local plans are required to meet criteria, established by the Maryland Chesapeake Bay Critical Area Commission, that minimize impacts on the Bay's water quality and plant, fish and wildlife habitat. Talbot County adopted its local Critical Area Program which is contained in the County Zoning Ordinance on August 13, 1989. The Talbot County Chesapeake Bay Critical Area Plan is herein referenced as an important component of the County's Comprehensive Plan.

The Talbot County Critical Area includes all lands and waters defined in Section 8-1807 of the Natural Resources Article, Annotated Code of Maryland. The Critical Area includes all waterfront

areas of the County within 1,000 feet beyond the landward boundary of State or tidal wetlands and the heads of tides designated under Title 9 of the Natural Resources Article, Annotated Code of Maryland. Map 3-6 (Land Use Plan) identifies the general location of lands located in the Talbot County Critical Area.

The Talbot County Chesapeake Bay Critical Area encompasses 65,689 acres, or about 38 percent of the County's total land area. The Talbot County Critical Area Program contains goals and policies relating to:

- Development in the Critical Area;
- Water Quality Protection;
- Habitat Protection;
- Shoreline Buffer Protection;
- Agriculture in the Critical Area;
- Forests and Developed Woodlands Protection;
- Natural Parks;
- Surface Mining/Solid Waste/Sanitary Landfills; and
- Marinas and Water Dependent Facilities

The County Zoning Ordinance has been revised to include regulations, which implement the policies of the County Critical Area Program. For more information relating to development and natural resource protection within the Critical Area, the reader should reference the Talbot County Critical Area Program.

Critical Area Policies

- C07.P. 1. The County will continue to enforce regulations to implement the goals and policies adopted as part of the local Talbot County Chesapeake Bay Critical Area Program.
- C07.P. 2. Marina facilities should be required to comply with Maryland's Clean Marina initiative.

IV. Sensitive Area Protection

As noted in Chapter One, the Maryland Economic Growth, Resource Protection and Planning Act of 1992 added provisions to Article 66 B of the Annotated Code for the State of Maryland that require this Comprehensive Plan to contain a Sensitive Areas Element which describes how the County will protect the following sensitive areas:

- Streams and stream buffers;
- 100-year floodplains;
- Habitats of threatened and endangered species; and
- Steep slopes.

Sensitive Areas Policies

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- C07.P. 3. The County should maintain and review protection measures for sensitive areas including streams and their buffers, 100-year floodplains, steep slopes adjacent to streams, and habitats of threatened and endangered species to reinforce existing regulatory protection programs.
- C07.P. 4. The County should develop coordinated natural resource conservation and sensitive area protection policies in cooperation with the County's incorporated towns for areas adjacent to towns.
- C07.P. 5. New development shall be restricted in sensitive areas and environmental protection standards must insure that environmental resources are protected and enhanced.

V. Countywide Natural Resource Conservation

Talbot County's natural resources are its most valuable and attractive resource asset. The plan provides guidelines and policies to encourage the protection, conservation and rehabilitation of these resources. The County's policies are broad and apply beyond the mandated requirements for critical areas, and consider all county land to be a valued natural resource that should be protected and conserved.

The 62 % of the County that is not under the jurisdiction of the Chesapeake Bay Critical Area regulations should also be subject to environmental resource conservation and protection requirements. The County should insure that environmentally-sensitive resources such as forests/woodlands and habitat areas for rare, threatened and endangered species, which are located outside of the Critical Areas are protected as development occurs. The level of protection required for each resource should be appropriately scaled to the significance of the resource.

Natural Resource Conservation Policies

- C07.P. 6. The County should maintain countywide policies for conservation and protection of natural and cultural resources.
- C07.P. 7. The County should encourage property owners to place environmentally sensitive lands under conservation easements through national, regional, state, and local land trust organizations.
- C07.P. 8. Develop and enforce mandatory programs and regulations, as well as financial incentives to insure preservation of natural resources.
- C07.P. 9. The County should encourage cluster development to conserve open space and protect fragile environmental and natural resources.
- C07.P. 10. The County shall require evidence of Federal and State environmental permits as a condition of local development approval.

Natural Resource Conservation Implementation Strategies

Action: Implement a countywide Geographic Information System (GIS) to inventory and map natural resources, such as habitats, wetlands, stream corridors, tree stands, and vegetative cover for natural resource preservation management.

