

**Sensitive Areas  
Element**

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## Introduction

The need to protect environmentally sensitive areas is based on the fact that these resources are vital to the well being of our community. Destruction or drastic alteration of these areas can be detrimental to social and economic welfare by creating hazards such as flooding, destruction of groundwater supplies and degrading water quality of streams and rivers. It can also mean the degrading of productive land and of the natural beauty that attracts tourists and new businesses to the Town.

Article 66B requires that the Comprehensive Plan address protection of the following four sensitive areas: 1) 100-year floodplain, 2) streams and buffers, 3) habitats of threatened and endangered species and 4) steep slopes. This element also addresses nontidal wetlands, agricultural easements and forest conservation. Finally, it includes an important section entitled Additional Action Plans.

## 100-Year Floodplain

Floodplains are by definition subject to periodic flooding. They are characterized by relatively flat topography and soil types that were laid down during past inundations. Generally, prohibition of development within the 100-Year Floodplain has the greatest potential for achieving environmental and resource protection goals. Restricting these areas within the Town from further development will also serve to protect against the loss of life and property.

The 100-Year Floodplain is shown on the adjoining graphic based on the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency. The Town's Floodplain Ordinance contains details concerning administration of this insurance program, including a 100 foot buffer that extends beyond the limits of the floodplain.

It is the Town's goal to protect the 100-Year Floodplain from adverse effects of development by halting further development in the plain and encouraging Town acquisition of properties in the plain, so that these areas can be returned to an undeveloped state.



## Streams and Their Buffers

The Chester River and Radcliffe Creek are fed by several perennial and intermittent streams. These streams are an important component of the Town's undeveloped areas and serve several functions. They intercept stormwater runoff and contribute to the quality of the Town's water resources. They contribute to the Town's environmental health by serving as pathways for transport of sediments and nutrients and promoting biological diversity by interconnecting ecological systems.

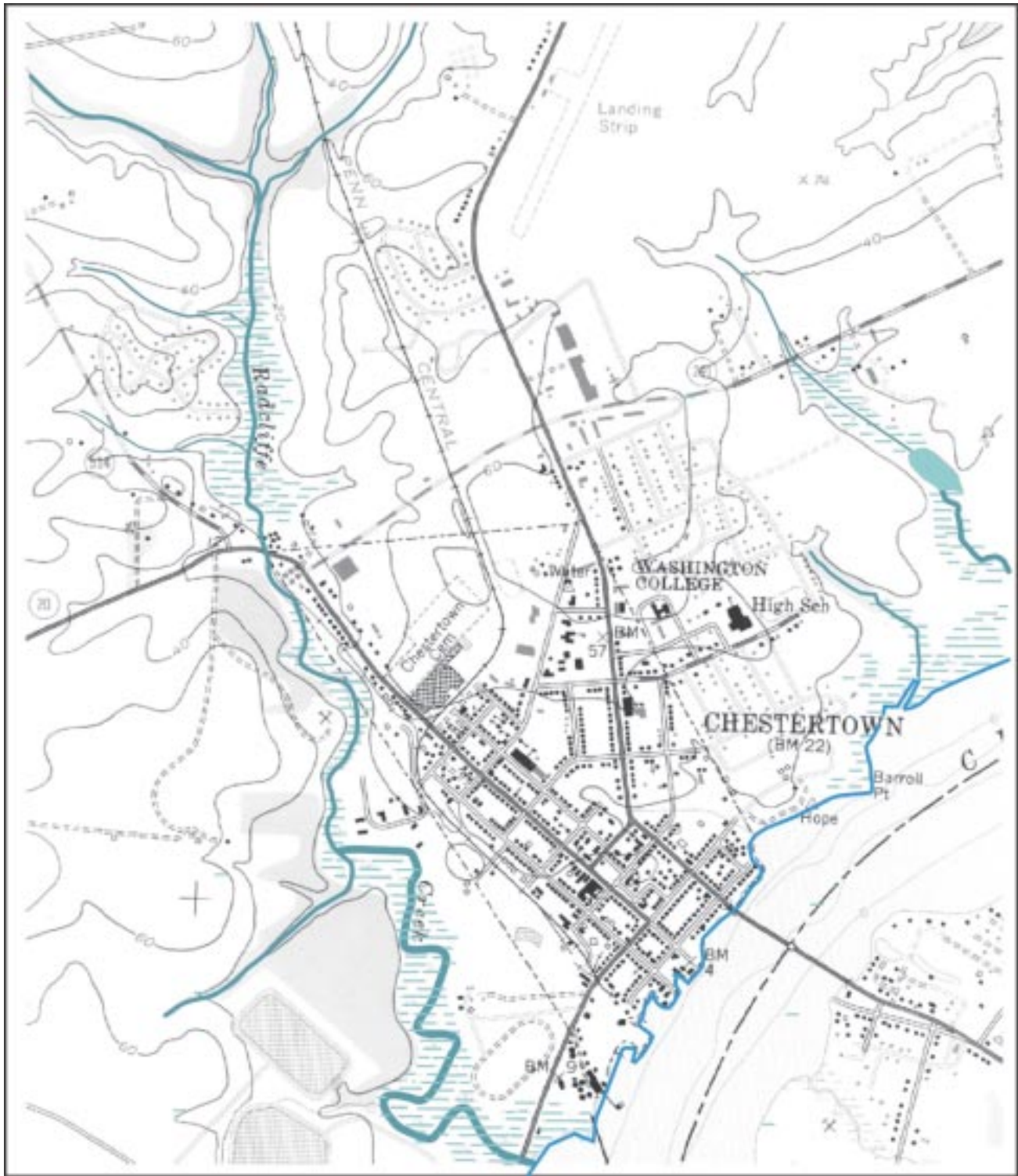
Development in the Town has resulted in significant impacts to streams and buffers. As areas of open land were built upon, new impervious surfaces, forest clearing and intensified human activity increased pollution, storm water runoff and sedimentation in streams. Maintaining the health of streams is dependent on many factors throughout the watershed; however, buffers are a critical component of the stream ecosystem. A healthy stream with steady base flow, natural bends, adequate shade cover, an integrated combination of deep pools and slow moving runs, and wide well-vegetated buffers provides the optimum water quality, habitat and ecosystem benefits.

