

## Natural and Historic Resources

### Existing Conditions

Forest Cover: Approximately 5,980 acres or 50 percent of the Crofton Small Area is forested. The extent of this forest cover contributes significantly to the character of the area. Although most of the forest cover occurs in small fragmented patches, some larger contiguous areas remain, especially in the western and southern portions (including the US Air Force Transmitter Station).

Streams and Their Buffers: The Crofton Small Area is a part of several watersheds: the South River, the Little Patuxent River, and the Upper Patuxent River. Many of the streams are quite long and have their own fairly extensive drainage areas. These include the North River, Bell Branch, Tarnans Branch, Ropers Branch, and several unnamed tributaries to these streams. The existing extent and condition of forest buffers along these streams have not been documented in this area. There is some evidence from review of aerial photographs and spot field checks which suggest that buffers may be intact along many miles of streams in the Crofton Small Area. The Open Space zoning along much of the North River and its major tributaries offers some buffer protection.

Wetlands: The majority of wetlands in the area are non-tidal and tidal riparian wetlands along the North, Patuxent, and Little Patuxent Rivers. There are other small, isolated wetlands scattered throughout the area. There is one large isolated wetland north of Crofton Park and east of Davidsonville Road which is indicated on mapping from the U.S. Fish and Wildlife Service National Wetland Inventory (NWI).

100- year Floodplains: Near the confluence of the North and South Rivers and along the Patuxent and Little Patuxent Rivers are tidal floodplains, consisting of areas that are susceptible to flooding by high tides, hurricanes, storms, and steady on-shore winds. Areas along the North River and its major tributaries are designated by FEMA (Federal Emergency Management Agency) as being in the 100-year non-tidal floodplain, where flooding can occur due to downstream flow overflowing the riverbanks.

Habitats of Threatened and Endangered Species: There are no mapped threatened species in the Crofton Small Area.

Steep Slopes: The eastern part of the Crofton Small Area along the North River and its tributaries, has extensive steep slopes (an incline of greater than 15 percent) This area comprises roughly 1,900 acres or 16 percent of the planning area, with about half of these steep sloped areas with slopes of over 25 percent.

*Chesapeake Bay Critical Area:* A small southeastern portion of Crofton is in the Chesapeake Bay Critical Area. This area is along the tidal portion of the North River.

**Assets and Issues**

*Forest Cover:* Existing regulations limit the extent of clearing and cutting of trees in Anne Arundel County; however, forest loss does occur as a result of development. Directing development in areas of least impact to the existing forest cover is desirable.

*Streams and Their Buffers:* The overall water quality in the Crofton area watersheds is fair, according to the Maryland Water Quality Inventory (1996). Surface waters are suitable for swimming and fishing. Elevated levels of nutrients and bacteria are attributed to urban runoff, municipal discharges, failing septic systems, and input from impaired river segments upstream of Crofton. High sediment levels have also been identified. These are attributed to agriculture, construction, and run-off.

Crofton's streams are classified as "slightly degraded", according to biological information from State and County studies. There are several mechanisms in place which should help the water quality of these streams. Anne Arundel County has prepared a watershed management plan for the South River watershed, of which Crofton is a part. In addition, the Maryland Department of Natural Resources (DNR) is the lead agency for the Tributary Strategies, a comprehensive approach to reducing nutrient pollution in Maryland's ten tributary basins to the Chesapeake Bay. The Crofton Small Area is a part of two of these basins. The Patuxent River Commission has been charged with establishing and enforcing watershed management for the Patuxent since 1981. The Patuxent River is a state-designated Scenic River under the Maryland Scenic and Wild Rivers Act.

Effective riparian buffers are typically between 35 and 100 feet wide, although widths of up to 300 feet may be recommended for wildlife habitat. Forested buffers are typically the most beneficial and should include a diversity of native, noninvasive trees and shrubs. A more thorough review of the Crofton Small Area's extent and condition of forest buffers is needed.

*Wetlands:* The NWI maps are a general guide to the presence of wetlands but are not definitive, making it necessary to perform wetland delineations on an individual site basis to establish their presence and extent. Federal, state, and county wetland regulations limit disturbances to wetlands. Anne Arundel County protects wetlands through the Critical Area program and also through sensitive area criteria in its grading and sediment control ordinance.

*100- year Floodplains:* The County requires dedication of floodplains to the County when development occurs.

*Habitats of Threatened and Endangered Species:* When a threatened or endangered species is found on a development site, protective measures for that specific species are required. For instance, eagle nests have a 1/4 mile protective area where certain limited development activities are allowed. Within 600 feet of the nest, no development activities are permitted.

*Steep Slopes:* The Grading and Sediment Control Ordinance protects slopes of greater than 15%. Slopes of 25% must have a buffer of 25 feet.

*Chesapeake Bay Critical Area:* The Critical Area is defined as 1000 feet from mean high tide or the edge of a tidal wetlands. This line was adopted by the County Council in 1988. This area is protected by a state mandated program, managing and restricting development.

