

## VII. ENVIRONMENTAL AND CULTURAL RESOURCES

### Existing Conditions

#### *Streams and Watersheds Overview*

The Pasadena /Marley Neck Small Planning Area (SPA) is situated within two Anne Arundel County watersheds, the Patapsco River Watershed and the Magothy River Watershed (see Map 7). The majority of the planning area (approximately 80%) is within the Patapsco River Watershed, with 20% draining to the Magothy 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. As discussed below, the County has monitored water quality in a few of the subwatersheds that comprise this planning area. Currently, no County monitoring activities are underway in the SPA due to budgetary constraints.

The County's General Development Plan (Anne Arundel County 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 were 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. While watershed management plans are prescribed for these basins, the Magothy and Patapsco watersheds are not identified as high priority for completion (AADPW 1995).

As part of an effort to characterize the health of the State's streams, the Maryland Department of Natural Resource's Maryland Biological Stream Survey (MBSS) examines stream habitat, insect populations, and fish populations. By comparing measurements made in study streams to conditions measured in pristine reference streams, the overall level of stream health can be determined. In the SPA, measurements were made in both the Magothy and Patapsco Rivers. Overall, stream habitat ranged from good to very poor. Stream dwelling insect populations were mostly very poor or poor while fish populations were mostly very poor. (Millard et al. 2001). In general, for both major watersheds making up this SPA, biological communities were depressed relative to stream habitat quality, which indicates that watershed water quality parameters are impacting biological communities.

#### **Patapsco River Tributaries:**

Major tributaries to the Patapsco River include Marley Creek, Curtis Creek, Swan Creek, Cox Creek, Rock Creek, and Stoney Creek. Approximately 26 miles of stream channel draining this SPA are part of the Patapsco River. Combined, the drainage areas of these tributaries make up approximately 80% of the SPA. Biological condition and water quality data have been collected for Marley Creek and Rock Creek. These two creeks are discussed below.

**Map 7 Environmental Features - Page 49**

A watershed assessment was performed in Marley Creek in association with dredging activities that occurred in the mid-1990s (Greenhorne and O'Mara 1992). The purpose of the assessment was to understand pollutant loadings from the basin, identify measures that could improve water quality and stream habitat, and develop plans for the implementation of various corrective measures that might be prescribed based upon the outcome of the assessment. As part of this assessment, available data on water quality and biological conditions were analyzed. Overall, water quality in the estuarine portion of the river was judged fair to good while the freshwater streams were judged as moderately to severely degraded. Biological conditions, measured in the freshwater streams, were mostly fair to poor. Low diversity and high levels of pollutant tolerant organisms were observed. Using this assessment, several capital projects for stream restoration and stormwater management facilities were initiated.

In addition to the watershed assessment, the County performed water quality monitoring in Marley Creek from 1989 to 1996. During that time, water quality parameters for nearly all of the 16 parameters measured showed increases in pollutant loadings, with individual storm events frequently exceeding State and Federal water quality criteria where they exist (Baudler 1996). Monitoring in this subwatershed was done in partial fulfillment of permit obligations associated with dredging Marley Creek. Consequently, no regular monitoring occurs at this time as these permit obligations have been fulfilled.

Numerous water quality problems have been documented in the Rock Creek watershed. The County ran a water quality monitoring station in Rock Creek from late 1987 through 1992 (Curtis 1993). During the five years of sampling, high levels of suspended solids were observed coming from the watershed. In addition, large amounts of organic, oxygen-consuming materials (measured as biochemical oxygen demand and chemical oxygen demand) were also observed. Numerous fish kills and odor events were also reported during the 1980s and 1990s. This type of water quality impact is consistent with the observations of local residents documenting poor water quality conditions within the estuarine portion of the basin (see Dooley and Schepleng 1991). In response to these problems, the County installed an aerator to increase dissolved oxygen levels in the creek and also aggressively dredged highly enriched sediments in an effort to improve water quality conditions within this creek. Curtis (1993) reported some improvement following these measures, but no regular monitoring occurs at this time to determine if long-term trends indicate significant improvements in water quality.