The quality of streams and their buffers directly impacts Radcliffe Creek and the Chester River. Excess nutrients, sediments and pollutants from developed lands in the Town can contribute to overnutrification and excess turbidity. These conditions adversely impact water quality and the health of bay grasses, fish and shellfish that are important to the economy and quality of life of residents.

The Town's goal is to preserve and enhance its streams and buffers, and it intends to do so by identifying and mapping all perennial and intermittent streams and establishing a minimum 100 foot buffer from each bank; improving stormwater management in developed areas, including use of retrofit to address existing problem areas, and providing incentives for developers constructing new stormwater management structures to address areas that currently do not have such structures.

The Town will prohibit new development within stream buffers and will prohibit alteration of streambeds or stream banks, except for Best Management Practices to reduce erosion or stabilization. It will prohibit disturbance of natural vegetation within buffers, including tree removal, shrub removal, clearing, burning or grubbing. The Town will require Planning Commission review of development proposals in which applicants provide information concerning location of streams and stream buffers with respect to proposed developments.

Variances from the strict application of the stream buffer requirements may be granted by the Board of Appeals where it can be demonstrated that the existing lot size or configuration creates an undue hardship that prevents reasonable use of the property. Nonconformities created by this buffer requirement may be maintained and repaired so long as the "encroachment" is not increased beyond the existing structural footprint. Water-dependent uses are exempt from the buffer requirement.



