

SENSITIVE AREAS

INTRODUCTION

The mandate to include a Sensitive Areas Element in local comprehensive plans has been codified in Article 66B of the Annotated Code of Maryland as follows:

[The plan shall include] a sensitive area element that contains goals, objectives, principles, policies, and standards designed to protect, from the adverse effects of development, sensitive areas, including the following: 1) streams and their buffers; 2) 100-year floodplains; 3) habitats of threatened and endangered species, and 4) steep slopes. (§ 3.05 (a)(1)(viii), Article 66B, Annotated Code of Maryland.)

Therefore the purpose of this chapter is to discuss these areas as well as ways in which they might appropriately be protected in Easton.

Since the adoption of the 1997 Plan, Sensitive Areas have received a lot of attention in Easton. In particular, the protection of our rivers and streams has taken on a new sense of urgency. This is not unexpected. Everyone, regardless of their opinion of development, has a stake in protecting our rivers and streams. Obviously the environmental advocacy groups see this as an important issue. However, it is also an important issue to the development community. Simply stated, it is difficult to sell waterfront development and the lifestyle associated with living on or near the water if that same water is degraded.

BACKGROUND

When discussing sensitive areas in Easton it is important to note several issues. The first issue is the nature of Easton itself. Easton is a modest-sized town (some would say a small city) experiencing growth pressures akin, in many ways, to those present in towns and suburbs in metropolitan areas. In addition, the Growth Act has the potential to escalate these pressures as State and County policies direct growth into Easton and its environs. Another issue is that Easton is very unique, particularly among Eastern Shore jurisdictions, in that it has not until very recently been located on a major body of water (a recent annexation provided Easton some frontage on the upper reaches of the Tred Avon River). Finally, it must be noted that Easton has a fairly extensive system of Environmental Protection regulations already in place. Easton's Critical Area Program, Forest Conservation Ordinance, Floodplain Ordinance and Storm Water Management Ordinance provide a high level of protection to a number of sensitive areas, including those identified by the Growth Act.

STREAMS AND THEIR BUFFERS

The importance of streams has been rather well documented, particularly in recent years with rising concern over the health of the Chesapeake Bay. The Maryland Department of Planning has summarized the justification for protecting streams rather succinctly as follows:

Streams and their buffers are valuable to people and vital to our natural resources. Streams provide drinking water for local communities, and crop-saving irrigation for farmers during droughts. Streams support recreational fishing and serve as spawning areas for commercial fish stock; and streams attract many outdoor enthusiasts such as hunters,

bird-watchers, and nature photographers. Without adequate and sustained cooling water in streams and rivers, industries and power plants would pass higher costs on to consumers. Development near stream areas subject to flooding could result in the loss of life and property.

Streams and their buffers are home to countless species of animals and plants; and streams themselves serve as lifelines to the Bay, transporting valuable nutrients, minerals, and vitamins to the Chesapeake. The floodplains, wetlands, and wooded slopes along streams are very important parts of the stream ecosystem, and in many ways determine the diversity and health of a stream. (From *Managing Maryland's Growth: Models and Guidelines - Preparing a Sensitive Areas Element for the Comprehensive Plan*, Maryland Office of Planning, May 1993).

The importance of streams is irrefutable. It is also perhaps better understood by residents, particularly long-time natives, of Maryland's Eastern Shore than the average citizen in any other part of the State. Streams have been of paramount importance on the Eastern Shore since the founding of the region. Early in this history, streams were used as transportation routes and virtually every Town or settlement of any size was founded along the shores of a river or stream. As the region grew, streams remained crucial for the many links they provided to the seafood industry on which much of this region depended.

While the importance of streams is well documented and fairly readily accepted, the need for additional protection measures in the Town of Easton is not as

readily apparent. This is due to the fact that all streams receive some level of protection. The Chesapeake Bay Critical Area Law and the Town's Critical Area Program protect tidal streams. This requires, among other things, that runoff from properties within this area reduce the levels of pollutant loading by 10% based on the pre-development conditions and that virtually no development whatsoever occur within 100 feet of the mean high water line of the corresponding body of water. In most cases this buffer is expanded to 300 feet. Non-tidal streams are governed by State and/or Federal non-tidal wetlands laws and include a 25-foot buffer within which no development can occur. State officials have suggested that to be truly effective, this width should be increased to 50 to 100 feet.

