

## **Chapter 9**

### **Natural and Historic Resources**

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#### *Natural and Historic Resources*

##### *Streams and Watersheds*

The Severna Park Small Planning Area is situated within two Anne Arundel County watersheds, the Magothy River Watershed and the Severn River Watershed. The majority of the planning area is found in the Magothy River watershed, with the lesser portion draining to the Severn River watershed. Tributaries within these watersheds are typical of streams found within the Coastal Plain Physiographic Province of Maryland and tend to be short, first and second order streams.

Major tributaries to the Magothy River include Old Man Creek, Cattail Creek, Cypress Creek, and Dividing Creek and Mill Creek. Additionally, the headwaters of the Magothy River, including Lake Waterford, comprise a portion of the northern boundary of this small planning area. Tributaries to the Severn River that are located within the Severna Park Small Planning Area include the most downstream portions of Severn Run, Coolspring Branch, and Forked Creek. Additionally, Yantz Creek and Sullivan Cove are located along the Severn River shoreline in this planning area.

In 1971, the Maryland General Assembly recognized the scenic and historic value of the Severn River and incorporated this waterbody into the Maryland Scenic and Wild Rivers Program. The purpose of this designation is to preserve and protect the water quality and to promote the wise use of its resources.

Both the Magothy River and the Severn River have active citizen watershed organizations. The Magothy River Association and the Severn River Association both actively promote responsible stewardship of their watershed and water resources. Specific activities include participating in water monitoring activities, planting and monitoring submerged aquatic vegetation (SAV) beds, re-establishing healthy oyster habitat, and coordinating education and outreach programs within their respective watersheds. A third watershed organization specific to the Severn River, the Severn River Commission, is a quasi-governmental organization established in 1985 by Resolutions of the Anne Arundel County Council and the City of Annapolis Council. The Commission, comprised of citizens appointed by the local governments, acts as an advisory body to the County, the City of Annapolis, and the State on environmental matters within the Severn River Watershed. The Commission addresses questions relevant to private or administrative considerations and strives to achieve balance between governmental necessities and civic concerns.

During the mid 1980s to mid 1990s, several studies were undertaken in the Magothy and Severn River watersheds. In 1987, the draft Magothy River Comprehensive Watershed Management Master Plan was completed. Although this plan was never finalized, several of the recommendations were implemented. Additionally, through the 1980s and into the 1990s several studies of the Severn

River watershed were completed. “Gems of the Severn” provided an inventory of ecologically, historically, or archaeologically important sites and features in the watershed, and “Living with the River” presented a development management plan for the watershed.

The County’s General Development Plan (1997) recommended completion of watershed management master plans for the County’s 12 major watersheds. The first of these plans to be completed was specific to the South River watershed. This master plan identified areas currently subject to adverse impacts of stormwater runoff, and areas that would be subject to stormwater runoff impacts under future conditions if full build-out of current zoning was realized. Specific problems addressed included soil erosion and sedimentation, flooding, nutrient and heavy metal transport. Management alternatives to address current and potential future impacts were identified and proposed for implementation. A similar plan for the Severn River watershed was initiated in February 2001. The proposed land use changes that arise out of the small area planning process will be reflected in this watershed study.

### ***Critical Area***

In 1984, the Maryland General Assembly passed the Critical Area Law in response to the environmental decline of the Chesapeake Bay. This law created a special planning area encompassing all wetlands, land, and water areas within 1000 feet beyond the landward boundaries of mean high tide or the edge of tidal wetlands as designated on the State Tidal Wetland maps. The Critical Area Commission was also created to formulate protective criteria for the use and development of this planning area and to oversee the programs developed by local jurisdictions. The State law required local jurisdictions to develop their own Critical Area Programs, based on the protective criteria formulated by the Commission. The Commission is also responsible for reviewing the local jurisdiction’s Program, and interacting with the local jurisdiction, on a routine basis.

Subsequent to the promulgation of the State Law, Anne Arundel County developed a Critical Area Program and, as directed by the Commission’s criteria, designated three categories of development within the Critical Area. The delineation of the development categories was based on the existing development and available public services as of December 1, 1985. The three categories are Intense Development Area (IDA), Limited Development Area (LDA), and Resource Conservation Area (RCA). Once an area is designated, it must be developed or redeveloped following criteria for that particular designation.

The Commission’s criteria also required the County to designate Habitat Protection Areas (HPAs) within the Critical Area. These HPAs include historic waterfowl staging and concentration areas, colonial water bird nesting sites, threatened and endangered species and species in need of conservation, anadromous fish spawning areas, existing riparian buffers, forested areas used by forest interior dwelling birds, nontidal wetlands, Natural Heritage Areas,

and other areas of local significance.

The Magothy and Severn Rivers, and their tidal tributaries are in the County's Critical Area and are subject to the provisions of the Critical Area Program. Within the Severna Park Small Planning Area all three categories are represented, with LDA and RCA being the predominant categories. The RCA development area, indicating the more environmentally sensitive land is designated on Map 5. The development requirements for all three categories are described below:

IDA: These areas can be developed with housing, commercial, or industrial uses, according to the underlying zoning. However, pollutant loading must be reduced by 10% over existing conditions and designated HPAs must be preserved. Additionally, a minimum of a 100-foot undisturbed buffer between the water and the developed land is required.