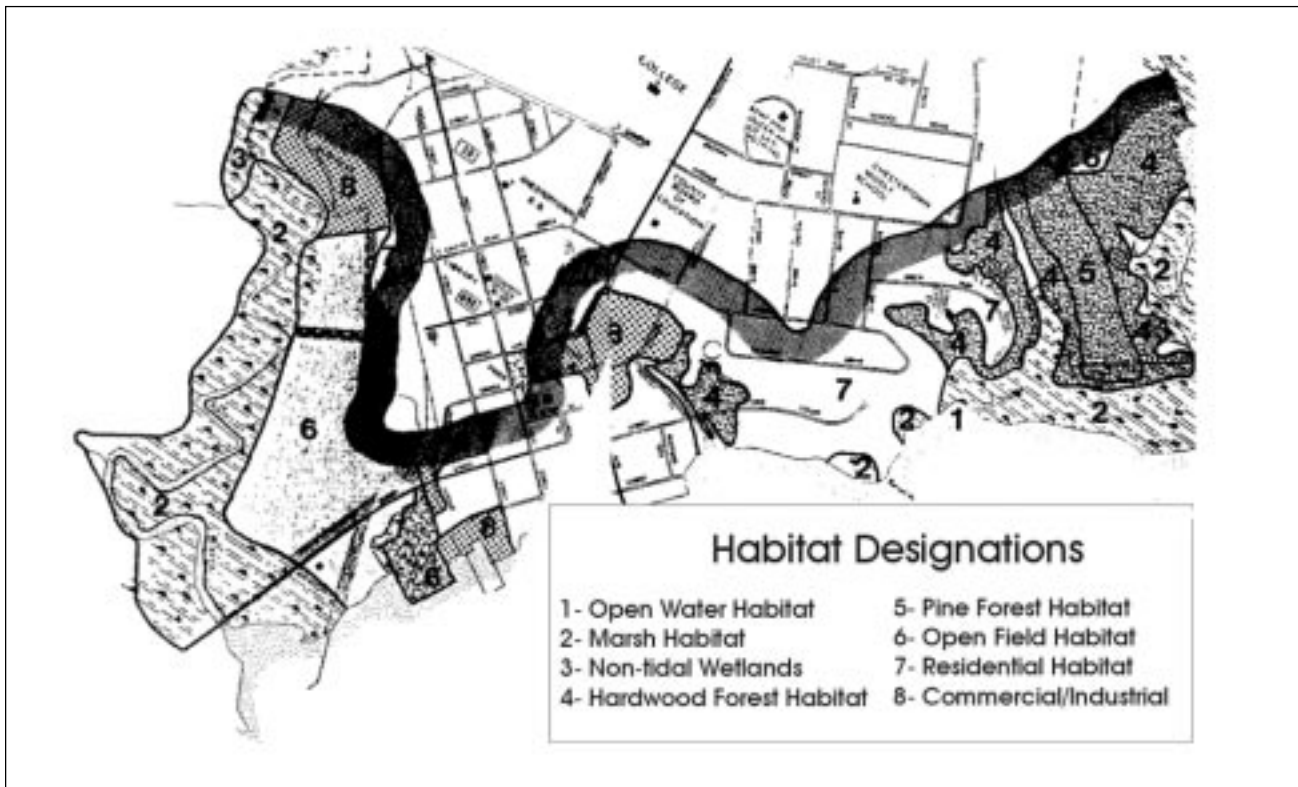
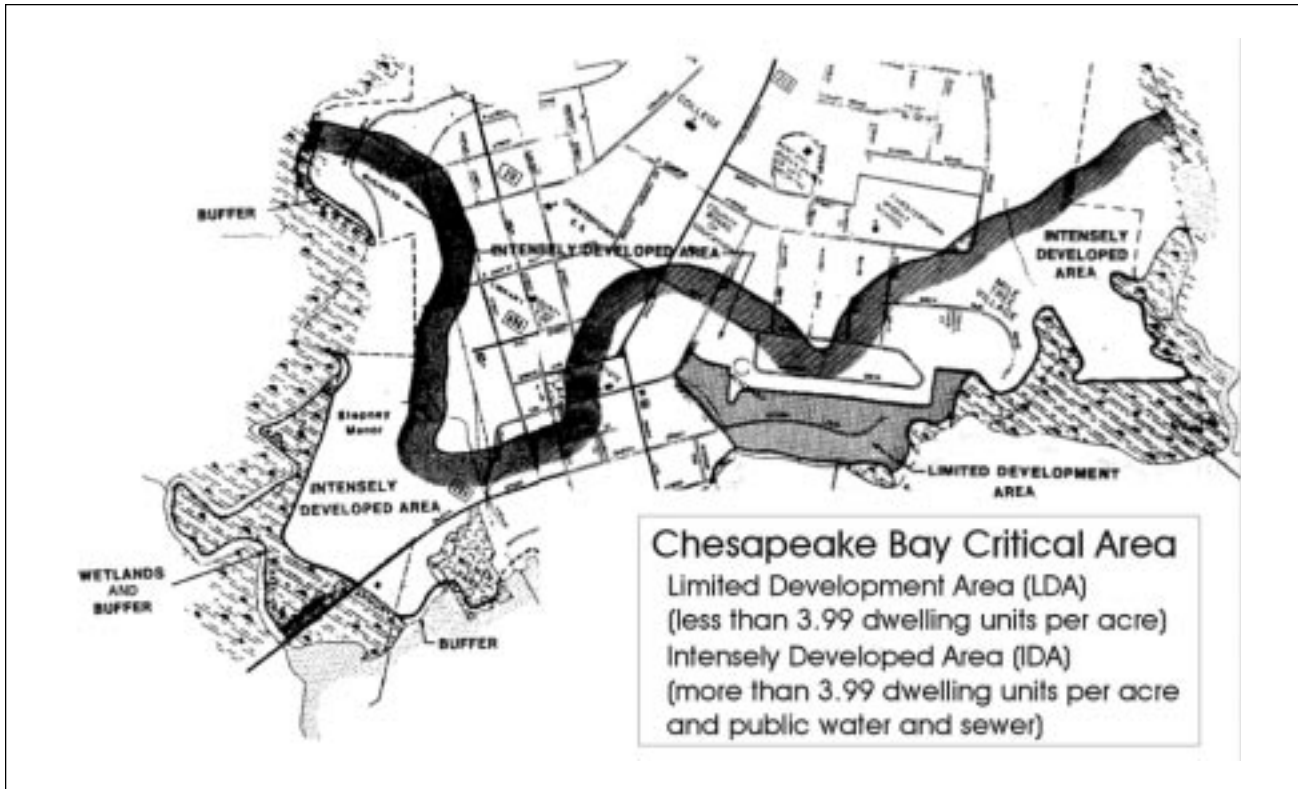
Streams and their buffers.