Finally, Maryland Save Our Streams performed a qualitative assessment in the Cox, Nabbs, and Stoney Creeks watersheds. Crews of volunteers performed visual assessments of these creeks. Numerous stormdrain outfalls, areas of bank erosion, sediment deposits, and trash dumps were observed along with other problems. The Department of Public Works and the Office of Planning and Zoning investigated many of the problems identified and took corrective action for those on public property and ordered offending land owners or developers to correct problems on private property (MD SOS 1992).

**Magothy River Tributaries:**

There are several unnamed tributaries of the Magothy River found in the southern portion of the SPA, which comprise part of the north central headwaters of the Magothy River. Approximately 8 miles of stream channel are found in these basins. Combined, the drainage areas of these tributaries make up approximately 20% of the SPA.

The Magothy River has active citizen watershed organizations. The Magothy River Association actively promotes 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.

During the late 1980s to early 1990s, several studies were undertaken in the some of the small streams and rivers located in the SPA. 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 (AADPW 1987).

***Stormwater Management***

Stormwater Management includes both water quality and water quantity control. Water quantity controls reduce the amount of downstream erosion and flood potential by minimizing the flow rate and amount of stormwater runoff from impervious areas. Water quality controls improve the quality of the watershed by reducing pollutant loadings. The Anne Arundel County Code states the following as the purpose of Stormwater Management:

1. Protect, maintain, promote and enhance the public health, safety and general welfare through the management of stormwater,
2. Protect public and private property from damage,
3. Reduce the adverse effects of development,
4. Reduce the effects of land use changes on stream channel erosion,
5. Preserve and enhance the environmental quality of streams and stream valleys,
6. Minimize adverse impacts on water quality and conserve plant, fish and wildlife habitat,
7. Reduce flooding,
8. Maintain after development, as nearly as possible, the pre-development runoff characteristics, and
9. Establish the minimum requirements and procedures to control the adverse impacts associated with increased stormwater runoff.

Anne Arundel County adopted *Stormwater Management Practices and Procedures Manual* in September 2001. This manual is a comprehensive tool for developers, consultants, and County Staff to use during the development process to provide appropriate stormwater management techniques to adequately address State and County stormwater management regulations.

***Stream Buffers***

As part of the *Stormwater Management Practices and Procedures Manual*, stream buffer requirements were formed for new development. Effective July 1, 2001, most new

development that occurs on undeveloped land in the County must delineate minimum stream buffers on non-tidal streams and rivers. Stream buffers must be placed on both sides of all perennial and intermittent streams on a development site. These streams are classified by use and have buffer requirements based on their use and adjacent slope range. These minimum requirements can be expanded if floodplains, wetlands, or steep slopes extend beyond the minimum buffer line.

In the Pasadena/ Marley Neck Small Area, most of the streams are classified as first order (Class I) streams. These streams are headwater streams that often originate from springs and/or seeps and do not have tributaries). The remaining streams are classified as second order (Class II) streams. These streams are where two first order streams have joined together to form a larger stream. For additional details, the Anne Arundel County Office of Planning and Zoning should be consulted. For more information on Stream Use Classifications, visit [www.mde.state.md.us](http://www.mde.state.md.us).

### ***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 Patapsco and Magothy 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 Pasadena / Marley Neck Small Planning Area, all three development categories are represented. However, the IDA and LDA are the largest categories at 1509 acres and 1414 acres, respectively. The RCA

development area (1083 acres), indicating the more environmentally sensitive land is designated on Map 7. The development requirements for all three categories are described below:

**IDA:** These areas can be developed with high density 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 medium density housing (a maximum of four 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 requires that impervious surfaces be limited to 15 to 25% of the site, and that the 100-foot buffer be maintained. Moreover, development of LDA or RCA lands that are not forested includes a requirement to establish 15% of the site in forest.