LDA: These areas can be developed with housing (a maximum of 3.99 units per acre), commercial, and small industrial uses according to the underlying zoning. Again, the minimum 100-foot buffer between the water and the developed land is required and HPAs must be preserved.

RCA: Development within the RCA is limited to one dwelling unit per 20 acres. Other permitted uses include agricultural and forest uses and resource utilization according to the underlying zoning designation. Again, the minimum 100-foot buffer between the water and the developed land is required and HPAs must be preserved.

Development in both the RCA and LDA designations also require that impervious surfaces be limited to 15 to 25% of the site. Clearing of forested lands is limited and there are specific requirements for reforestation for any clearing.

To enhance and stabilize the County's tidal shoreline, the County promotes the planting of native emergent shore grasses through the Emergent Grasses Program. This program provides native wetland plants to homeowners for revegetating tidal wetland and shoreline areas. County staff work with the homeowners, providing planting instruction and assistance.

### ***Floodplains***

Floodplains are the areas adjacent to a stream or river that are subject to flooding or inundation during storm events. The 100-year floodplain is the area adjacent to a stream or river that floods, on average, every 100 years. The major streams draining to the Magothy and Severn Rivers have been previously identified. The 100-year floodplains of these streams are delineated on the Environmental Features Map (Map 5). These floodplains have been identified through the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) and through specific floodplain studies. Such studies include the 1987 Magothy River Comprehensive Watershed Management Master Plan, which delineated floodplains as part of the work effort.

Anne Arundel County first began protecting streams and floodplains in the early 1950s when platting of lots in the 50-year floodplain was prohibited. However, much of the legislation protecting floodplains was not adopted until the late 1960s and early 1970s. Therefore, early development review did not account for impacts from increased stormwater runoff from individual sites or the cumulative impacts of stormwater runoff in a drainage basin. This resulted in stream bank and streambed erosion in many of the County's streams.

Through implementation of the Floodplain Management Ordinance (Article 21 of the County Code) and provisions of Article 26 (Subdivision) of the County Code, requirements for development in or adjacent to the 100-year floodplain are set forth. Currently, developers are required to delineate the 100-year floodplain and the County prohibits lots from being platted in that floodplain. The floodplain is to be retained in or restored to its natural state and dedicated and deeded to the County as part of the development process. Although the floodplain may be deeded to the County, the developer reserves an easement to the community or homeowners association for the right to use the area in a manner not inconsistent with the maintenance and preservation of the 100-year floodplain.

### ***Steep Slopes***

Steep slopes are defined in the County Code as a slope characterized by an increase in runoff, erosion, and sediment hazards and that (1) have an incline greater than 15% and (2) in the Critical Area have an incline equal to or greater than 15%. Generally, steep slopes cannot be disturbed unless the disturbance will improve an existing erosion problem. Moreover, slopes with an incline greater than 25% must have a 25-foot buffer between the top of the slope and any land disturbing activity. Development may occur within the designated steep slope areas as per the provisions of Article 21, §2-302 of the County Code. These provisions include allowing development if at least 30% of the parcel to be developed has less than 15% grade and is contiguous to a County road that allows direct car access to the principal structure. Within the Severna Park Small Planning Area, steep slopes are found predominantly along the Severn River and are characterized as steep bluffs overlooking the water.

### ***Wetlands***

Wetlands located in the Severna Park Small Planning Area include both tidal and non-tidal wetlands. Wetlands have long been recognized as an important component in the health of the Chesapeake Bay. They provide numerous environmental benefits that include filtering sediment and nutrients from upland runoff, controlling flooding and shoreline erosion, providing nurseries for shellfish and finfish, absorbing nutrients from the water column, and providing valuable habitat for many aquatic and terrestrial species of plants and animals. Tidal wetlands are important to commercial and recreational fisheries because many of the Bay's commercial fin and shellfish spend some portion of their lives in this environment. The aesthetic value of tidal wetlands is demonstrated by the many residents who want to live on or near the water.

The County protects tidal wetlands through implementation and enforcement of the Chesapeake Bay Critical Area Program. Through the County permit process, any proposed impacts to tidal

wetlands are assessed by the permit reviewer to determine compliance with Critical Area requirements.

Non-tidal wetlands are areas that are characterized by an ample water supply, saturated or hydric soils, and hydrophytic vegetation. These characteristics distinguish wetlands from upland areas and provide the framework for the regulatory definition of non-tidal wetlands used by the State and the Federal government. There are many types of non-tidal wetlands, such as forested wetlands, scrub-shrub wetlands, and wet meadows to name a few. Non-tidal wetlands provide many of the same environmental functions as tidal wetlands, including habitat for fish and wildlife, maintaining water quality and flood control, reducing nutrients from runoff, and enhancing groundwater recharge.

The County protects non-tidal wetlands through the implementation and enforcement of the Chesapeake Bay Critical Area Program, the Sensitive Area Criteria in the County Grading Ordinance and cooperation from Maryland Department of the Environment and the U.S. Army Corps of Engineers. Should an applicant proposes to disturb non-tidal wetlands within the Critical Area he/she needs not only a building and grading permit, State and/or Federal Permit approval, but also a variance to the Habitat Protection Area criteria cited in Article 28 of the County Code (Zoning Ordinance).