### **Habitats of Threatened and Endangered Species**

The physical and biological features of certain areas are uniquely conducive to the maintenance, expansion and long-term survival of threatened and endangered species. These features — which include the structure and composition of vegetation, faunal community, soils, water chemistry and quality and geologic, hydrologic, and microclimatic factors — comprise “habitats.” Protection of threatened, endangered and locally rare species is grounded in ethical and cultural reasons for preservation of all species, regardless of their known value to humans. This ethic is part of the current emphasis placed on conserving biological diversity. The key to protecting rare, threatened and endangered species is protecting their natural habitats from human disruption.

The Natural Heritage Program (NHP) at the Maryland Department of Natural Resources reports that there are no known habitats of threatened or endangered species located within the boundaries of the Town of Chestertown. It is possible, however, that habitat areas may be discovered in the future, or may be present on future annexation sites. At such time as these areas are identified, goals, objectives and policies will be prepared for each site. This work would be conducted in coordination with the NHP.

The Town’s Chesapeake Bay Critical Area program also addresses habitat issues and is incorporated by reference (See Appendix G). The Chesapeake Bay Critical Area is defined in State law as including the Bay, its tributaries and all lands located within 100 feet of tidal waters and the head of tide. Chestertown has administered a Chesapeake Bay Critical Area program, prepared and adopted in accordance with State regulations, since 1986.



### Steep Slopes

Most of Chestertown is relatively flat, and slopes are generally less than 10 percent. Localized steep slopes border the stream channels along Radcliffe Creek and portions of the Washington Park residential development area. Most of these areas are protected by Plan goals for stream buffers. However, there may be a few localized areas where slopes exceed 25 percent. Identification of these areas will result from onsite inspection suggested by the steep slope graphic and knowledge of local conditions.