One area with regard to streams which is of special concern are areas under development where land has been stripped for grading and then rains produce a great deal of sediment that is not caught due to inadequate silt fences and winds up in various waterways. More stringent monitoring of runoff requirements during construction should be a priority to help ensure the health of our local water bodies.

Given these conditions and the reality that State, County, and Town of Easton growth policies all assert that growth should be concentrated in and around Easton, little additional protection is necessary or practical, beyond increasing the stream buffer width to 50 feet. The most effective way in which streams and their buffers can be protected in Easton is through the early identification of this feature in the site planning and development process and adherence to the Design Principles as outlined in the Land Use and Growth Chapter. The principle "Natural Features should Determine Design," is particularly appropriate.

Beyond buffers, the quality of rivers and streams is protected through storm water management. Stormwater management simply refers to the way in which rain that runs off a site is treated. Traditionally swales and ponds have been used to manage stormwater. However, the State of Maryland has recently published the 2000 Maryland Stormwater Design Manual, which presents a number of alternative stormwater management practices. In June of 2001, the Town of Easton adopted a new Stormwater Management Ordinance. Two significant aspects of this Ordinance are that (1) it required that the 10% pollutant reduction rule of the Critical Area apply Town-wide and (2) it incorporated the 2000 Maryland Stormwater Design Manual.

Despite this recent emphasis on alternative stormwater management practices, there are several factors hampering their implementation. These include:

- There is a certain comfort level with more traditional practices such as ponds. Engineers are familiar with their design and capabilities. The computations used are familiar and well proven whereas computations used in the design of some of the alternatives are less certain.
- Ponds are relatively inexpensive to design and construct.
- Generally speaking, the alternative practices require more area.
- Site conditions dictate which options are feasible. For example, in our area the relatively flat topography can be a drawback. An integral part of many of the alternative systems, including bio-retention, is an underdrain. Unless there is significant relief or an accessible storm drain network of adequate depth it can be difficult, if not impossible, to discharge from the underdrain system.

100-YEAR FLOODPLAINS

The 100-year floodplain is another Sensitive Area that is not very prevalent in Easton. In fact, in a recent Community Assistance Visit with the State Department of Natural Resources concerning Easton's Floodplain Program, it was estimated that there are only 15 persons residing in the floodplain in the Town of Easton. In addition, it was estimated that there are six residential structures, two publicly owned structures (utilities complex) and seven "other" structures located in the special flood hazard area. There were no permits issued for any structures in the floodplain between Community Assistance Visits (1993-1996).

The Town of Easton's Floodplain Ordinance does not prohibit development within the 100-year floodplain. This is consistent with the National Model Ordinance and the National Flood Insurance Program. Structures may be constructed in the floodplain provided they are either elevated above the level of the 100-year flood or otherwise flood-proofed in an acceptable manner. Severely limiting development in floodplain areas protects not only human life and property; it also protects sensitive ecological areas and water quality from degradation.

While the Town does not explicitly prohibit development in the floodplain, it strongly discourages such activity. This is almost never a problem because (1) the floodplain in Easton is generally very narrow; (2) it is usually otherwise undevelopable; and (3) there is virtually always ample room elsewhere on the lot or parcel in question on which to develop. Given these factors, no additional protection measures for 100-year floodplains are deemed to be necessary in Easton at this time.

HABITATS OF THREATENED AND ENDANGERED SPECIES

The 1997 Comprehensive Plan stated that Habitats of Threatened and Endangered Species was the one component of sensitive areas that potentially was not receiving enough protection. This was due to the fact while these areas are identified and protected through Critical Area and Forest Conservation review, a lot of development in Easton occurred under the provisions of a Forest Conservation Declaration of Intent. However, this "loophole" is now in the process of being closed in most cases. In 2001 the State of Maryland enacted amendments to the State Forest Conservation Legislation, which requires local governments with Forest Conservation Ordinances to do the same. One of the changes will limit the use of Single Lot Declarations of Intent to residential properties. The effect of this change will be that the problem with Declarations of Intent described in the 1997 Plan will no longer exist.

Presently, development within the Chesapeake Bay Critical Area must address the issue of Threatened and Endangered Species, as do any projects subject to the full requirements of the Forest Conservation Ordinance. Most projects, particularly large projects will require at least a Simplified Forest Stand Delineation, which would indicate Habitats of Threatened and Endangered Species. This would then become a basis for designing the development with such sensitive areas being the prime location for protection.

