

THE ST. MARY’S COUNTY COMPREHENSIVE PLAN

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Chapter 5: SENSITIVE AREAS PROTECTION ELEMENT

5.1 INTRODUCTION

The sensitive areas in St. Mary's County are largely defined by the intersections between the land and water. Waters flowing through the upland into stream buffers, streams, wetlands and floodplain converge to form the County's five primary tidal tributaries—the Patuxent River to the northeast and the Wicomico River, St. Clements Bay, Breton Bay, and the St. Mary's River which flow into the Potomac River to the southwest or flow directly via small streams into the Chesapeake Bay. Water that infiltrates into the ground recharges shallow aquifers and in areas where the water table is at and near the surface provides the base flow for springs, more than 19,800 acres of nontidal wetlands and approximately 2,000 miles of intermittent and perennial streams. Water that runs off the land scours erodible soils creating deeply incised stream valleys and side slopes, concentrates in the valleys, and periodically overflows into nontidal floodplains where the sediments settle out to form rich bottomland forests and wetlands. Vegetated riparian buffers and tidal wetlands capture sediments and pollution, slow, soften or resist the impact of waves, and provide important and diverse habitats. At the head of tide, fresh water mixes with salt water of the tidal tributaries and the Chesapeake Bay, creating diverse habitats for plants and animals. The coastline of the County is diverse, ranging from steep bluffs to low eroding banks, from fringe marshes to wide sandy beaches and dunes, from wide tidal flats and winding tidal guts through marshes and estuaries. As the Bay's waters ebb and flood with the tides and waves formed by wind and storms, the 490 miles of shoreline is being continually worn down, moved, and rebuilt. Because much of the unique character of St. Mary's County is defined by her natural resources, protection of those resources for their value in defining the community's character and quality of life as we accommodate the needs of the people who live, work, and play here is a critical goal of this plan.

Farming the land, harvesting mature forests and allowing them to regenerate to harvest again, mining sand and gravel deposited over thousands of years, and fishing the creeks and bays within the County are economic activities derived from St. Mary's County's natural landscape. Natural resources--farm, forest, sand and gravel deposits, and living resources--have provided an economic base for residents which, although diminished from historical levels, remain important components of the economy to be accommodated within goals for protection of sensitive areas. The United States Department of Agriculture (USDA) agricultural census for 1997 indicates that 71,920 acres of land was used for agricultural production and for 2002 that the land in farm production had decreased to 68,153 acres. The 2007 land use analysis from the MDP shows approximately 54,800 acres of agriculture (including agricultural lands on large residential lots). Due in large part to the long history of the County as a farm dominated community, forest resources occupy areas that were too wet or too steep to plow. The 2007 land use analysis from Maryland Department of Planning (MDP) shows approximately 121,400 acres of forest (including forest on large residential lots). After the Second World War, as most residents shifted away from farming as a principal economic activity, many fields that had been left fallow converted to second or third growth forest cover. Steep slopes, floodplains, forest, and farms that had remained largely undisturbed have been impacted and fragmented by the demand for residential development that escalated in the 1980s and that continues to put development pressure on important resource lands and resource based industries. Managing the development pressure and the actions and activities associated with development that negatively impact continuation and viability of these resource based industries is an important goal of this plan element.