Preservation of steep slopes adjacent to water courses protects water quality and aquatic habitat. Preserving vegetation on steep slopes can minimize flooding, landslides, upland slumping, erosion and pollution. Steep slopes also tend to have higher biodiversity when compared with more uniform living conditions. Conservation of the biodiversity that characterizes these areas is an important consideration in steep slope protection.

The Town's goal is that development will be directed away from areas of steep slope and that the most prominent slopes and those in greatest need of stabilization will be carefully managed. The Town will prohibit unnecessary disturbance of developed steep slopes, it will identify specific steep slope areas near Radcliffe Creek that need priority attention via stabilization and wise management and will develop Best Management Practices and mitigation techniques to be implemented on sites where disturbance to steep slopes cannot be avoided.

The Town will demand topographic information review on all subdivision and site plans; it will prohibit new development on steep slopes (greater than 25 percent), unless it can be demonstrated that the stability of the slope will be improved and that adverse environmental impacts will be mitigated. It will prohibit new development on slopes greater than 15 percent if highly erodible soils are also present unless it can be demonstrated that the stability of the slope will be improved and that adverse environmental impacts will be mitigated.



The actual extent of potential steep slopes shall be a topic of detailed investigation and appropriate action based upon the anticipated Community Resource Inventory, preliminary site plan reviews, preliminary subdivision plat reviews, and additional scrutiny prior to comprehensive rezoning.

**Nontidal Wetlands**

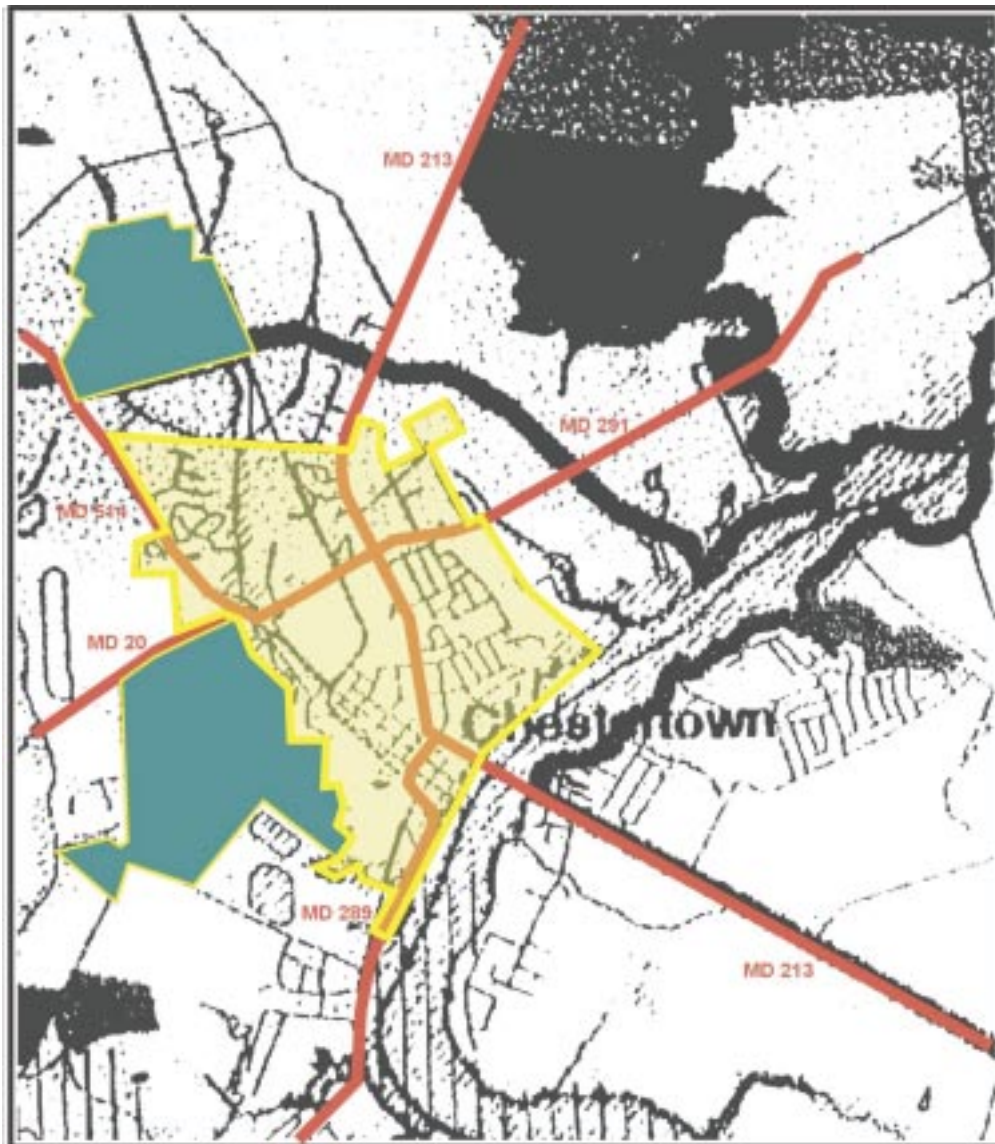
Nontidal wetlands include important environmental conditions that support plant and animal habitats important to the rural landscape. As a step toward achieving sensitive areas protection and developing an environmental stewardship ethic in all residents, nontidal wetlands have been added to the list of conditions that should be protected from development impacts. This Plan expands local protection of nontidal wetlands to include those located outside the Chesapeake Bay Critical Area. The Maryland Department of the Environment also has a Non-tidal Wetlands Program and the U.S. Army Corps of Engineers maintains primary jurisdiction over these lands. Because Federal and State regulations govern nontidal wetlands, and wetlands have implication for limiting and shaping growth patterns, the Town has identified locations of nontidal wetlands mapped on the National Wetlands Inventory in the area.