### **Goals and Recommendations**

*Goal 1.* Preserve open space, particularly in wetlands, heavily wooded areas, steeply sloped areas and other environmentally sensitive areas.

Recommendations:

- Create design guidelines to preserve forested areas and target some areas for reforestation. Create corridors between isolated forest patches.
- Retain trees and plant trees where trees are lacking. This is important along streams and roads to maintain the character of the area.
- Recommend no major changes to basic land use or zoning. Thus, the basic character of the area will remain unchanged from that reflected on the current Land Use Map and current zoning.
- Discourage strip development.

*Goal 2.* Preserve agricultural land by use of easements or other methods.

Recommendations:

- Develop and enact additional incentives to maintain farmland and preserve open space, as well as legislation to encourage cluster development.
- Focus on preserving as much farmland as possible, retaining open space, protecting the environment (for example by severely limiting development in areas of steep slopes) and protecting scenic roads. In keeping with this focus, it is recommended that growth be limited to that which results in an average density of 20 acres per dwelling unit in rural areas. Development should be clustered with a maximum of 40 to 50 homes each, and with a minimum lot size of two acres.
- Amend the setback requirements to increase the distance a structure can be sited from main roads in the RA district .

*Goal 3.* Improve stream conditions, water quality, and the health of the biological communities in Crofton.

Recommendations:

- Encourage measures that will contribute to improved stream conditions in Crofton, such as:
  - identify and correct degraded physical habitat conditions along streams, (stream bank erosion, poor channel conditions, etc.);
  - ensure adequate stream buffers;
  - properly maintain septic systems and correct failing systems.
- Support the activities of the Patuxent River and Lower Western Shore Tributary Strategy Teams.

*Goal 4.* Maintain the rural character of the rural areas in the south and east of the Crofton Small Area.

Recommendations:

- Maintain, where possible a 100 foot riparian buffer protection standard outside the Critical Area.
- Require vegetated buffers along roads in the RA district.
- Create special design guidelines and enact legislation for historic and scenic roads.
- Require the consideration of topography and trees when siting new development in the RA district.

*Goal 5.* Improve stormwater management to reduce and, where possible, eliminate the negative environmental impacts of stormwater runoff.

**Recommendations:**

- Implement a watershed approach to stormwater management, land use planning, development, permitting, and capital improvement program planning and execution to ensure that potential cumulative impacts of land use changes are fully addressed prior to implementation of those land use changes.
- Adopt and implement stormwater management regulations into County laws, regulations, standards and guidelines resulting in County regulations and requirements that are at least as stringent, if not more stringent, than State regulations and requirements.
- Ensure all engineering design for stormwater management facilities is site appropriate and strictly adheres to the Maryland Stormwater Design Manual or County Stormwater Design Manual, whichever is more stringent.
- Encourage the use of innovative approaches to stormwater management and low impact development site design in the land development process (e.g., Better Site Design: A Handbook for Changing Development Rules in Your Community, 1998,

- prepared by the Center for Watershed Protection, Ellicott City, MD).
- Continue and, if possible, accelerate the County's ongoing effort to comprehensively identify, analyze and, where needed, retrofit stormwater management problem areas.
- Account for and minimize impacts to the 100-year floodplain with respect to stormwater runoff increases and the need for stormwater management design to accommodate increases in runoff resulting from comprehensive and site-specific rezoning.
- Establish a comprehensive stormwater infrastructure preventative maintenance and management program that reduces environmental degradation and extends infrastructure useful life.
- Aggressively pursue incentive-based approaches (e.g., state grant funds) to achieve retrofitting of areas in need of improved stormwater management.
- Ensure that all governmental sponsored land use projects adhere to the highest environmental regulations and standards with regard to site design and stormwater management facilities, thus setting the environmental standard to be followed.
- Implement, where possible, a minimum 100 foot riparian buffer to all tributary streams in the County to minimize impacts of stormwater runoff on these sensitive tidal and non-tidal aquatic systems.
- Foster community education about stormwater issues through cooperation with local citizen groups, public and private schools, park and recreation programs, and use of the Internet.

## **The Patuxent River**

The Patuxent River is the largest intrastate river in Maryland, flowing through seven counties (Montgomery, Howard, Anne Arundel, Prince George's, Calvert, Charles and St. Mary's) for a total distance of 110 miles. In 1980, the General Assembly enacted the Patuxent River Watershed Act, which created the Patuxent River Commission in 1981 as part of the Department of State Planning. Each county has a representative on the Commission in addition to a representative from the Maryland Office of Planning, and the Departments of Natural Resources and Health and Mental Hygiene.

In 1984, the Patuxent River Policy Plan, a land management strategy to protect the Patuxent River and its watershed, was created. Twenty goals were agreed upon which provided a vision to restore and maintain water quality, habitat, and groundwater and surface water supplies. The Policy Plan also included ten recommendations to control non-point source pollution, which are listed in Appendix 7.

The plan was updated in 1997, and all seven county governments in the Patuxent Watershed and the General Assembly have approved the resultant “Patuxent River Policy Plan”.