Action: Develop comprehensive baseline studies that provide measurable baseline data as a basis for monitoring for pollution and pollution sources. Such studies and data should be based on sound science. Baseline data for air and water quality should be regularly updated with the objective of insuring the same or, where applicable, improved environmental impact.

Action: Require all new large scale development projects to submit an environmental impact assessment prepared by a qualified environmental engineer or planner as part of the development application. The assessment must include all environmentally sensitive features on and adjacent to the site.

Action: Establish cooperative partnerships with state, federal and town government agencies to address major environmental problems as needed.

A. Surface Water Quality

Much of the water that flows through Talbot County is located within the Choptank River Watershed. The Choptank Watershed includes portions of Talbot, Caroline, Dorchester and Queen Anne's counties and Delaware. Water flows into the Choptank and Tred Avon Rivers, Harris, Broad and Tuckahoe Creeks, and numerous smaller streams.

Remaining lands in Talbot (approximately 30 percent of County land area) are located within the Upper Eastern Shore Watershed. This watershed includes parts of Cecil, Kent, Queen Anne's and Talbot counties. Water bodies and their tributaries in Talbot which are a part of the Upper Eastern Shore Watershed include the Miles River, Wye River, and Eastern Bay. Both watersheds contain streams that are spawning ground for anadromous species, for example herring, shad, white perch and yellow perch. The freshwater streams in each of these two watersheds support over 30 species of fish and some 40 or more species of fish can be found in the brackish, saltier, lower reaches of rivers within each watershed. Both watersheds show signs of moderate to severe stress from nutrient overenrichment.

In 1994, the State of Maryland, with the cooperation of the County governments, prepared "Tributary Strategies" for each of these two watersheds (Map 7-2). These strategies were prompted by the recognition that nutrient pollution loads to the Chesapeake Bay's tributaries must be reduced to achieve Bay restoration targets. Tributary Teams are currently working to prioritize and implement actions to reduce nutrient loads to Bay tributary rivers and streams in the County's two watersheds.

Surface Water Quality Policies

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- C07.P. 11. The County should increase efforts to monitor the condition of County surface waters including streams, rivers, and submerged aquatic plant resources.

Surface Water Quality Implementation Strategies

Monitoring Water Quality

Action: Enhance baseline-monitoring efforts to better establish and monitor the condition of County surface waters including streams, rivers and submerged aquatic vegetation.

Action: To enhance efforts to monitor water quality, the County should work with the Maryland Department of Natural Resources to encourage volunteers to participate as “Creek Watchers”.

B. Groundwater Quality

Groundwater supplied through wells and springs is the primary source of drinking water for most County residents. Groundwater quality in the County is generally good with some localized problems of high nitrate levels, high sodium and chlorine levels and lower groundwater levels. New standards for arsenic are proposed and should be used to evaluate and treat potable water supplies.

Factors such as poorly sited drainfields, high water tables, lack of septic tank maintenance, drainfield saturation, agricultural wastes, improper disposal of household hazardous waste and leaking or abandoned underground storage tanks threaten groundwater quality. To reduce the threat to the county’s groundwater quality, the County adopted a County Groundwater Protection Plan and Shared Facilities Ordinance which allows for expanded development of community owned and operated wastewater disposal systems and the creation of new types of systems serving more than one household.

Ground Water Quality Policies

- C07.P. 12. The County will continue to study groundwater resources and establish follow-up mechanisms to monitor changes to occur over time.
- C07.P. 13. The County will require failing septic systems to meet high standards of treatment.
- C07.P. 14. The County will encourage policies and programs that support reasonable water use.

Ground Water Quality Implementation Strategies

Action: Develop comprehensive baseline studies that characterize the current condition of aquifers that provide potable water supplies. This would include establishment of scientific test wells, to permit testing and monitoring for salt-water intrusion and other contaminants in County aquifers. Particular attention should be given to the Aquia aquifer.

Action: Adopt a septic plan that includes requirements that all new septic systems and repairs meet high standards of treatment. Require routine inspections and pump-out.

Action: Establish a system for inspection and monitoring septic systems. Phase in program by beginning in the Critical Areas.

Action: Establish a financial assistance program to aid low income homeowners to repair or replace failing systems.

Action: In Critical Areas, require installation of de-nitrification systems at the time of an arms-length-sale of real property.