The Delmarva Fox Squirrel, a state and federally listed endangered species, is known to occur on the property designated as future residential development to the southwest of the town of Easton. Delmarva fox squirrel habitat is generally characterized as forests with relatively mature trees, either hardwoods or loblolly

pine, with a relatively sparse understory. At least three development projects have been significantly impacted by the presence of Delmarva Fox Squirrel habitat since the 1997 Plan was adopted. It is reasonable to expect the same to occur in other growth areas during the upcoming Planning period.

If proposed activities do not occur within the forested areas on the property, then Delmarva fox squirrel habitat will not be impacted. However, if development in the forested areas or timber harvesting is being planned, the following should be considered:

1. As much contiguous forested acreage as possible should be retained.
2. If clearing is necessary, at least 25% of the suitable forested area should remain unaltered or a minimum of 10 acres whichever is greater.
3. This unaltered Delmarva fox squirrel habitat should be retained as a contiguous forested tract, not as small disjunct parcels.
4. Required forested buffers, such as buffers along streams or nontidal wetlands, should be expanded to at least 100 feet and preferably 300 feet in width.
5. Retention of mast producing trees such as oaks, hickories and beech is encouraged.

HBCP biologists use these general guidelines for Delmarva fox squirrel habitat protection. For more specific technical assistance regarding projects relative to

Delmarva fox squirrel protection interested individuals should contact the Maryland Department of Natural Resources.

There are Least Tern colonies located at Easton High School, at the United States Post Office Sorting Center on Commerce Drive and the roof of the Giant supermarket off Elliot Road. Least Terns are listed as a threatened species in Maryland. State law (§10-2A-01/09) requires the Department of Natural Resources and all other units of Maryland state government to take every practical step to conserve listed species. Significant mortality of chicks or eggs resulting from disturbance of the colony during the breeding season is a violation of the U.S. Migratory Bird Treaty Act.

Least Terns establish nesting colonies at predator and disturbance free barren areas of sand and/or gravel. In natural situations these areas are beaches or small islands. High quality locations, such as coastal barrier beaches can be used for many years, poorer locations are normally only occupied for a few years. The pressures of growth and development in Maryland have resulted in a scarcity of high quality natural sites and Least Terns now frequently nest at "unnatural" locations such as building roofs, dredged material islands, and areas graded just prior to development. Most colony sites are located within 1 mile of water, and often within sight of water.

To protect natural Least Tern colonies the Maryland Department of Natural Resources uses the following guidelines:

1. Establish a protection area of 660 feet from the colony's outer boundary. Within this area, establish two zones of protection: Zone1 extends from the outer boundary of the

colony to a radius of 330 feet, and Zone 2 extends from 330 feet to 660 feet in radius.

2. During the breeding season, all human entry into Zone 1 should be restricted to only that essential for protection of the Least Tern colony. Human disturbance of colony sites that results in significant mortality of eggs and/or chicks is considered a prohibited taking under various state and federal regulations.
3. No land use changes, including development and intensive recreational use, should occur in Zone 1.
4. Construction activities, including clearing, grading, building etc. should not occur within Zone 1.
5. No construction, or other disturbing activities, should occur within Zones 1 and 2 during the Least Tern breeding season, from 15 April through 31 July.

Building roofs, dredged material disposal areas and other situations where Least Terns have been attracted to unnatural nest sites are treated on a case-by-case basis. For specific technical assistance regarding Least Terns, the Maryland Department of Natural Resources should be contacted for technical assistance. In these unnatural situations, even seemingly routine actions, such as air conditioner repair, pose a serious risk of egg and chick mortality and must be avoided. For roof nesting Least Tern colonies, roof work during the period 15 April through 31 July must be severely restricted. Planned roof work should be conducted outside the breeding season, when terns are not using the roof for nesting. If emergency repairs are

necessary during the April-July period, contact the technical expert identified below before initiating any work. The DNR will provide assistance with protecting the terns while the emergency work is conducted.

In addition, there are two sites that are known historic waterfowl concentration areas, which occur immediately adjacent to areas delineated on the comprehensive plan draft map. These are Papermill Pond, off the Tred Avon River, and a portion of Peachblossom Creek.