The Patuxent River Greenway is partially complete and will eventually include connected land in portions of seven Maryland counties. The greenway will connect a variety of environmentally sensitive areas including: Patuxent River State park, Oxbow Nature Area, and Jug Bay Wetlands Sanctuary, which is part of the National Estuarine Research Reserve system. The Patuxent Regional Greenway promotes passive recreational and educational opportunities.

The South County, Odenton, Crofton, and Jessup and Maryland City Small Area Planning Committees recommend that the County fully support the Patuxent River Commission and the Patuxent River Policy Plan, and that the implementation of the plan be a high County priority. In addition, it is recommended that the County establish a Patuxent River Greenway which would follow the basic principals as provided below.

*Goal 6.* Establish a Patuxent River Greenway.

A greenway is a continuous system of open spaces such as parks and privately owned natural areas, which are connected in some way. In the case of the Patuxent River Greenway, this connection is the Patuxent River itself. A greenway serves several purposes such as: preservation of historically or culturally significant areas, protection of wildlife habitat, public recreation and education, or simply conservation of an exemplary natural area. The primary purpose of the Patuxent River Greenway is protection of the river and its natural resources, including wildlife, wildlife habitat, wetlands, and water quality. Although certain areas of the river are open to the public, the majority of the area is under the stewardship of private landowners. Therefore, the greenway will serve the purpose of recreation and education in public areas and recognition of and assistance to landowners in privately owned areas.

The Patuxent River Greenway will:

- a) Recognize landowners for their past stewardship of the natural environment along the Patuxent River;
- b) Offer management information and services landowners might need to continue or improve their effective management of this unique and valuable resource;
- c) Build a community of landowners and other community members interested in the continued protection of the Patuxent River's natural resources;
- d) Protect and improve wildlife habitat by maintaining the natural state of the river corridor;
- e) Determine the sources of pollution impacting the river and ways to reduce this impact.

- f) Monitor the health of the river at public access areas and on private property if requested.
- g) Educate the community about water quality and the importance of wetlands and riparian buffers.

Recommendations:

- The County shall endorse the general concept of a Patuxent River Greenway and should establish through legislative action an overlay zone or zoning district, which would be designed in such a manner as to accomplish the objectives of the Greenway and implement the recommendations of the Patuxent River Policy Plan. A draft of the Greenway Overlay is located in Appendix 6.
- The County Council should establish a Patuxent River Greenway Committee that would be responsible for developing a comprehensive program building on the base recommendations of the Patuxent river Policy Plan and tailoring a program to the specific needs of Anne Arundel County. The Greenway Committee would be comprised of appropriate county and state staff, local landowners, community leaders, industry representatives, environmental organizations and elected officials.
- Protect the Patuxent River for use by present and future generations through the completion of the Patuxent River Greenway.
- The County, working with nonprofit partners, should seek to permanently protect properties along the Greenway corridor to preserve them from future development or inappropriate use. This should include pursuing the donation and purchase of conservation easements, and where appropriate land in fee, and providing landowner incentives for using best management practices, providing public access, providing land for forest and wetland mitigation, and other related practices. These incentives should take the form of property tax abatements, grants, liability insurance (for lands open to public use -- as is done by the State for certain forestry educational activities), cleanup and maintenance assistance in areas open to the public, etc.
- Wetlands and other sensitive habitats such as critical area boundaries, should be delineated and buffers identified and established.
- Educate the community on the importance of greenways as areas of open space, wildlife corridors, and transportation connectors.
- Develop "water trails" for canoeing and kayaking where appropriate.





**Table 4. Historic Buildings/ Sites and Scenic and Historic Roads in the Crofton Small Planning Area**

| Number  | Name of Historic Building/Site |
|---------|--------------------------------|
| AA0102  | Rutland Schoolhouse (site)     |
| AA0103* | AA County Free School          |
| AA0106  | Kimm Residence (site)          |
| AA0187  | Whites Hall                    |
| AA0188* | Linthicum Walks                |
| AA0191* | Rosehill                       |
| AA0192  | Hall’s Grove                   |
| AA0193  | Middle Plantation              |
| AA0208  | J.B. Fulton House              |
| AA0260  | Nancarles                      |
| AA0747  | Shingled Farmhouse (site)      |
| AA0748  | Ganter House (site)            |
| AA0753  | Large Frame Bungalow           |
| AA0780  | Wilson Mem. A.M.E. Church      |
| AA0848  | Woodfield-Ridgely Cemetery     |
| AA0881  | Cedar Grove (site)             |
| AA0922  | Old Linthicum Mill Dam         |
| AA0927  | Ferdinand Duvall Grave         |
| AA0977  | Mt. Airey Farm (site)          |
| AA1038  | Hopkins Mill House             |
| AA1039  | Linthicum Mill                 |
| AA2117  | Tarnan’s Branch Mill (site)    |

Scenic and Historic Roads

Johns Hopkins Road  
 Underwood Road  
 Defense Highway (MD 450)  
 Bell Branch Road  
 Davidsonville Road (MD424)  
 Rossback Road  
 Rutland Road

\* indicates National Register of Historic Places