Sensitive areas provide ecosystem and economically valuable environmental services which cannot be inexpensively or effectively replaced. They also provide a diverse and attractive landscape which contributes to the citizen and visitors positive perceptions of the County and its quality of life. Streams and their buffers provide the primary transport system for stormwater and, if managed poorly, they become primary conduits to transport pollution – heavy metals, oils, chemicals, trash from urbanized areas, nutrients, bacteria, pesticides and herbicides from farms and lawns – into the Bay. When managed well, streams and their buffers capture, reduce, and process pollutants, provide water supply functions, and provide spawning areas for recreational and commercial fish stock. Interconnected stream corridors provide diverse habitats that allow for migration of wildlife to maintain healthy animal populations, and opportunities for outdoor recreation. Wetlands protect water quality, infiltrate, slow and filter runoff, help control and reduce pollution and erosion. Floodplains and wetlands are important in the maintenance of groundwater supplies and water purification. Nontidal wetlands and estuarine resources provide vital habitat and maintain water quality for the fish, shell fish and crustaceans which are also critical components of the County’s character, culture, history and identity. Marshes, fringe wetlands and submerged grass beds stabilize sediments and dampen impacts from storms to reduce loss of upland property, and maintain water clarity. Large forest blocks, riparian forest corridors, nontidal and tidal floodplains and nontidal and tidal wetlands provide habitat for terrestrial plants, birds and animals. These foster opportunities for recreation and discovery for the public, and provide aesthetics that increase property values and are important factors in perceptions of the rural character and quality of life in the County. Forest conservation is important for protecting water supply, aiding recharge of aquifers, and infiltrating stormwater runoff. Assuring the continued viability of sensitive areas to provide their ecosystem and environmental service functions and for their contributions to the beauty and diversity of the landscape is also an important goal of this plan.

Protection of many sensitive areas, maintenance and improvement of water quality and restoration of degraded sensitive resources is mandated by State and Federal laws because of the benefits the resources provide to the community as a whole. The costs for restoration of resources typically far exceed the costs for protection and enhancement of resources. Some sensitive resources, particularly habitats of rare, threatened and endangered species, are irreplaceable if lost. It is fiscally responsible for the County to adequately protect resources, to avoid the public and private financial burden that restoration would impose, and to avoid the legal consequences of failing to meet State and Federal mandates. To the extent possible, this plan element assumes a doctrine that development activity should strive to achieve “No Adverse Impact” by addressing conservation of resources; protecting water quality and groundwater recharge; managing stormwater impacts; protecting wetlands and riparian zones; avoiding adverse effects or impacts due to increased flood volume, duration and velocities; preventing increased erosion and sedimentation; using environmentally neutral methods to manage and halt existing erosion; and by avoiding loss of habitats necessary for survival of vulnerable species. It is a goal of this plan to assure that protection of resources occurs in accordance with State and Federal laws, to assure that the regulations are fairly and equally applied to all lands and landowners, to assure that future loss and degradation of resources is avoided, to assure that costs for mitigation and restoration are fairly assessed to those responsible for and benefiting from the loss or degradation and to ensure that the action of any property owner, public or private, does not adversely impact the property, the rights, and the quality of life of others.

Finally, this plan element also recognizes a number of recommendations of the 2008 Climate Action Plan developed by the State of Maryland. While there may be no clear consensus about the causes of risks posed, it is clear that climate variability has measurably increased over the past 50 years. This region has experienced changes in average seasonal high and low temperatures, changes in seasonal precipitation averages, changes in the duration, frequency and

intensity of storm events, and observed one foot of sea level rise over the past 100 years. It is also clear that there are environmental risks associated with life and development in a coastal area. Conservation of resources can preserve options for future citizens to adapt and respond to future risks if sea levels continue to rise and storm frequency and intensity increases as predicted. Shifts in species composition of natural areas have occurred. USDA plant zone boundaries have shifted north. There has been increased presence of species of insects, fish and birds from warmer climates, and infestations have been observed of species of insects normally controlled by cold winter temperatures. Conservation of sensitive areas and concentration of development in the least vulnerable and least sensitive areas will maintain the ability for natural resources to adapt and to migrate inland while maintaining the ability of the County to focus its efforts (funds and resources) on protection, adaptation and response to hazards.