### ***Protected Lands***

Permanently protected lands found within the boundaries of this planning area are County and State-owned park land, and Board of Education properties. The park facilities include Kinder Farm Park, Severn Run Natural Environmental Area, Shipley's Choice Park, Elvaton Park, Lake Waterford Park, Cattail Creek Natural Area, Cool Pond Park, Cypress Creek Park, Sullivans Cove Natural Area, and the B&A Trail. Many of these protected lands provide wildlife habitat for local fauna (e.g., ground nesting birds).

### ***Threatened or Endangered Species Habitats and Nesting Sites***

Anne Arundel County relies on information gathered by the Maryland DNR Natural Heritage Program to identify threatened and/or endangered species and habitats of concern. Consultation with the Natural Heritage Program indicates one bald eagle nesting site located within the Severn Run Natural Environmental Area. Additionally, within this Small Planning Area, there are several protected habitats of threatened and endangered species. These protected habitats include Cypress Creek at MD 2, the headwaters of the Magothy River near Catherine Avenue, the Severn Run Natural Environmental Area, and Sullivans Cove Natural Area. The land immediately adjacent to Sullivans Cove contains a population of the State declining Atlantic White Cedar, a State protected species.

### ***Forest and Woodland Standards***

Acre for acre, forests are the most beneficial land use for protecting the Chesapeake Bay and its tributaries by improving water and air quality, providing wildlife habitat, enhancing the aesthetic

quality of our communities and providing recreational opportunities. Riparian forests along streams, rivers, and shorelines provide critical habitat for terrestrial wildlife species. They also influence the quality of adjoining water, acting as a living filter capturing rainfall, regulating stormwater flow, filtering nutrients and sediments, and stabilizing soils. Conserving forests through a variety of land use regulations, incentive programs, and sustainable use allows us to benefit from our forests today while still granting the option for future generations to use them tomorrow.

Development proposed in areas containing forest or woodland is required to meet conservation standards contained within the County Code. These standards have been adopted for the purpose of establishing criteria for the subdivision, grading, or clearing of forest and woodland areas. Anne Arundel County has determined that it is desirable that developers of land provide for the conservation and protection of forests, woodlands, and trees because of the significant beneficial effects of these natural resources. These benefits are realized through the quality of our air and water, plant and wildlife habitat, soil stabilization, and even maintenance of property values. These natural resources have historical value, provide recreational opportunities and visual attractiveness. It is the County's desire to encourage development that minimizes adverse effects on developing land. By requiring that forests, woodlands, and trees be incorporated into development proposals, the use of site planning and proper construction techniques will help protect these natural features.

To achieve its natural resource preservation goals and implement these conservation standards, the County has amended the grading, subdivision, and zoning ordinances with some specific performance criteria. The criteria establish forest and woodland conservation thresholds, and priorities for the retention of existing forest and woodland areas. They provide for maintenance and long term agreements, and require mitigation of cleared forest and woodland. Mitigation is accomplished through reforestation, afforestation, and mitigation fees. The assessment and protection of existing forest and woodland on a proposed development site is achieved through required forest stand delineations and forest conservation plans. Enforcement for noncompliance with, or violation of, these standards is achieved with penalties, fines, fees, and mandatory replanting and replacement.

Anne Arundel County implements its forest and woodland standards through two regulatory programs that, combined, encompass the entire land mass of the County. For development occurring within 1000 feet of tidal waters or tidal wetlands, the County's Chesapeake Bay Critical Area Program applies. Development occurring elsewhere in the County is regulated by the County's Forest Conservation Act Program. While certain standards vary from program to program, the purpose and intent of conserving forest and woodland throughout the County remains the same.

### ***Agricultural and Woodland Preservation Program***

The Agricultural Land Preservation Program is the County's primary tool for preserving farmland and woodland. The objective of the program is to support the agricultural community by helping to keep the land base available for farming, and by minimizing the impact of development in agricultural areas. The County administers both the State and County programs. Prior to 1990, the

primary means of preserving agricultural lands was through the State Agricultural Preservation Program. This program was active in the County when purchase of development rights began in 1978. In response to concerns for preserving smaller acreages of agricultural lands, the County established its own Agricultural Land Preservation and Acquisition Program in 1990. This is a voluntary program in which a landowner may enlist into the program forming an Agricultural District, receive a property tax credit, and may later offer to sell a development rights easement across the established District to the County. The property owner continues to hold fee simple title and may sell the land if he/she chooses, but the easement, which restricts development, runs with the land in perpetuity. Since 1992, the County program has been the major funding source of easement purchases.

Requirements for participation in the Agricultural Land Preservation Program through formation of an agricultural district or offering of easements include:

- A minimum acreage requirement of 50 contiguous acres used primarily for agricultural production;
- USDA Soil Capability Class I, II, III, or Class IV (with C3 and D2 slopes) on at least 50% of the land and an approved Soil and Water Conservation Plan;
- The proposed property must be located outside of Water and Sewer Categories 1, 2, and 3 as indicated by the Master Plan for Water Supply and Sewerage Systems; and
- Current zoning of the proposed property must be Residential Agricultural (RA), Residential Low Density (RLD), Open Space (OS), or R-1 Residential.