It is the Town’s intent to protect these wetlands by establishing a 50-foot “nondisturbance” buffer around all nontidal wetlands. Identification of wetlands and buffers will be part of the development review process.



### Agricultural Easements

Agricultural Easements are an important tool for protecting both environmental quality and the character and quality of life enjoyed by Chestertown residents. The open agricultural character of adjoining areas defines the location and appearance of the Town within the overall fabric of the County. From that perspective, preservation of agricultural land and the agriculture economy in the region is viewed as a sensitive areas issue. From a land use perspective, agricultural easements also restrict future development and changes in land use. These easements minimize the impacts of man on the landscape and on the environment.



Existing Agricultural Easements

Some land adjacent to town should be available for future growth and development consistent with the goals and objectives of this Comprehensive Plan and the specific recommendations of the Land Use and Transportation elements. This is an issue that the Town will coordinate more closely with Kent County and State officials. The Town will also continue to maintain open dialogue with landowners near town.

### Forest Conservation

Chestertown has adopted a Forest Conservation program and ordinance that conforms to guidelines issued by the Maryland Department of Natural Resources. Any project “disturbance” (including subdivision) that affects more than 40,000 square feet necessitates compliance with the requirements of the Forest Conservation ordinance (which restricts tree removal and specifies replacement practices at a two to one ratio).

### Additional Action Plans

In addition to the steps outlined above for protecting sensitive areas, the Town also intends to do the following within the next five years:

- Develop Conservation Corridor Zoning and Mapping to identify areas that should be preserved as open space, parkland or perhaps for transportation use, such as a Parkway Bypass. Such mapping and zoning makes clear for residents as well as potential developers that these areas are to be treated specially.
- Target resources toward protection of Radcliffe Creek. Radcliffe Creek has been mentioned repeatedly in this Plan. That is because the waterway — largely hidden, unappreciated and inaccessible — has huge environmental value and huge potential recreational and tourism value. It must be preserved and its possibilities maximized through coordination with landowners and conservation and nonprofit groups.
- Develop a Greenbelt within the Planning Area, through easements, other means necessary and coordination with the County and other landowners. A Greenbelt of open, permanent agricultural land should be preserved around Chestertown to anchor the Town’s sense of place in the landscape and to help protect the Town’s existing character. The town will depend heavily on action by Kent County planners and other officials for preservation of the greenbelt.
- Create landscape design standards for all development and redevelopment, encouraging the use of native species. Design standards should also promote “Bayscaping,” an environmentally holistic approach to landscaping that encourages native species, water conservation, diversity and creation of wildlife habitat.