5.2 MEASURES OF SUCCESS FOR CONSERVATION OF SENSITIVE AREAS

St. Mary's County's sensitive areas conservation and land conservation methods are closely linked. The specific ordinance requirements for sensitive areas preservation were enacted in response to the goals and policies of the adopted 2002 Comprehensive Plan. The County maintains Geographic Information Systems (GIS) data layers that show the extent of the resources required to be protected under current regulations. That data was used to estimate the number of acres of these resources as noted below:

- 100 foot buffer for all perennial streams and for intermittent streams in the Critical Area (50,220 acres).
- Preservation of all nontidal wetlands mapped by DNR (19,800 acres) and a surrounding 25' buffer (5,600 acres).
- Conservation of 100-year floodplains and a surrounding 50 foot buffer (21,130 acres).
- Conservation of the 100 foot Critical Area Buffer (7,250 acres).
- Highly erodible soils (49, 221 acres total, of which only the areas within 300 feet of water features and wetlands are required by this plan to have mandatory protection for a net protected area of 35,262 acres).
- Hydric soils and soils with hydric inclusions (59, 423 acres, of which only the areas within 300 feet of water features and wetlands are proposed by this plan to have mandatory protection for a net protected area of 6,283 acres).
- Habitat protection areas and their buffers in accordance with DNR recommendations. (34,000 acres).

Because many of the features noted above overlap, the land area protected by the ordinance provisions is estimated to be 91,600 acres (approximately 40% of the land area in the County). The expansion of stream buffers and Critical Area buffers for steep slopes will protect additional acres.

In addition, significant forest retention and replacement is required by County ordinances adopted pursuant to State law. Retention of no less than 70% of existing forest (including developed woodland on small lots) is required in the Limited Development Area and Resource Conservation Area overlays within the Critical Area (estimated as 14,000 acres of large forest blocks). Retention outside of the Critical Area of no less than 50% of existing forest in the RPD and no less than 20% of forest in the RL (other zones of 40,000 acres or more require conservation but the amount was not analyzed). The clearing limits combined with the existing Critical Area requirement for mitigation to assure no-net-loss of forest and the anticipated no net loss policies that will be required by the State for all forests based on 2009 legislation will result in stabilizing forest coverage in the County.

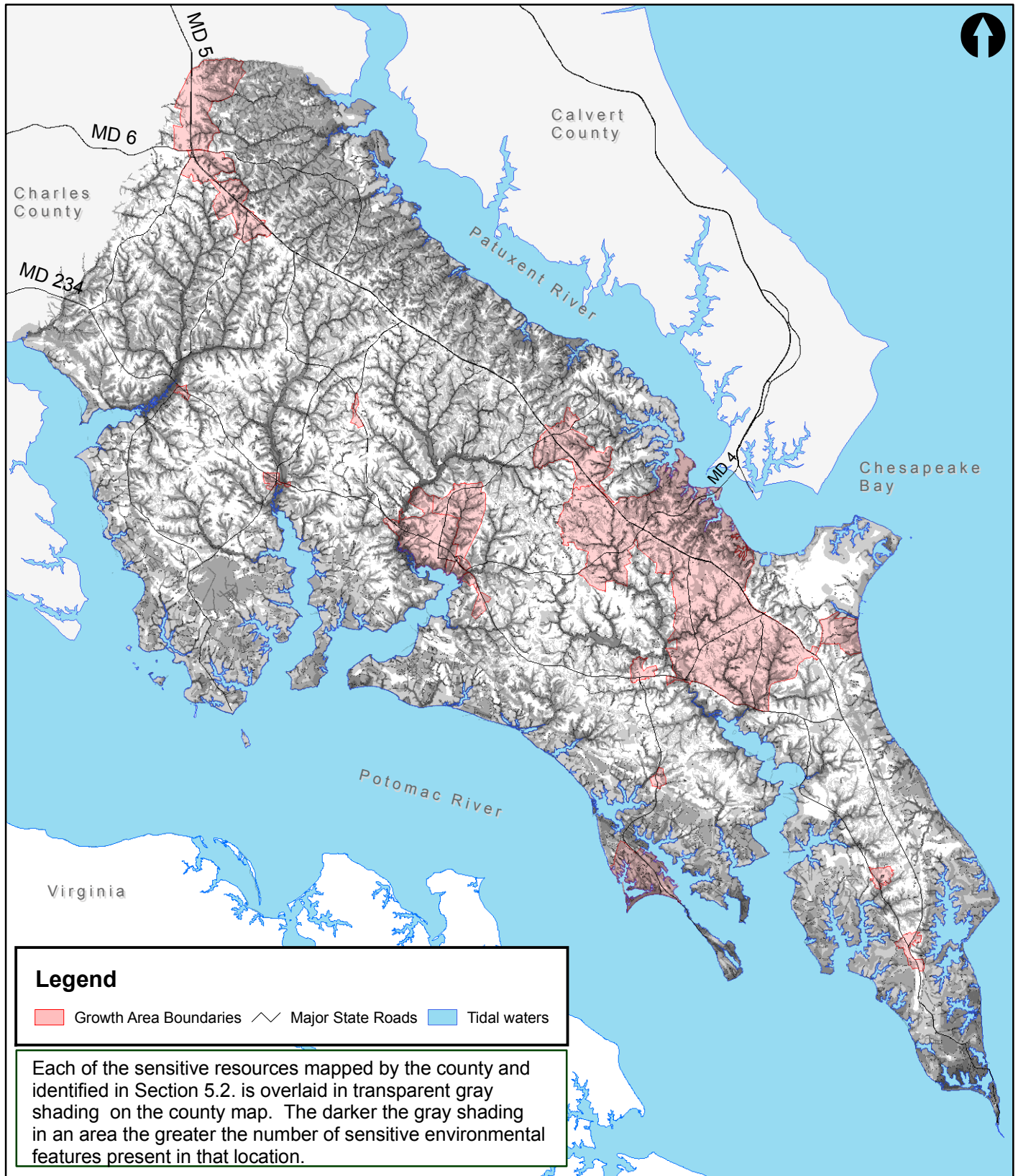
Figure 5.2.a is a composite map that overlays tidal wetlands and the Critical Area buffer, wetlands, wetland buffers, streams, stream buffers, floodplains, floodplain buffers, hydric soils, highly erodible soils, areas of steep slopes and designated habitat protection areas. Figure 5.2.b. shows significant natural habitats including riparian corridors (streams, wetlands, and adjacent buffers) and green infrastructure. Conservation of these natural habitats will be accomplished by the ordinance provisions that establish development standards to eliminate disturbances to the extent possible and minimize and mitigate unavoidable impacts to the resources.