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 works 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 100-year floodplains of streams in the SPA are delineated on the Map 7. 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. A total of 140 acres of 100-year floodplain is found in the SPA, with about 56% of the total located in the Magothy River basin. The County holds easements on approximately 40 acres of 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 Pasadena/Marley Neck Small Planning Area, approximately 37.5 acres of steep slope area exists. These areas are found in the southwest portion of the SPA, along the watershed boundary between the Marley and Stoney Creeks and the Magothy River tributaries.

### ***Wetlands***

Wetlands located in the Pasadena/Marley Neck Small Planning Area include both tidal and nontidal wetlands. A total of about 2.8% (~338 acres) of the planning area is comprised of wetlands. Most of these wetlands are within the Critical Area. Most (~83%) wetlands are forested, open water, or marsh types associated with tidal streams and rivers. The remainder (~17%) is open water or dominated by emergent herbaceous plants and is typically associated with coastal areas. This is likely to be an underestimate of the actual amount of wetlands found in this area as the tools used to determine wetland distribution can miss small, isolated systems. Additionally, soil types typically associated with wetlands occupy approximately 633 acres of the SPA, indicating that wetlands have been drained first for agricultural purposes and for development.

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.

Nontidal 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 nontidal wetlands used by the State and the Federal government. There are many types of nontidal wetlands, such as forested wetlands, scrub-shrub wetlands, and wet meadows to name a few. Nontidal 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 nontidal 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 propose to disturb nontidal 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). Additionally, the County recently passed legislation protecting bogs, a special type of wetland found in the County. Under this law, development activities are restricted in various buffer zones around the bogs and in the bogs themselves.

### ***Protected Lands***

Permanently protected lands found within the boundaries of this planning area consist of County parkland and open space associated with seven schools found in the SPA. The park facilities include Solleys Cove Park, Stoney Creek Park, Rock Creek Park, Sunset Park, Highpoint Park, Tick Neck Park, Havenwood Park, Lake Waterford Park, and the Jacobsville Park. 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 Department of Natural Resources 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 Marley Creek near Tanyard Cove. Additionally, within this Small Planning Area, there are several protected habitats of threatened and endangered species. These protected habitats include tracts located near Marley Neck Boulevard and Powerlines Road, Solley Road and Nabbs Creek Road, Solley Road and Powhatan Beach Road, the Magothy River mainstem above Lake Waterford, MD 100 and Old Mill Road north of the Magothy River, and the Patapsco River shoreline from Hawkins Point to the southern end of Rivera.

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

Within the SPA, approximately 5000 acres are forested. This forested land is found mostly in the north and western portion of the SPA, with moderate and small patches found in the southern portion near the streams of the Magothy. Currently, most of this land is classified as vacant land and is zoned for residential and industrial usage. Only about 1% of vacant land found in this SPA is currently zoned Open Space.

Acre for acre, forests are the most beneficial means 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 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, receives 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:

1. A minimum acreage requirement of 50 contiguous acres used primarily for agricultural production;
2. 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;
3. The proposed property must be located outside of Water and Sewer Categories 1 - Existing or Under Construction, 2 - Capital Facilities Area, and 3 - Planned Service Area as indicated by the Master Plan for Water Supply and Sewerage Systems; and
4. 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:

1. Land to be included should contain at least 10 contiguous acres of woodlands per landowner;
2. A minimum of 25 acres, contiguous in nature and classified as a Woodland District, is required for consideration of an easement offering;
3. 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;
4. The current zoning of the property must be Residential Agricultural (RA), Residential Low Density (RLD), or Open Space (OS); and
5. 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.

### **Greenways**

The purpose of the County's Greenways Master Plan (2002) is to create an interconnected network of greenways in Anne Arundel County. The network will protect ecologically valuable lands for present and future generations and provide open space, recreational and transportation benefits; and opportunities for people.