Preservation of woodland properties is also included in the Agricultural Land Preservation program. Eligibility requirements for establishing woodland districts include the following:

- Land to be included should contain at least 10 contiguous acres of woodlands per landowner;
- A minimum of 25 acres, contiguous in nature and classified as a Woodland District, is required for consideration of an easement offering;
- A Forest Management Plan, prepared for the woodland district applicants, must be reviewed and approved by the County Forest Conservation District Board and the County Forester;
- The current zoning of the property must be Residential Agricultural (RA), Residential Low Density (RLD), or Open Space (OS); and
- The proposed property must be located outside Water and Sewer Categories 1, 2, and 3 as indicated by the Master Plan for Water Supply and Sewerage Systems.

### ***Historic and Archaeological Resources***

#### **Historic Resources**

An historic site or property is a site, building, structure, district, or object that is significant in American history, architecture, archaeology, and culture and is generally 50 years old or older. An historic property usually possesses integrity of location, design, setting, materials, workmanship, feeling,

and association. It may be of value to the nation as a whole, or important to the State of Maryland, Anne Arundel County, or simply the community in which it is located. An historic property must possess at least one of the following criteria:

1. Association with events that have made a significant contribution to the broad patterns of our history;
2. Association with the lives of persons significant in our past;
3. Distinctive characteristics of a type or period of architecture, method of construction, or the work of a master architect; high artistic value; or representative of a significant and distinguishable entity whose components may lack individual distinction; or
4. Potential to yield or have yielded information important in prehistory or history.

Historic resources in Anne Arundel County reflect the County's over 300-year history. The Maryland Inventory of Historic Properties in Anne Arundel County lists over 800 historic resources Countywide. These resources include a diversity of sites and/or properties such as dwellings, agricultural buildings, cemeteries, churches, commercial buildings, industrial and engineering structures, bridges, maritime resources, military structures, small villages and towns, and scenic and historic roads. Most of the County's historic resources are privately owned; fewer than a dozen are open to the public. Within the County, 35 historic properties totaling 636 acres are protected by historic preservation easements that are held either by the Maryland Historical Trust or the National Trust for Historic Preservation.

Within the Severna Park Small Area, there are a number of Historic Sites and Buildings. The identification of these sites and buildings can be found on Table 2 while the Historic Resources Map, on page 38, shows the relative locations of the documented sites. Anne Arundel County offers protection to these historic sites via Federal and State regulations as well as County legislation. In addition to the National Historic Preservation Act and the Maryland Historic Preservation Act, historic and archaeological resources are protected by Anne Arundel County Code under Article 20, Section 2-102(8A)110.1.1; Article 26, Title 3-109; and Article 28, Section 10-125(B).

### **Archaeological Resources**

In addition to the documented historic resources, Anne Arundel County has more recorded archaeological sites than any other county in Maryland, with many more sites still to be discovered. These sites span the entire 13,000 years of human presence in the area and represent a unique and non-renewable piece of cultural heritage. The assessment of archaeological potential for unknown sites is generally based on topographic and environmental settings. Three nationally significant prehistoric resources, located in the County, include the 13,000 year old Higgins site, the earliest undisturbed site in Maryland; the Garman Site with the oldest fireplaces excavated in the State; and the Adena Site which contains exotic and unexplained artifacts from the Ohio River Valley. The highest potential for prehistoric sites is along the Bay shoreline and its tributaries or the Patuxent River and its tributaries.

Significant historic archaeological sites include the house sites of the County's first European

settlement at Providence in 1649; the Steward Colonial Shipyard burned by the British in 1781; and the lost town of London on the South River. While the oldest of these sites are clustered along navigable waterways, later archaeological and historic sites can be found in more wide-ranging locales such as farmsteads or homes along old roads or railroads. In order to preserve and protect archaeological sites, exact locations of these resources are not released to the public.

Along with Federal and State laws protecting archaeological resources, the County also protects such sites during its review of residential and commercial subdivisions, critical area allocations, zoning change requests, etc. As with historic buildings and sites, the principal County mechanism for protecting archaeological sites is found in Article 26, Title 3-109 of the Anne Arundel County subdivision regulations.

### Scenic and Historic Roads

In 1997, the County Council passed Resolution No. 45-97 which requested the County Executive to establish a program to protect, preserve, and recognize the County’s scenic and historic roads by restricting changes to their alignment, appearance, and character. The program would have the following components:

1. Procedures for designation and classification of scenic and historic roads.
2. Establishment of measures for protection of designated roads including development of abutting land and improvements to designated roads.
3. Implementation of measures for (a) preservation, (b) protection, and (c) recognition based on the classification of the road.

The Severna Park Small Planning Area has several such treasured roads including Pasadena Road, B&A Boulevard, Old County Road, Round Bay Road, and other Round Bay community roads. While the importance of protecting the scenic and historic aspect of these roads is clear, their protection must be balanced with the need for safe roads and for appropriate development.