STEEP SLOPES

Whereas Habitats of Threatened and Endangered Species was the one component of the Sensitive Areas Element requiring the most extensive protection in Easton, Steep Slopes is the component requiring the least. The Maryland Office of Planning recognized this in their guidelines on this subject when they stated:

Some parts of the Eastern Shore have few steep slopes. The objective in these areas should be to effectively protect steep slopes, but to do so efficiently. If the background study from the Comprehensive Plan indicates, for example, that most of the significant steep slopes are along rivers and streams, then steep slope protection may be more reasonably accomplished by protecting the stream buffer system, rather than by a separate "slope" regulation. (Maryland Office of Planning, May 1993).

The situation described in this passage is, in fact, the case in Easton. Virtually all steep slopes are located either in the Chesapeake Bay Critical Area or adjacent to a non-tidal wetland. In both cases they are included in buffers within which no

development may occur. If there are any rare cases in which steep slope exist outside one of these two areas, they should be identified during the sketch site plan or subdivision plan step in the development review process. Again, adherence to the design principle, "Natural Features Should Determine Design" should adequately protect this sensitive area.

SENSITIVE AREAS MAP

A Sensitive Areas Map is located at the conclusion of this chapter. It includes the Chesapeake Bay Critical Area boundary, floodplains, forest areas, and streams with a 50-foot buffer. This Map should be consulted early in the site planning process by prospective developers in the Town of Easton. However, it must be emphasized that this Map is very general. It should not be taken as anything more than a general guideline of potential environmental constraints to development and to identify features that may be more beneficial to the Town's residents in a natural state rather than as developed land. The most important part of this stage of site planning still involves fieldwork to determine the exact location and inclusion of all of the environmental features on a given site.

SENSITIVE AREAS GOALS AND OBJECTIVES

GOAL: To protect and, where possible, enhance the natural environment of the Town of Easton and its environs while recognizing the role of the Town as a regional growth center.

OBJECTIVES:

- ✓ Identify, through an environmental impact analysis, and protect environmentally sensitive areas during the initial stages of the development review process.
- ✓ Direct development, whenever possible, away from environmentally sensitive areas so that impacts are avoided to the greatest extent possible.
- ✓ Coordinate, and where necessary enhance, sensitive areas protection with other Town environmental programs such as the Critical Area Program, the Forest Conservation Ordinance, the Floodplain Ordinance, and the Stormwater Management Ordinance.
- ✓ Encourage the use of innovative and flexible development techniques as a means to protect environmentally sensitive areas.
- ✓ Runoff from construction projects should be monitored for compliance with existing stormwater requirements and action taken to correct any deficiencies.
- ✓ In large scale developments, ensure that only the phase(s) currently under construction are cleared of ground cover so unnecessary runoff from these sites will be prevented.
- ✓ Explore the possibility of providing curbside recycling for all Town residents in order to preserve the life of the present landfill.
- ✓ Consider, where practical and feasible, the purchase of alternative fuel fleet vehicles.

GOAL: To incorporate environmentally sensitive areas in the Town's proposed system of green infrastructure.

OBJECTIVES:

- ✓ Link larger environmentally sensitive areas, such as forest conservation retention areas, Delmarva Fox Squirrel Habitat areas, wetlands, etc..., by establishing wildlife corridors.
- ✓ Enhance existing corridors by protecting additional adjacent area and planting with native plant species.
- ✓ Establish new, or add to, existing corridors by encouraging developers to link forested areas they must either preserve or provide in order to comply with the Town's Forest Conservation Ordinance.

GOAL: To minimize and mitigate adverse impacts to water quality.

OBJECTIVES:

- ✓ Encourage the use of innovative alternative stormwater management techniques.
- ✓ Annex Easton Point and connect the homes located there to the Town's wastewater system and eliminate private septic systems.

GOAL: To protect the 100 year floodplain throughout Town.

OBJECTIVE:

- ✓ Continue to administer a Town Floodplain Ordinance and to discourage construction within the 100 year floodplain.

GOAL: To identify and protect Habitats of Threatened and Endangered Species.

OBJECTIVES:

- ✓ Work with appropriate State and Federal agencies to identify Habitats of Threatened and Endangered Species in the Town.
- ✓ Protect Habitat areas by preserving, enhancing, and connecting identified areas via the development review process.