The benefits of the Greenways Network are:

1. Enhance the beauty of the County's landscape by reducing the fragmenting effects of development and preserving valuable open space;
2. Provide adequate habitat to support healthy populations of a diversity of naturally occurring plant and animal species;
3. Help guide the location of development so that negative effects on ecologically valuable lands are minimized;
4. Link communities to a Countywide network of open space;
5. Provide off-road transportation opportunities;
6. Improve water and air quality;
7. Improve the economy by maintaining and increasing property values and by attracting visitors;
8. Encourage the ethic of stewardship of the land in the County; and
9. Help achieve the recommendations of the County, regional and state plans and programs.

During the time of the planning process for the Greenways Master Plan, only 12 of the 16 Small Area Plans had been initiated. The Small Area Planning process for the Pasadena/Marley Neck, Lake Shore, Glen Burnie and Brooklyn Park Small Areas began after the Greenways Master planning process. The map that was adopted with the Greenways Master Plan includes broad areas for study within the Pasadena/Marley Neck Small Planning Area. The Pasadena/Marley Neck Small Area Plan Committee has reviewed this map and made recommendations for appropriate modifications that will enhance the integrity of the program. (See Map 9).

### ***Cultural 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 to our past;
3. Distinctive characteristics of a type or period of architecture, method of construction or the work of a master architect; high architectural 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 Historic Trust or the National Trust for Historic Preservation. In addition to the National Historic Preservation Act, historic and archeological resources are protected by Anne Arundel County Code.

There are several historic resources located in the Pasadena/Marley Neck Small Area, including Hancock's Resolution, which is on the National Historic Register. Some of these are discussed in more detail in the Community History section of this Plan. Table 19 lists historic resources that have been listed on the Maryland Inventory of Historic Properties due to their architectural or historical significance. The site locations are shown on Map 8.

### **Archaeological Resources**

In addition to the documented historic structures, 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 non-renewable piece of cultural heritage. The assessment of archaeological potential for unknown sites is generally based on environmental characteristics such as topography, proximity to potable water and transportation routes, and through review of historic maps and documents. 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 that 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. The shoreline and tributaries of Marley Creek, Curtis Creek, Swan Creek, Cox Creek, Rock Creek and Stoney Creek have a high potential for pre-historic archaeological resources.

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, though more than 40 prehistoric and historic archaeological sites have been identified within the boundaries of the Pasadena/Marley Neck Small Area Plan.

Along with Federal and State laws protecting archeological resources, the County Code also protects such sites during the review of residential and commercial subdivisions, critical area allocations and zoning change requests.

| <b>Table 19. Pasadena/Marley Neck Historic Resources</b> |  |  |
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| <b>Site Number</b>                                       | <b>Name</b>  | <b>Location</b>                            |
| AA0128   | House on Mountain Road   | 2601 Mountain Road, Armiger                |
| AA0728   | Dunbar House/Armitage House  | 8426 Miramar Road, Riviera Beach           |
| AA0729   | Stephen Gray Farm  | 1000 Elizabeth Landing Road, Riviera Beach |
| AA0730   | Locust Lodge/Thomas Farm   | 184 Meadow Road, Riviera Beach             |
| AA783  | U.S. Coast Guard Yard  | U.S. Coast Guard Yard, Curtis Bay          |
| AA784-<br>AA801  | Storage Sheds 21, 23-26, 38-39, 41, 43-46, 52, 57; Small Boats, Mechanical Outfitting #16; Boat Building Section #5; Public Works Section #12; Power Plant #15; Machine Shop #11; CPO/Enlisted Men's Clubs, Switchboard & Warehouse #3; Woodworking Shop/Graphics & Reproduction/Photo Lab #4; Mobile Equipment Maintenance Section #66; Mechanical Shop/Mold Loft #58; Pipe Section/Materials Handling (Civilian Cafeteria #8); Baltimore Group #70; Small Arms Storage #72; Administration Building #1; Fleet Hall #33; Lecture Hall #14; Railroad Siding Platform & Shed #89; and Turntable and Rail Shipways #61 | U.S. Coast Guard Yard, Curtis Bay          |
| AA0872   | Chestnut Hill Farm (site)  | Solley Road, Solley                        |
| AA0930   | Thomas Cemetery  | Main Ave/Roland Rd, Riviera Beach          |
| AA0982   | Thomas Solley Farm   | Marley Neck Road, Solley                   |
| AA1043   | Magothy United Methodist Church  | Mountain Road, Jacobsville                 |
| AA1044   | Mt. Zion Methodist Church  | Artic Drive, Jacobsville                   |
| AA1045   | Scholtz-Listman House  | Magothy Bridge Road, Pasadena              |
| AA1083   | Dobrody Farm Road House  | Dobrody Farm Road, Marley                  |
| AA1084   | Solley Methodist Church Cemetery   | Marley Neck Road, Marley                   |
| AA1085   | Marley Neck School   | Marley Neck Road, Marley                   |
| AA2048   | Schramm Farm   | Schramm's Road, Pasadena                   |
| AA2066   | Halls Memorial Church Hall   | Solley Road, Solley                        |
| AA2129-<br>AA2156  | U. S. Coast Guard at Curtis Bay  | U.S. Coast Guard Yard, Curtis Bay          |