**Table 2**  
**Historic Sites**

AA127	Duvall Homestead (site)	Jumpers Hole Rd.	Elvaton
AA130	Robinson House	B&A Blvd. (Rt. 648)	Severna Park
AA131	Boone Homestead	Maple Lane	Severna Park
AA132	Carter’s Bluff	25 Boone Trail	Severna Park
AA302	Severna Park Station	Holly Ave. & McKinsey Rd.	Severna Park
AA303	My Lord’s Gift	B&A Blvd. (Rt. 648)	Severna Park
AA307	Holly Run Farm	828 Manhattan Beach Rd.	Severna Park

AA309	Sears Residence	Jones Station Rd.	Severna Park
AA310	AA Co. Historical Society	Jones Station Rd.	Severna Park
AA777	Little Asbury M. E. Church (site)	499 B&A Blvd.	Severna Park
AA777A	Rosenwald School (site)	499 B&A Blvd.	Severna Park
AA779	Wayman's Good Hope A. M. E. Church	117 Hoyle Lane	Severna Park
AA803	Magothy Methodist Church	Ritchie Hwy.	Pasadena
AA900	Col. Meyers' House	Holly Farms Road	Ben Oaks
AA924	Eagleston's Range	26 Windward Dr.	Severna Park
AA939	William L. Duvall House (site)	B&A Blvd & Magothy Beach Rd.	Severna Park
AA1046	St. John the Evangelist Catholic Church	B&A Blvd. (Rt. 648)	Severna Park
AA1047	Woods Memorial Presbyterian Church	B&A Blvd. (Rt. 648)	Severna Park
AA1055	Elvaton House	Jumpers Hole & Elvaton Rds.	Severna Park
AA1056	Silas Church	Earleigh Heights Rd.	Earleigh Heights
AA1057	B&A Trail Ranger Station (Earleigh Heights Store & Station)	Earleigh Heights Rd.	Earleigh Heights
AA1058	Christ Lutheran Church (Listman Chapel)	Jumpers Hole Rd.	Elvaton
AA1064	Pasadena School	Pasadena Rd.	Pasadena
AA1065	Pasadena Church	Chestnut & Linden Rds.	Pasadena
AA2047	Round Bay B&A Railroad Trestle (site)	Round Bay Rd.	Round Bay
AA2053	B&A Railroad Car Barn	B&A Blvd. (Rt. 648)	Jones Station
AA2054	Jones Station House	B&A Blvd. & Hoyle Lane	Jones Station
AA2055	Ritchie Highway House (site)	Ritchie Hwy. & Magothy Bridge Rd.	Earleigh Heights

## Natural and Historic Resource Recommendations

Recommendations are organized under eighteen (18) major topics. For each topic, an issue statement has been developed along with a major goal that is intended to address the issue(s). Specific implementation strategies are also included along with an indication of whether the implementation activity is most appropriately led by the County, by another unit of government, or by community volunteers including private residents and members of the local business community.

The environmental components of the Severna Park SAP are intended to be implemented as a partnership effort between County government, local businesses, civic organizations, educational institutions, and interested private citizens. Full implementation of the Plan's recommendations requires that resource allocation decisions be made both within County government as well as within the Severna Park community itself.

### 1. Watershed Protection

**Existing Conditions:** The watershed approach to environmental protection and management is becoming increasingly viewed as the preferred way to address many environmental issues in contrast to traditional site-specific techniques.

**Goal:** To fully integrate Severna Park into watershed management programs for the Severn and Magothy Rivers as part of the broader effort to restore and protect the Chesapeake Bay.

#### Recommendations:

- Develop ways to enhance recognition among those that live and work here that Severna Park is an important part of both the Magothy and Severn River drainage areas, and that protecting the quality of these waterways and their associated creeks requires approaches that at times transcend neighborhood or political boundaries.
- Develop watershed management master plans for the Severn and Magothy Rivers.  
Lead: County with participation by Community Volunteers.
- Seek ways to enhance interjurisdictional cooperation and teaming in order to successfully implement effective means of watershed protection (e.g. interaction with Lower Western Shore Tributary Team of the Chesapeake Bay Program).

### 2. Stormwater Runoff

**Existing Conditions:** The impact of development practices that occurred prior to current law and regulation continues to have an adverse effect on the use and enjoyment of property in certain parts of Severna Park. In addition, pollutants conveyed by runoff have been demonstrated to

have a negative effect on water quality in coastal river systems of the Chesapeake Bay such as the Severn and Magothy River watersheds. Therefore approved management practices should take into account both water quality as well as quantity effects.

**Goal:** Improve stormwater management to reduce and, where possible, eliminate the negative environmental impacts of stormwater runoff throughout Severna Park.

**Recommendations:**

- Continue and if possible accelerate the County’s ongoing effort to comprehensively identify, analyze and, where needed, take corrective action to address stormwater management problem areas. These areas should include but not be limited to: Cypress Creek Road, Jones Station Road, and Dividing Road.
- Aggressively pursue incentive-based approaches (e.g. state grant funds) to achieve “retrofitting” of areas within Severna Park that are in need of improved stormwater management.
- Transfer effective model approaches to stormwater management that have been demonstrated elsewhere (e.g. those planned for the Annapolis Heritage complex) to priority sites within Severna Park.
- Review existing County laws, regulations, standards and guidelines for site plan review and approval, and seek changes in these where necessary to encourage the use of innovative approaches to stormwater management in the land development process (e.g. the National Site Planning Roundtable’s “*Consensus Agreement on Model Development Principles to Protect Our Streams, Lakes, and Wetlands*” available from the Center for Watershed Protection located in Ellicott City, MD).
- Develop and implement on a continuing basis, a program to stencil storm drains in order to enhance community awareness that these drains direct runoff to the Severn and Magothy Rivers and to the Chesapeake Bay.
- Enhance community education about stormwater issues (e.g. through the public and private schools, park and recreation programs, and use of the Internet).
- 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 as stringent as State regulations and requirements.