In addition to the land protection offered by the Ordinance's resource protection standards, since 2002 the Rural Preservation District (RPD) and the Residential-Low Density (RL) zones have required conservation of 50% of the land area on sites developed with a major subdivision. Since the adoption of this regulation the County has found that, in the growth areas, the requirement to preserve such a large percentage of each parcel prevents the efficient use of land, undermines efforts to provide efficient infrastructure, undermines the ability for developers to achieve "Smart Growth" densities of 3.5 dwelling per acre and generally results in sprawl within the growth areas where compact development is desired. As a result this plan recommends that alternative regulations be developed for conservation of open space in the RL, RH, and RMX zones. These regulations need to assure that 1) important habitats and greenway corridors in growth areas are mapped and protected on each site; 2) that sufficient active and passive open areas are provided to accommodate required recreational amenities and green spaces per design guidelines; and 3) that the mandatory percentage requirement for open space preservation be reduced in exchange for affordable housing, workforce housing, contributions toward meeting adequate public facilities (beyond the minimums required for approval), construction of mapped greenway and bike trails, or for contributions of appropriately located land, facilities, or funds that meet identified County needs.

In 2008 the County's Transfer of Development Rights (TDR) program was revised. The program requires the lifting or use of on-site rights for any development in the RPD, effectively reducing the 1:5 density to approximately 1:9.8 for new lots in the rural area. The TDR program also allows increased density on individual RPD sites whose land characteristics can support the more intense development) to achieve up to 1 dwelling per three acres with the additional lots requiring double or triple the number of TDRs, effectively changing the density for these development to approximately 1:11. At the same time for any development creating more than 5 lots the lots must be clustered on 50% of the subdivided RPD land with a result that at 1:5 density each new lot results in an average 2.5 acres of development and 7.33 acres of permanently protected land, at 1:4 density each new lot results in an average 2.0 acres of development and 8.0 acres of permanently protected land, and at 1:3 density each new lot results in an average 1.5 acres of development and 9.9 acres of permanently protected land. Clustering on lands suitable for development accommodates conservation of rural land and resources.