**Map 8 Historic Resources Page 61**

### **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; and
3. Implementation of measures for preservation, protection and recognition based on the classification of the road.

Currently, a scenic and historic roads program is under development and the County has adopted an interim inventory of scenic and historic roads. The roads in the County have been classified as either Category 1: Preservation; Category 2: Protection; or Category 3: Recognition.

A portion of Mountain Road between Long Point Road and Gibson Island is designated as scenic road and is classified in Category 2.

### **Assets/Issues/Goals/Recommendations**

#### ***Assets/Issues 1:***

Water quality is one of the top concerns raised by the community. The main issues are runoff from the land and the pollutant load going into the Patapsco and Magothy Rivers and the Chesapeake Bay, shoreline erosion, and toxins that have resulted from years of heavy industrial polluters in the area.

***Goal: Improve surface water quality and improve stormwater management to reduce and, where possible, eliminate the negative environmental impacts of stormwater runoff.***

#### ***Recommendations:***

1. Complete watershed management plans for the Patapsco and Magothy Rivers. Broaden the use of existing technologies, such as the Watershed Management Tool (WMT), to evaluate how changes in land use, zoning and best management practices, and other watershed conditions affect the watersheds, subwatersheds, and tributaries.
2. Implement a watershed approach to stormwater management, land use planning, development, permitting and Capital Budget and 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.
3. Examine buffer conditions along stream channels and develop programs for improvement if necessary. Implement, where possible, a minimum 100-foot riparian buffer to all tributary streams to minimize impacts of stormwater runoff.
4. The County should monitor water quality to determine the extent of pollution and assess whether improvements are occurring.

5. Ensure all engineering design for stormwater management facilities is site appropriate and strictly adheres to the Maryland Stormwater Design Manual or the County's Stormwater Design Manual, whichever is more stringent.
6. Develop incentive packages for private landowners who voluntarily improve the buffer system.
7. 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.
8. Accelerate the County's ongoing effort to comprehensively identify, analyze and, where needed, retrofit stormwater management problem areas. Aggressively pursue incentive-based approaches (e.g. State grant funds) to achieve retrofitting of areas in need of improved stormwater management. Include appropriate funding for capital improvements to be completed within a ten-year period.
9. Establish a comprehensive stormwater infrastructure preventative maintenance and management program that reduces environmental degradation and extends infrastructure useful life.
10. Develop a citizens monitoring network to assist the County in identifying water quality problems in the area.
11. 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.
12. Ensure that all new development meets water discharge standards for quantity and quality, and is developed in such a way as to ensure maximum utilization of land, preservation of sensitive areas, and to the extent possible the attributes of green development and smart growth.
13. The County should develop a detailed education program for those living in the most sensitive area (The Chesapeake Bay Critical Area) and the area in general which would discourage polluting practices including excessive yard fertilizing, herbicides and soil stabilization practices. This education program should be in cooperation with local citizen groups, public and private schools, park and recreation programs, and the use of the Internet.
14. Expand the Emergent Grasses Program to reach more homeowners through increased publicity and education, and increased availability of native wetland plants for re-vegetation of shorelines. Establish a program to support oyster gardening by waterfront homeowners through subsidy of training programs, educational materials and supplies. To maximize participation, coordinate the Emergent Grasses Program and the Oyster

Gardening Program through waterfront community organizations, the Greater Pasadena Council and the Chesapeake Bay Foundation.