- Ensure all engineering designs for stormwater management facilities are site appropriate and strictly adheres to the Maryland Stormwater Design Manual and the County Stormwater Management Practices and Procedures Manual (September 2001).
- 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.
- Ensure that all government 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 perennial and intermittent tributary streams in the County to minimize impacts of stormwater runoff sheet flow on these aquatic systems.

### 3. Wetlands and Sea Grasses

**Existing Conditions:** Wetlands and sea grasses within the Severn and Magothy River watersheds have significantly declined as part of a widespread regional trend. This represents loss of valuable resources that perform a range of important functions such as protection of property from flood damage, provision of habitat, and filtering of pollutants.

**Goal:** To restore and protect valuable wetlands and sea grasses in Severna Park as part of a broader effort to address environmental management issues within the Magothy and Severn River watersheds.

#### **Recommendations:**

- Encourage private landowners in Severna Park to restore and protect wetlands and sea grasses (e.g. through programs such as: the County’s Emergent Grass Revegetation Program; BayScaping; Governor’s Wetland Restoration Initiative; U.S. Fish and Wildlife programs).
- Demonstrate successful techniques that may be used to restore/create wetlands of high value in three or more highly visible locations within Severna Park (e.g. the existing project at Severna Park Middle School).

#### **4. Chesapeake Bay Critical Area**

**Existing Conditions:** There appears to be much misunderstanding concerning the nature and value of Critical Area requirements.

**Goal:** To address citizen concerns about the Critical Area program and to enhance the program's environmental effectiveness.

#### **Recommendations:**

- Conduct a formal evaluation of the Critical Area program that focuses on environmental outcomes (i.e. impacts) rather than programmatic outputs (i.e. activities). For example, use available techniques to compare the environmental consequences of pre- versus post-Critical Area program adoption. Apply this approach to the portion of the Critical Area that lies within Severna Park and use the findings as a measure of program effectiveness for similar suburban coastal communities.
- Use the results of this evaluation to streamline and improve the effectiveness of the program.
- Solicit community input on land use issues in the Critical Area within Severna Park and develop ways to reduce any inconsistencies that may exist in the application of program requirements.
- Work to more effectively communicate information about the Critical Area program to local residents and the business community on an ongoing basis.
- Enhance enforcement of Critical Area requirements that are proven to be environmentally effective.

#### **5. Wildlife Habitat**

**Existing Conditions:** Wildlife habitat in Severna Park has been negatively impacted over time by agricultural and more recently by development activity. Opportunities exist for restoring and protecting a portion of the habitat that has been lost over time.

**Goal:** To foster habitat restoration and protection efforts throughout Severna Park on a voluntary basis.

#### **Recommendations:**

- Identify quantifiable goals for habitat restoration and protection in Severna Park and engage the community in the effort to achieve these goals. (e.g. habitat for ground-nesting birds which is one of the goals at Kinder Park; reforestation efforts, especially in areas along rivers, creeks and embayments; wetland protection and restoration).

- Promote establishment and protection of natural greenways within the Severna Park planning area, including reforestation of areas along streams and areas that link existing forested areas and other natural areas of significance.
- Encourage protection of continuous forest stands through design controls, donation of conservation easements, purchase of development rights, and acquisition of critical property.
- Support the development of a County-wide Greenways Master Plan, identifying areas already protected and targeting areas for future preservation.

## **6. Community Water Supplies**

**Existing Conditions:** It is generally recognized that Severna Park currently enjoys an ample supply of drinking water shared with other unincorporated areas and neighboring jurisdictions. This supply is provided primarily by the existing community water supply system. Two concerns are: 1) the sustainability of the resource over the next 20 years and 2) the possible need for additional efforts to ensure that the water produced is fully compliant with Federal/State treatment standards (e.g. wellhead protection and follow up related to the recent documentation of radium contamination at certain wells).

**Goal:** To ensure an adequate and safe supply of drinking water throughout Severna Park both now and in the future.

### **Recommendations:**

- Undertake a long-range (i.e. 20-year) study of the sustainability of the existing community water supply system that supports Severna Park assuming continued infill development of the immediate area and surrounding urban/suburban region of northern Anne Arundel County.
- Based on the outcome of the study, prepare appropriate contingency plans to ensure that Severna Park continues to enjoy use of a quality water supply.
- Develop and implement a community well-head protection program.
- Encourage community-based water conservation efforts.
- Continue to ensure that public water supplies that service the Severna Park area are free of contamination from naturally occurring radium (see also “Individual Wells” where this has been found to be a more significant issue).

## 7. Individual Wells

**Existing Conditions:** Recent discovery of naturally occurring radium in drinking water sampled from a certain number of individual wells concentrated in the northern portion of Anne Arundel County – an area that includes the Severna Park planning area -- has raised public concern. Although studies are still ongoing, preliminary results have caused State regulators to require that new or replacement wells must be tested for radium levels to ensure that these levels fall below federal “maximum contaminant levels” (MCL). Landowner options include redrilling the well or treating the contaminated water with conditioners that have been demonstrated to be effective in removing radium. If the latter option is selected, the owner must sign an agreement that becomes part of the property deed. Testing water for radium levels must be performed out-of-state as no labs within Maryland are certified for conducting the appropriate tests. To date, there are no requirements for the testing of existing wells and information distribution is limited to those engaged in drilling a new or replacement well.