GIS analysis of subdivision potential for parcels in the County shows that there are approximately 1,450 unprotected parcels in the RPD and RL zones which could be divided into more than 5 lots. The potential for new development in the RPD is 9,211 new lots. Under current regulations those major subdivisions would trigger clustering requirements resulting in protection of at least 51,000 acres. The mandatory clustering provisions and TDR requirements for RPD development show that, at full build out, all rural new lots can occupy only 31,400 acres (17% of the Rural Preservation District). Use of TDRs within growth areas and development of rural subdivisions that achieve less than the allowed density will further reduce impacts of rural development on agricultural land, forests and other sensitive rural resources.

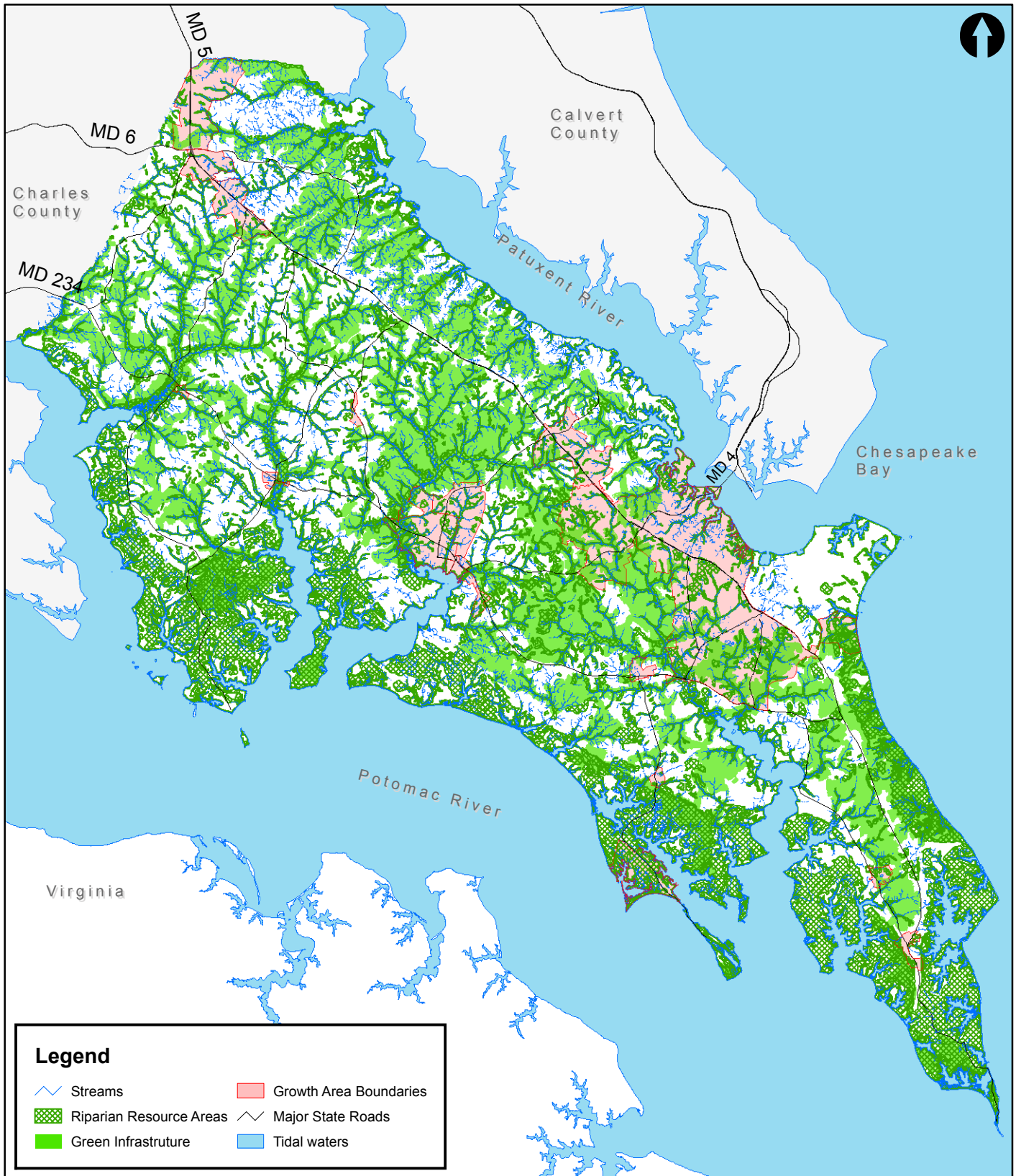
Figure 5.2.a.