15. Develop and implement, on a continuing basis, a program to stencil storm drains to enhance community awareness that these storm drains direct runoff to tributaries of the Chesapeake Bay.
16. Survey the shoreline and identify sources of bank erosion. Develop a proactive program of working with landowners to identify appropriate stabilization techniques and direct them to existing funding sources.
17. The County should work closely with the State and Federal government to get a complete understanding of existing pollution sources, toxic areas including Brownfield's and other areas that may need to be investigated.
18. Over the next twenty years, the Office of Planning and Zoning and the Health Department should develop a comprehensive program that clearly identifies affected areas and a program of mitigation, reclamation, restoration and reuse that will result in the removal of all industrial and toxic pollution in the area. This program will be costly and should be paid for by the polluters in cooperation with available funding sources from the State and Federal government.

The County, in cooperation with the local, State and Federal elected officials, should make this one of the highest priorities for legislative action. In addition, the cooperation and support of the elected officials for Baltimore County and Baltimore City should be encouraged to join us to ensure that all industrial pollution into the Chesapeake Bay and its tributaries is eliminated.

***Assets/Issues 2:***

Although located in one of the County's priority areas for growth, the Pasadena/Marley Neck Small Area has large tracts of vacant, wooded land. The area is mostly developed at R1, R2 and R5 densities. However, approximately 36% of the area is still vacant, most of which is forested land currently zoned for industrial use. Open space, green areas and forested land were some of the environmental assets identified by the community. With a significant amount of developable industrial land still remaining in the area, protection of these was identified as an item of concern.

There are adequate opportunities to preserve forest cover and open space that will complement the Greenway Master Plan and provide recreational resources for the public. This will be done in ways that are sensitive to the rights of property owners.

***Goal: Minimize the removal of trees during the development of land in order to maintain as much of the existing wooded areas as possible. Increase the amount of open space and green areas within the Small Area.***

**Recommendations:**

1. Review the Greenways Master Plan and make recommendations that better tailors the plan to the Pasadena/Marley Neck Small Planning Area.
2. Identify areas that need to be preserved for active and passive recreation and open space. Work with developers to retain them, as projects are undertaken or provide adequate funding for their purchase through the State's Program Open Space.
3. Identify areas for and expand active recreational opportunities including ballfields, equestrian trails, tennis courts and public water access for boat ramps and fishing piers (e.g. Fort Smallwood Park and Carbide Road). The area north of Wishing Rock Road, south and east of MD 100 and west of Festival Shopping Center, is a desired location for recreational uses, particularly ballfields.
4. Work with the State and private groups to identify and preserve large tracts of undeveloped land as open space. Purchase, easements, and Transfer of Development Rights (TDR) should be actively used.
5. The Office of Environmental and Cultural Resources shall be charged with developing and implementing an urban forestry plan that will work with landowners in developed areas to augment their property with additional plantings of trees and ground cover.

The County will develop gap funding programs to assist with plantings in areas where needs are identified. Programmatic changes to allow the use of Critical Areas Reforestation funds and Maryland Forest Conservation funds in areas where tree enhancement will provide benefits to the environment should be pursued.

**Assets/Issues 3:**

Air quality is a prime concern of the residents in the area. Much of the problem is created by traffic and other sources located outside of the immediate planning area. Brandon Shores and Wagner electrical generating stations create a substantial amount of airborne pollution including fly ash.