**Goal:** To ensure that those residents and businesses that rely on individual wells in Severna Park are aware of the facts concerning possible radium contamination and that they are provided with sufficient information to make well-informed decisions about ensuring the safety of their potable water source(s).

### **Recommendations:**

- Provide for distribution of existing information (“Radium and You” Guide) to homeowner associations as well as business and civic organizations that lie within Severna Park.
- Continue scientific studies on the extent of contamination and ways to ameliorate the problem.

## 8. Public Sewers and Pumping Stations

**Existing Conditions:** While the issue of long-range treatment capacity at regional facilities is beyond the scope of the Small Area Plan, there is concern that incremental growth accomplished primarily through “infill” may stress the community collection system to the point of failure unless closely watched.

**Goal:** To ensure that Severna Park’s public sewage collection system, with its many pumping stations, is operated and maintained in good condition, and that the system be upgraded in an orderly manner when necessary to accommodate projected growth so that water quality protection is ensured throughout the community and its associated watersheds.

### **Recommendations:**

- Continue the existing preventative maintenance and emergency notification program for operation of the collection system, especially pumping stations.

- Address any existing chronic problems within collection systems.
- Maintain a well-trained operations staff.
- Provide for needed system upgrades through capital improvement planning and budgeting that is proactive in nature to ensure that growth is accommodated without negative environmental impacts that result when sewage overflows due to system breakdowns.

## 9. Septic Systems

**Existing Conditions:** Even when properly located and designed, septic systems will fail if they are not properly maintained over time. In addition, more innovative designs may achieve greater levels of pollution reduction than more traditional ones.

**Goal:** To ensure that areas within Severna Park that are not on public sewer are protected from potential negative environmental and health effects of improperly designed or maintained on-site sewage treatment systems.

### Recommendations:

- Maintain and enhance County efforts to educate homeowners and homeowners' associations about the importance of routine system maintenance.
- Continue efforts to identify and eliminate any failed systems or illegal bypasses (grey and/or black water).
- Encourage the use of innovative on-site system designs that are especially protective of water quality.

## 10. Solid Waste

**Existing Conditions:** The siting of a new landfill is a costly and difficult undertaking that will confront Severna Park and neighboring communities as the available capacity at the Millersville facility is used up over time. Because of this, the existing landfill should be more fully recognized as a county-wide resource to Severna Park as well as other communities within Anne Arundel County. Maximizing its life span is an important ingredient to sustaining community life.

**Goal:** To ensure that the residents and owners of businesses within Severna Park fully recognize the importance of the Millersville Landfill and understand the connection between various waste reduction efforts and the long-term life expectancy of the landfill as a regional waste disposal facility.

**Recommendations:** Promote and encourage the use of the Millersville Convenience Center which has

the capability of being a “one-stop-drop” center for trash and recyclables, including bulk trash brought to the facility by small trucks.

## **11. Waste Reduction, Refuse and Recycling**

**Existing Conditions:** The County has been working to stretch the life span of the Millersville Landfill by emphasizing the value of waste reduction, reuse and recycling. Accelerating the widespread adoption of these activities is needed to fully extend the life of the landfill to its maximum in the most cost effective way possible.

**Goal:** To foster community waste reduction, reuse and recycling to the greatest extent possible throughout Severna Park.

### **Recommendations:**

- Sponsor programs that educate Severna Park residents and businesses about the importance of and opportunities for waste minimization and recycling (e.g. County’s existing “Garbage Directory” has relevant information and can serve as useful resource material).
- Maintain and where possible enhance the ongoing very excellent residential curbside recycling program (e.g. increase the availability of yellow collection bins).
- Extend curbside recycling to the business community which has difficulty carrying out recycling efforts in spite of good intentions on the part of many business owners.
- Because Severna Park is an area that generates especially high amounts of yard waste, the community should consider exploring entrepreneurial arrangements that could provide an alternative to disposal at the landfill. This may necessitate certain changes to the zoning code to permit composting of yard waste in non-industrial areas (e.g. on agricultural or other suitable land).

## **12. Chemical Contamination**

**Existing Conditions:** Severna Park, like many communities, has suffered from some poor practices that led to chemical contamination of land and water resources in the past. Although new laws and regulations address many of these problems, risk of contamination due to human error and accidents can never be completely eliminated.

**Goal:** To effectively communicate to the citizens of Severna Park the importance of maintaining a hazardous materials emergency response capability, and to enhance public education regarding the proper use, storage and disposal of hazardous materials throughout the community.

**Recommendations:**

- Provide opportunities for public recognition of the significant value of Severna Park’s existing hazardous materials (Hazmat) equipment and personnel located at the Jones Station Fire House.
- Continue to support training of emergency medical service (EMS) fire personnel.
- Enhance education on the disposal of household hazardous waste; include in educational materials the reasons why these wastes need to be disposed of properly, where they may be taken for disposal, and suggestions for substituting other products that can perform the same function but that are environmentally safer.
- Promote awareness of the need to maintain and in some cases, replace and remediate any negative environmental effects of aging tanks used to store oil or related petroleum-based substances.

**13. Environmental Education Day**

**Existing Conditions:** Enforcement of environmental laws and regulations can only accomplish a portion of the work needed to protect and enhance Severna Park’s “green” environment. Of equal importance are the voluntary steps members of the community will take when encouraged to act appropriately on behalf of the greater community through meaningful environmental education programs.