C. Rivers, Streams and Stream Buffers

County streams and their buffers are important resources. Streams support recreational fishing and serve as spawning areas for commercial fish stock. Streams and their adjacent buffers are home to countless species of animals and plants and transport valuable nutrients, minerals and vitamins to County rivers and creeks and, in turn, the Chesapeake Bay. The floodplains, wetlands, and wooded slopes along streams are important parts of the stream ecosystem.

Stream buffers serve as protection zones and reduce sediment, nitrogen, phosphorus, and other runoff pollutants by acting as a filter, thus minimizing stream damage. The effectiveness of buffers to protect stream water quality is influenced by their width (which should take into account such factors as contiguous or nearby slopes, soil erodibility, and adjacent wetlands or floodplains), the type of vegetation within the buffer (some plants are more effective at nutrient uptake than others), and maintenance of the buffer. Buffers also provide habitat for wetland and upland plants which form the basis of healthy biological communities. A wide variety of animals use the natural vegetation as a corridor for food and cover. A natural buffer system provides connections between remaining patches of forest in the County to support wildlife movement.

Development activities near rivers and streams are required to provide a natural buffer. Through the County Critical Area Program, tributary stream buffers located within the Critical Area must be at least 100 feet wide, and may be expanded beyond that distance to include contiguous sensitive areas, such as steep slopes, hydric soils or highly erodible soils whose development or disturbance may impact streams, wetlands or other aquatic environments. In non-critical area, the County requires a 100 foot natural buffer for perennial streams and a 50 foot natural buffer for intermittent streams.

Rivers, Streams, and Stream Corridors Policies

C07.P. 15. The County should continue to enforce buffer requirements for all tributary and intermittent streams in the County.

C07.P. 16. The County recognizes the importance of stream corridors as water quality buffers, and wildlife habitat; and encourages protection of these buffers in their undisturbed state.

C07.P. 17. The County should adopt legislation authorizing serious fines and penalties for clearing trees and forests in shoreline buffers. Any trees cut should be replaced per County mitigation regulation.

C07.P. 18. Forests and vegetation should be preserved in stream corridors to preserve the integrity of these waterways.

Rivers, Streams and Stream Corridor Implementation Strategies

Buffer regulations

Action: Explore options to increase penalties for illegal clearing of trees, and require replacement consistent with mitigation requirements.

D. Wetlands

Wetland areas are a valuable natural resource. Their primary value is the wetland plants and bottom sediments are sinks or collectors of excess nutrients. They reduce floodwater peaks by storing floodwater and reducing floodwater velocity, serve as groundwater discharge and recharge areas, improve water quality and provide food and habitat for fish and wildlife. In addition, wetlands are recreational and aesthetic resources. Wetland activities are regulated by the U. S. Army Corps of Engineers and Maryland Department of the Environment through a joint permitting process. Tidal wetlands are protected by a 100 foot natural buffer and non-tidal wetlands are protected by a 25 foot natural buffer. No development activities are allowed within the wetlands or buffer areas. Exceptions are allowed for certain water-dependent activities.

Wetland Policies

C07.P. 19. In accordance with Federal and State Policy and goal of “no net loss” of wetlands, the County will coordinate with Federal and State agencies to preserve existing wetlands where possible and to mitigate their destruction when necessary.

E. Shoreline Protection

The County’s 600 miles of shoreline is an important environmental, recreational and scenic resource. Portions of Talbot County, because of its relationship to the Chesapeake Bay, are subject to severe soil erosion caused by wind and wave action. The Bay Hundred area, which is the western-most part of the County, is subject to the direct wave action of the Bay and some shoreline reaches sustain losses of up to 16 to 18 feet of land per year. The County should continue to work with the Maryland Department of Natural Resources to monitor and preserve this fragile resource.

Shoreline Protection Policies

C07.P. 20. The County should continue to monitor shoreline erosion conditions and recommend appropriate standards for stabilization and protection.

C07.P. 21. Adopt legislation improving the effectiveness of all shoreline buffers for all land uses when research and science indicate such actions can improve buffer functions.

F. Floodplains

Floodplains moderate and store floodwaters, absorb wave energies, and reduce erosion and sedimentation. Wetlands found within floodplains help maintain water quality, recharge groundwater supplies, protect fisheries, and provide habitat and natural corridors for wildlife.