St. Mary's County Composite overlay of sensitive environmental features



Figure 5.2.b.



St. Mary's County Significant Natural Habitats

0 1 2 3 4 8 Miles

5.3 ADHERENCE TO THE VISIONS OF THE PLANNING ACT

This Sensitive Areas Element outlines the County's adherence to the "Smart, Green and Growing" visions of State statutes. The element identifies areas to be protected and contains goals, objectives, principles, and standards designed to protect these areas from the adverse effects of development.

5.3.1 *Resource conservation: waterways, forests, agricultural areas, open space, natural systems, and scenic areas are conserved.*

The County has established objectives, policies, and actions to assure identification and protection of the following sensitive areas and resources: streams and their buffers; 100-year floodplains; habitats of threatened and endangered species; and steep slopes and other areas in need of special protection including tidal wetlands, Submerged Aquatic Vegetation (SAV), waterfowl areas, colonial bird nesting sites, shorelines, tidal and nontidal floodplains, nontidal wetlands and their buffers, anadromous fish spawning areas, groundwater and mineral resources, and wildlife corridors. As required by the State legislature in 2006, agricultural land (green infrastructure gaps, buffers, open space, forest conservation mitigation) and forest lands (green infrastructure and forest interior dwelling species habitat) intended for resource protection and conservation are now specifically included in this element. (See the Priority Preservation Area Element for agricultural and forest lands that are to intended to be used for production).

5.3.2 *Environmental protection: land and water resources, including the Chesapeake and coastal bays, are carefully managed to restore and maintain healthy air and water, natural systems, and living resources.*

The County will continue to use regulatory programs (such as the Critical Area Program, Forest Conservation regulations, Stormwater regulations, requirements for open space conservation and clustering etc.), tax and funding incentive programs (such as Agricultural Districts, Maryland Agricultural Land Preservation Foundation Easements, a transfer of development rights program, Installment Purchase Agreements), and planning programs (such as the Wicomico Scenic River Management Plan, Tributary Strategies for the Patuxent and Lower Potomac Rivers, Breton Bay and St. Mary's Watershed Restoration Action Strategies), to promote stewardship of the Chesapeake Bay.

5.3.3 *Stewardship: government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection.*

The County has established objectives, policies, and actions based primarily on avoiding loss, minimizing unavoidable loss and mitigating to offset the impacts associated with the loss. Based on this the County has and will continue to develop ordinances and programs to effectively protect sensitive areas, to set and measure progress in meeting goals for preservation, to set limits on the allowable loss of resources, and to assure that mitigation for unavoidable impacts is the responsibility and duty of those who benefit from the impact.

5.3.4 *Implementation: strategies, policies, programs, and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, State, and interstate levels to achieve these visions.*

Sensitive areas are inherently valuable to the entire community for the ecosystem functions they provide (mitigation of flooding, filtering for improvement of water quality, for their economic value (farm, fishery, forest, mineral products, recreational use) and for the reduction in service costs (reduced stormwater management, water supply). The County's

primary mechanism to maintain these values is via regulations that require environmentally sensitive designs and place the responsibility for protection, conservation and stewardship, and mitigation for losses predominately on the landowner in exchange for the value added from development. The County also participates in available State and Federal programs and has developed local programs funded primarily through taxes and fees associated with development to provide compensation to landowners so that conservation and stewardship of resource lands is a financially viable alternative to the development of resource lands in targeted areas.