***Goal: Adopt proactive policies and measures to reduce air pollution in the region and improve air quality.***

**Recommendations:**

1. Work with existing industries to reduce and eliminate sources of air pollutants.
2. Improve the existing roadway network to reduce travel times and make better connections to the MD 695 (Baltimore Beltway).
3. The County should develop strategies to reduce emissions, which affect air quality. Strategies might include:
  - a. Accelerate the completion and implementation of bike and pedestrian facilities.

- b. Promote the use of telecommuting by County, State and Federal employees. Work with the State to set up central centers for use by public agencies.
  - c. Promote compressed workweeks for County, State and Federal workers.
  - d. Adopt land use and transportation plans that encourage the use of public transportation and carpooling in order to reduce automobile traffic and ozone levels.
  - e. Promote alternatives to single occupant vehicles. Ridesharing, car-pooling and modes of public transportation should all be investigated, promoted and utilized.
  - f. The County should set the example for fuel efficiency by purchasing the most efficient vehicles possible, and ones that can utilize more cost effective types of fuels.
  - g. The County should set the example for the use of green technology and develop regulations that require future development to utilize these principals if at all practical.
  - h. Encourage the maximum utilization of developed areas (infill – smart growth), which will reduce the need for expanded development areas and new roadways.
  - i. Work with jurisdictions in the Metropolitan Baltimore Air Quality Control Region to establish and implement regional policies and measures to reduce ozone levels in the non-attainment areas.
  - j. Encourage industries to reduce diesel exhaust and limit emissions from industrial areas. Use of specific roadways for trucks should be encouraged.
4. Implement and maintain a continuous air quality monitoring system.

***Assets/Issues 4:***

The historic aspects of the Pasadena/Marley Neck community are important windows into the past and are worthy of being recognized and promoted as important community resources. They should be protected, preserved to the extent possible and used to promote the area.

***Goal: Protect and preserve the historic assets within the Pasadena/Marley Neck Small Area.***

***Recommendations:***

1. Use the Anne Arundel County Trust for Preservation (A.C.T.) Historical Marker Program to recognize cultural resources and provide adequate funding to install roadside markers at all historic sites Countywide.
2. A historic plaque in the location of the Chestnut Hill Cove landing site should be posted.
3. Hancock's Resolution could be an important tourist attraction. It should be further developed in a sensitive way to attract more tourists and water access provided to allow boaters the ability to visit.

***Assets/Issues 5.***

The Pasadena/Marley Neck Small Area Planning Committee expressed concern over the size and placement of the Greenways in the Small Area. Concerns raised include:

- That the area where the Greenway is proposed is shown as an overlay on an area, which is currently zoned for development.
- That the Greenway may adversely impact the development envelope resulting in a reduction in the yield of residential units and commercial square footage.

The County recognizes these issues raised and has developed the following goals and recommendations language, which will clarify the original intent of the Greenways Master Plan:

***Goal: Clarify the language associated with the Greenways Plan to ensure that property owners are protected from mandatory reductions in building density.***

***Recommendations:***

1. Amend the Greenways Master Plan to include the following language: It is not the intent of the Greenways Master Plan to reduce the total number of lots or commercial square footage normally allowed, but to better analyze the building envelope and provide for an arrangement of units/buildings that preserve the fragile portions of the property and make greenway connections wherever possible.
2. The areas identified on the Countywide Greenways map shall be referenced in the Pasadena/Marley Neck Small Area Plan as potential greenways, and are not subject to a County-mandated reduction in density or commercial square footage for the purpose of implementing a greenway corridor or hub.
3. Any Greenway, which is obtained or reserved, will be at the joint agreement of the landowner/developer and the County during the development review and approval process.
4. A revised Greenway map for the Pasadena/Marley Neck Small Area is included in this Plan. The map recommends revisions in two areas where develop already exists and which crosses a road in an inappropriate location, and the addition of other areas that should be considered for greenways that was not originally included on the Greenways map.

**MAP 9 Potential Greenway Map page 68**

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