Certain areas of Talbot are subject to periodic flooding which pose risks to public health and safety, and potential loss of property. Flood losses and flood-related losses are created by inappropriately located structures which are inadequately elevated or otherwise unprotected and vulnerable to floods or by development which increases flood damage to other lands or development. While protection of life and property provided the initial basis for protection of floodplains, there has been a growing recognition in recent years that limiting disturbances within floodplains can serve a variety of additional functions with important public purposes and benefits.

Within the County two types of flooding occur, riverine and coastal or tidal flooding. The areas of County subject to riverine flooding are outside of the Critical Areas. In these areas recommendations for buffers along non-critical area streams will provide substantial protection to co-located floodplain resources.

The County has adopted appropriate regulations¹ restricting development within the 100 year flood plain.

Floodplain Policies

- C07.P. 22. The County will continue to enforce its floodplain regulations.
- C07.P. 23. The County will recognize the interdependence of floodplains and preservation of open space, wetlands, wildlife habitat, and stream corridors.
- C07.P. 24. Development within the 100-year floodplain will be limited to minimize disturbance and protect life and property.
- C07.P. 25. When sites subject to development contain land located both within and outside of the floodplain, development should be located in the area outside of the floodplain where practical.

Floodplain Implementation Strategies

Action: The County should explore acquisition of new digital elevation models (DEM) to more accurately determine location of floodplains.

G. Soils

The Natural Resources Conservation Service has classified the County soils into six major soil associations that are described in considerable detail in the Soil Survey, Talbot County, Maryland,

¹ Floodplain Ordinance.

dated December 1970. Map 7-1 shows the location of the soil associations. General characteristics of these soil associations can be summarized as follows:

Sassafras-Woodstown Association - Level to moderately sloping, well drained and moderately well drained soils that have a subsoil of sandy loam or sandy clay loam. This association is found mostly in the Eastern parts of the County and comprises 28% of the County's area. Groundwater is normally below a depth of five feet and these soils are normally suitable to support community development.

Mattapex-Matapeake Association - Level to moderately sloping, moderately well drained, and well-drained soils with a subsoil of loam to silty clay loam. These soils are found throughout the County and comprise 23% of the land area. With some exceptions, these soils are generally suitable to support community development.

Keyport-Mattapex Association - Level to gently sloping, moderately well drained soils that have a subsoil of silty loam or silt loam. This association makes up about 11% of the County and occurs mainly in the western part of the County in areas along the shoreline. The water table is generally high, particularly in the winter months. These soils are generally not suited for use of septic tank drain fields.

Elkton-Othello-Barclay Association - Level to nearly level, poorly drained and somewhat poorly drained soils that have a subsoil of silty clay to silt loam. This association occupies roughly 30% of the County land area and is typically located in the western half of the County in areas just inland from the waterfront. These soils have a fluctuating high water table and ditches are needed for successful farming. These soils are generally not suited for use of septic tank drain fields.

Fallsington-Pocomoke Association - Level to depressional, poorly drained and very poorly drained soils that have a subsoil of sandy loam or sandy clay loam. This association makes up about 5% of the County and is scattered throughout the County. These soils have a fluctuating high water table and are severely limited for development.

Tidal Marsh Association - Tidal marshes make up about 3% of the County and are low lying, level areas subject to periodic tidal flooding.

Generally, the soils of the eastern half of the County tend to be the best soils, both for agricultural purposes and for development. Many of the areas in the western part of the County contain soils that are poorly drained and have a high water table. These soils have severe limitations for development. The use of septic tank systems for sewage disposal is difficult or impossible in many of these areas.

Portions of Talbot County, because of its relationship to the Chesapeake Bay, are subject to severe soil erosion caused by wind and wave action. The Bay Hundred area, which is the western-most part of the County, is subject to the direct wave action of the Bay and some shoreline reaches sustain losses of up to 16 to 18 feet of land per year.

Soil Policies

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- C07.P. 26. All new development and redevelopment shall result in minimized pollutant loadings and runoff from the site through the implementation of sediment, stormwater and erosion control plans with the objective of insuring the same or improved environmental impacts and where applicable, enhancing environmental features.

H. Prime Agricultural Soils

Prime agricultural soils are soils that are best suited for continuous agricultural use. These soils (as defined by the U. S. Department of Agriculture) account for approximately 51% of the County's soils. These soils are usually found in areas that are nearly level and well drained and watered. Talbot's best agricultural soils are generally located in the eastern half of the County, although notable pockets are located on the western peninsula between St. Michaels and Tilghman Island.