5.3.5 *Quality of life and sustainability: a high quality of life is achieved through universal stewardship of the land, water, and air resulting in sustainable communities and protection of the environment.*

Maintaining, enhancing and avoiding disruption of the natural functions of wetlands, forests, and floodplains, and preventing development impacts that overwhelming the service capacity provided by natural systems are necessary to providing sustainable communities that maintain a high quality of life enriched by the benefits of the environment and as free as possible from the disruptions associated with losses and damages which increase risks of environmental hazards and man-made disasters. To assure that St. Mary's County develops in a sustainable manner that balances growth and resource protection, it is necessary to assure that hazard avoidance and mitigation is integrated into the planning and development process. Protection of and avoidance of development in sensitive areas is one important component of hazard avoidance. Another component is assuring that development is located to reduce exposure to risk associated with identified hazards, is constructed to minimize damage and disruptions from unavoidable risks and that development occurs in a manner that will not result in creating or increasing community exposure to hazards and adverse impacts. Of the twelve hazards identified as posing significant risks to the County, the highest risks are associated with 1) coastal/shoreline erosion, 2) extreme weather due to severe winter storms, 3) flood, 4) high wind due to hurricanes, 5) high wind due to tornado, 6) thunderstorm and lightning, and 7) wildfire. Also of concern are moderate risks associated with 8) hailstorms, 9) extreme summer heat and 10) drought. Risk of 11) earthquakes is considered to be low but the localized risk of 12) land failure of the steep slopes and cliffs, particularly in the Patuxent watershed is of increasing concern.

5.4 SENSITIVE AREAS - GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS

5.4.1 **Goal:** Identify and protect sensitive areas from the adverse impacts of development and human activity.

A. **Objective:** Map natural landscape features and resources including streams, tidal and nontidal wetlands, hydric soils, steep slopes, erodible soils, floodplains, important forest habitats and significant natural habitats.

i. **Policy:** Identify sensitive areas based on best available data from Federal, State, local sources. Identify State designated natural heritage areas, locally significant habitat areas, important natural areas, and fish, wildlife, and plant habitats, especially those of rare, threatened and endangered species. Utilize maps of these areas to evaluate development proposals and to target land conservation or habitat preservation and restoration efforts.

a. *Actions:*

- i) Utilize and maintain existing GIS data mapping locations for landscape features and resources, and routinely update the mapping as new information becomes available.
- ii) Consistent with State agency guidelines for release of

habitat and species location information, publish sensitive area mapping via an online tool for use by citizens, consultants, and staff to assist them in determining onsite resources, streamline design and review of projects and to assure identification and protection of mapped resources prior to design and approval of development plans. Because some resources and species with legal protection may be harmed as a result of general release of species specific location information, the County will:

- a) Maintain general “special project review area” information for internal review purposes.
- b) Require that all development projects seek site specific evaluation for presence or absence of significant habitats and species prior to acceptance of development proposals for review.

ii. **Objective:** Conserve fish, wildlife, and plant habitats through implementation of Federal, State and local resource protection policies which integrate resource protection measures into development activities. Figure 7.1.b. in Chapter 7 shows resource areas and habitats specifically identified for additional regulatory review by State and Federal agencies to assure protection of the resources.

a. **Policy:** Protect land, water and living resources.

i) *Actions:*

- a) For rural areas generally, and within all areas of green infrastructure mapped by the Maryland Department of Natural Resources, develop guidance maps to identify and regulations to conserve the land and water resource base that is necessary to maintain and support agriculture, forestry, fisheries activities and aquaculture, and to preserve nature-dominated environments (wetlands, forests, abandoned fields, stream valleys, floodplains, and habitat protection areas).
- b) Map habitat protection areas and establish regulations to conserve, protect, and enhance the overall ecological values, biological productivity and diversity of fish, wildlife, and plant habitats.
- c) Enforce regulations to protect breeding, feeding, and wintering habitats of wildlife species that require the Chesapeake Bay, its tributaries, or coastal habitats in order to sustain their populations.
- d) In areas planned for development, identify and map important networks of green infrastructure to be conserved as open space; coordinate passive recreation enhancements with open space conservation requirements; establish development standards that will enhance developed woodlands

and forests for their water quality benefits and utilize stormwater facilities as amenities to enhance developments.