**Goal:** To enhance opportunities for “community conscious” environmental education throughout Severna Park.

**Recommendations:**

- Recognize critical role education plays in developing public understanding of and support for environmental programs.
- Work on ways to further enhance community-based environmental education programs:
  - within the public schools;
  - within Anne Arundel Community College;
  - within parks (e.g. Kinder Park)
  - through use of cable and the Internet
  - through the distribution of newsletters, brochures, other printed material

**14. Environmental Equity**

**Existing Conditions:** It is not known to what extent, if any, past land practices have had a disproportionate negative impact on the quality of life of particular groups within the Severna Park community (e.g. racial and ethnic minorities).

**Goal:** To determine to what extent environmental equity (also referred to as environmental justice) is an issue within Severna Park and to address this issue in the most appropriate way possible.

**Recommendations:**

- Adopt policies that determine or guide land use development within Severna Park (and the County at large) that is based on the concept of environmental equity.
- Develop ways to implement corrective actions where necessary.

## 15. Visual Aesthetics

**Existing Conditions:** There is strong community support for improving Severna Park’s aesthetic quality particularly along Ritchie Highway and within major commercial areas.

**Goal:** To develop and implement an effective program to enhance the visual appearance within Severna Park by addressing the corridor along Ritchie Highway and the major commercial areas within the community.

**Recommendations:**

- Strongly encourage the County to develop an interpretive guide to the existing County-wide sign ordinance. The County shall publish and distribute the guide to the public upon request.
- Support County efforts to identify and maintain several designs of signs that a residential, commercial or public organization is encouraged to choose from that would serve to identify the entity served by the sign(s) as being located in Severna Park. (Note: Choice of sign design is to be left up to the property owner provided signage meets requirements of existing County ordinance.)
- Ensure that local businesses are fully aware of the existence of the current County sign ordinance as well as the set of community-specific voluntary design options.
- Enforce the existing sign ordinance.
- Explore and promote incentive-based approaches to changing existing signage along Ritchie Highway such as writing to major corporations that are known to have adopted the concept of smaller, “logo” style signs in place of the traditional large signs along roadways. The purpose would

be to solicit their support and ask for their suggestions for initiating such a practice in Severna Park. Taking a “command-and-control” approach, especially with local, small businesses is not viewed as desirable or likely to be successful.

- Foster voluntary adoption of a range of different types of aesthetic improvements by merchants within the community (e.g. landscaping, building facades, signs).

## **16. Environmentally Sound Enhancement To Severna Park’s Commercial Centers**

**Existing Conditions:** The Severna Park planning process has devoted significant effort aimed at addressing the long-standing issue of enhancing the commercial core of the community (i.e. the Severna Park Mall/Park Plaza/Severna Village Shopping Center/Festival Mall area). There is support for the concept of a “village center” that would be implemented through a new zoning mechanism. It is intended that this approach may be transferable to other nodes of commercial activity throughout the planning area. It is important that this be used as an opportunity to explore ways to go beyond minimum compliance with environmental requirements; i.e. such a zone should offer flexibility to site plan designers and builders who are willing to work toward a “greener” concept in community commercial design than exists today. In addition, this effort should be viewed as an opportunity to address community transportation needs in innovative ways that will benefit the environment.

**Goals:** To provide a regulatory framework that encourages the voluntary adoption of creative, innovative approaches to commercial land development so as to maximize environmental protection and enhancement within major commercial centers of Severna Park. To incorporate provisions for a community-based transit system to shuttle people from Severna Park neighborhoods to these “village centers.”

### **Recommendations:**

- Develop a pilot program for a community-based shuttle (e.g. trolley) service that has goals of reducing traffic congestion and automotive emissions while meeting people’s needs within the community. Use the existing underutilized “park and ride” lot at Arundel Beach and Leelyn Roads as one of the bases of operation of the service.
- Encourage redevelopment approaches that maximize the use of environmental elements such as “rain gardens” and low impact construction techniques.

## **17. Historic and Archaeological Resources**

**Goal:** Encourage preservation of archaeological and historic sites by increasing County resources.

### **Recommendations:**

- Strengthen existing County codes and regulations to protect historic and archaeological resources, including scenic and historic roads.
- Protect historic sites and structures by adding them to the Maryland Inventory of Historic Properties and the National Register of Historic Places.
- Protect archaeological sites by adding them to the Maryland Archaeological Site Survey and the National Register of Historic Places.
- Establish incentive programs, including tax deductions or credits, grant and loan funds, and technical assistance for property owners that protect and preserve significant historic and archaeological resources.

## **18. Scenic and Historic Roads**

**Goal:** Establish and implement a County-wide Scenic and Historic Roads Program.

### **Recommendations:**

- Encourage the County Executive to implement, as a priority project, the County-wide program recommended by the Scenic and Historic Roads Commission and by the County Council.
- Incorporate the regulatory tools necessary to fully implement the scenic and historic roads program, as set forth in Resolution No. 45-97, into the zoning laws, the subdivision laws, the transportation master plan, the road design manual, the landscape manual, the forest conservation ordinance, and other land use laws.
- Establish specific design guidelines and protective buffers for scenic and historic roads in the Severna Park Small Planning Area.
- Establish a specific design review and approval process for development adjacent to or impacting scenic and historic roads.

- Expand the existing inventory of scenic and historic roads in the Severna Park Area to include roads in the eastern and far western portions of the Planning Area.