Prime farmland is the foundation of the County's agricultural industry, one of Talbot's largest and most valuable economic sectors. Like other natural resources, prime agricultural land is threatened by development. Prime agricultural lands are well suited for development because they are well drained, generally found on mildly sloping terrain and have good potential for drainfields.

Talbot's emphasis on agriculture as an important part of the County's economy and lifestyle makes prime farmland especially important. Once the resource is lost, it cannot be reclaimed.

The policies addressing this resource are intended to correlate with this Plan's agriculture policies.

Prime Agricultural Soils Policies

- C07.P. 27. The County will encourage the preservation of prime agricultural soil resources for agricultural, horticultural and forestry use.
- C07.P. 28. Agricultural and forestry activities should be conducted in accordance with approved Best Management Practices for Soil and Water Conservation and management of nutrients.

I. Steep Slopes

Slopes provide an environment that facilitates movement of soil and pollutants when land disturbances occur. Control of erosion potential is usually achieved through regulation of development on steep slopes because such areas represent the greatest opportunity for accelerated soil loss and resultant sedimentation and pollution to streams. This is particularly true in Talbot County where steep slopes generally occur in proximity to County streams and are generally rare in other locations.

Steep Slopes Policies

- C07.P. 29. The County should continue to enforce policies to protect steep slopes adjacent to streams and tidal waters.

Steep Slopes Implementation Strategies

Action: The County should revise the site plan requirements to require site topography and slope, and submission of a stream buffer protection plan when appropriate.

J. Forest and Vegetation

Approximately 25% of the County is in forest cover. Forest cover is the ideal land use for maintaining water quality because it generates low levels of pollutants and filters pollutants from both surface and subsurface flows. Trees serve as natural habitat for wildlife, and are important to the carbon and oxygen cycle. Forest areas also provide a cooling effect and visual buffer in both developed and undeveloped areas.

The Forest Conservation Act of 1991 was enacted to protect the forests of Maryland by making forest conditions and character an integral part of the site planning process. The Act is regulated by the Maryland Department of Natural Resources, but implemented and administered by local governments.

Regulations require that any person making an application for subdivision of a tract of land 40,000 sq. ft. or greater or disturbing more than 40,000 sq. ft. of forest in conjunction with a project plan, building permit or sediment and erosion control plan, must submit a Forest Stand Delineation and Forest Conservation Plan to the Planning Office for review and approval.

Forest and Vegetation Protection Policies

- C07.P. 30. Forest and woodland resources should be conserved and, wherever possible, replenished through tree conservation measures, replanting programs, and through compliance with the Maryland Forest Conservation Act. Creative alternatives should be developed to prevent tree planting on prime agricultural soils.
- C07.P. 31. The County should encourage property owners to preserve forested areas through the use of Agricultural Easements, and conservation easements, through national, regional, state and local land trust organizations.
- C07.P. 32. Local regulations should be developed which insure that the landscape be preserved in its natural state, insofar as practical, by minimizing tree and soil removal. The development of a site should maintain maximum natural topography and cover.
- C07.P. 33. Maintaining natural topography, drainage ways, and tree cover should be a priority when determining the location of roads, placement of structures and site improvements in development plans.

K. Habitats of Threatened and Endangered Species

Materials and chemicals produced by plants and animals are a largely unresearched storehouse for products beneficial to people. More than half of all medicines in use today can be traced to wild organisms. Plant chemicals are the sole or major ingredient in 25 percent of all prescriptions written in the United States each year. Likewise, agriculture depends on the development of new varieties

of crops, often created by cross-breeding strains with wild relatives of crop species, in efforts to develop pest, disease, or drought resistant crops. Maintenance of biological diversity today sustains future opportunities to advance health care and provide a number of other societal benefits. Habitat destruction and degradation is currently estimated to threaten some 400 native Maryland species with extinction. The key to protecting threatened and endangered species is protecting the habitat in which they exist. The Maryland Nongame and Endangered Species Conservation Act provide definitions of threatened and endangered species. Plant and animal species in Talbot that are currently considered rare, threatened, or endangered are shown in Table 7-1. Eight animal and 40 plant species are considered to be rare, threatened, or endangered in Talbot County.

Maryland law and regulations do not currently provide a definition of habitat. As a basis for establishing habitat protection measures for habitats of threatened and endangered species, habitat is defined in this Plan as “areas which, due to their physical or biological features, provide important elements for the maintenance, expansion, and long-term survival of threatened and endangered species listed in COMAR 08.03.08. Such areas may include breeding, feeding, resting, migratory, or overwintering areas.”

Wildlife Habitat and Protection of Endangered Species Policies

- C07.P. 34. The County shall coordinate with the Maryland Department of Natural Resources and the U. S. Department of Interior in the protection of rare, threatened, and endangered species habitat within Talbot County, and shall take direct action when necessary to insure habitat protection.
- C07.P. 35. Utilize County zoning to direct intense growth and development away from threatened and endangered species habitat as part of the comprehensive planning process.
- C07.P. 36. Maintain low-density resource conservation and rural/agricultural conservation zoning in areas where threatened and endangered species habitat have been identified.
- C07.P. 37. When development is proposed on a parcel containing listed species habitat, encourage use of cluster development options to restrict development disturbances to portions of the site which minimize potential impacts to threatened and endangered species.
- C07.P. 38. Incorporate threatened and endangered species habitat in required open spaces established through “Reservation of Development Rights Agreements” when required to satisfy the minimum open space requirement of cluster subdivisions or cluster subdivisions utilizing transferable development rights (TDRs).
- C07.P. 39. Support the efforts of local land trusts and conservancies to protect threatened and endangered species habitat.

C07.P. 40. Utilize local open space and recreation planning efforts to investigate acquisition and protection opportunities.

TABLE 7-1. RARE, THREATENED AND ENDANGERED SPECIES
Talbot County, Maryland

Scientific Name	Common Name	State Status	Federal Status
Animals			
<i>Alasmidonta heterodon</i>	Dwarf wedge mussel	Endangered	Endangered
<i>Alasmidonta undulata</i>	Triangle floater	Endangered	
<i>Botaurus lentiginosus</i>	American bittern	In need of conservation	
<i>Gallinula chloropus</i>	Common Moorhen	In need of conservation	
<i>Haliaeetus leucocephalus</i>	Bald eagle	Threatened	Threatened
<i>Ixobrychus exilis</i>	Least bittern	In need of conservation	
<i>Laterallus jamaicensis</i>	Black rail	In need of conservation	
<i>Rana virgatipes</i>	Carpenter frog	In need of conservation	
<i>Sciurus niger cinereus</i>	Delmarva fox squirrel	Endangered	Endangered
<i>Sterna antillarum</i>	Least tern	Threatened	
Plants			
<i>Agalinis setacea</i>	Thread-leaved gerardia	Endangered	
<i>Amelanchier obovalis</i>	Coastal juneberry	Endangered	
<i>Antennaria solitaria</i>	Single-headed pussytoes	Threatened	
<i>Boltonia asteroides</i>	Aster-like boltonia	Endangered	
<i>Carex lacustris</i>	Lake-bank sedge	Threatened	
<i>Carex silicea</i>	Sea-bank sedge	Endangered	
<i>Carex tenera</i>	Slender sedge	x	
<i>Cuscuta coryli</i>	Hazel dodder	x	
<i>Desmodium odhroleucum</i>	Cream-flowered tick-trefoil	Endangered	
<i>Desmodium pauciflorum</i>	Few-flowered tick-trefoil	Endangered	
<i>Dryopteris celsa</i>	Log fern	Threatened	
<i>Eupatorium maculatum</i>	Spotted Joe-pye-weed	x	

Scientific Name	Common Name	State Status	Federal Status
Geranium robertianum	Herb-robert	Endangered	
Gymnocarpium dryopteris	Oak fern	Endangered	
Hottonia inflata	Featherfoil	Endangered	
Hypericum drummondii	Drummond's St. Johns-wort	x	
Linum intercursum	Sandplain flax	Threatened	
Matalea carolinensis	Anglepod	Endangered	
Myrica heterophylla	Evergreen bayberry	Endangered	
Paspalum dissectum	Water's paspalum	Threatened	
Pedicularis lanceolata	Swamp lousewort	Endangered	
Pluchea camphorata	Marsh fleabane	Endangered	
Salix bebbiana	Bebb's willow	x	

Source: Maryland Department of Natural Resources, Wildlife and Heritage Service, May 29, 2002

Note: x indicates Endangered Extirpated meaning a species that was once a viable component of the flora or fauna of the State, no naturally occurring populations are now known to exist in the State.