- b. **Policy:** Implement the latest Maryland Chesapeake Bay Critical Area Program (including the criteria contained in COMAR sections 14.15.01 - 14.15.11) by establishing controls that minimize adverse development and land use while recognizing that, even if pollution is controlled, the number, movement, and activities of persons in the Critical Area can create adverse environmental impacts.
- c. **Policy:** Continue to implement Maryland's 1991 Forest Conservation Act (Natural Resources Article 5-1609 and amendments to date).
- d. **Policy:** Implement Lower Potomac and Patuxent River Tributaries Strategies to achieve the cap of nutrient pollution in the Chesapeake Bay at 40% of the 1985 nutrient loads:
 - i) *Actions:*
 - a) Establish zoning regulations that permit development of the type and intensity allowed by the comprehensive plan while assuring that water quality is not impaired.
 - b) In accordance with State regulations, require that developments utilize environmental site design to maximize conservation of natural plant and animal habitats to retain their natural capacity to intercept, infiltrate and filter runoff and where installation of stormwater control measures is unavoidable utilize regenerative stormwater systems or other innovative systems that reduce or eliminate runoff leaving the site and reduce or eliminate long term operation and maintenance of the facilities.
 - c) Set permit limits to minimize land disturbance and prohibit disturbance prior to approval of final development plans. Require use of the most appropriate best management practices to control and minimize soil erosion and runoff from development sites during construction.
 - d) Require that new and replacement developments adhere to measures that control their impacts.
 - e) Implement a program to reduce impacts by installing or retrofitting infrastructure to correct existing stormwater management and water quality problems.
- e. **Policy:** Coordinate with Federal and State regulatory agencies to verify compliance with environmental regulations, to streamline reviews and obtain approvals and implement projects which

protect water quality and habitats.

i) *Actions:*

a) Assure coordination and enforcement of restrictions and protections for wetlands, streams and their buffers with all agencies responsible for development review.

iii. **Objective:** Establish and implement regulations and promote actions that are adequate to protect and enhance natural landscape features and resources.

a. **Policy:** Provide appropriate buffers to protect the natural functions of identified resources. Generally prohibit disturbances and alterations to the resources or their buffers unless the disturbances are unavoidable and significant justification exists for their disturbance. Require that substantial and significant mitigation is provided both as a deterrent to disturbances and to assure that mitigation is sufficient to offset the impacts of the disturbance or alteration. Improve the functions of riparian wildlife habitats through programs to establish or enhance buffers via planting.

5.4.2 **Goal:** Develop specific goals, objectives, policies and actions for the identified sensitive areas and the natural, recreational, historical and cultural resources for the County.

5.5 RIPARIAN RESOURCE AREAS--RIVERBANKS, STREAMS, AND THEIR BUFFERS (INCLUDING THE CRITICAL AREA BUFFER)

- GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS

5.5.1 **Goal:** Protect riverbanks, streams and their buffers from the adverse impacts of development and human activity. Figure 5.2.b. shows the extent of riparian resource areas which include streams, tidal and nontidal wetlands and their regulatory buffers.

A. **Objective:** Preserve, protect and restore the natural ecosystems and functions of rivers, streams, and their buffers and adjacent hydric and erodible soils.

i. **Policy:** Maintain and enhance the natural environment of rivers and streams. When land is subdivided or otherwise developed, establish native forest or other naturally vegetated shoreline buffers along the Bay, tributary rivers and streams and associated tidal and nontidal wetlands wherever vegetated buffers are currently absent.

ii. **Policy:** Maintain natural riparian habitat, maintain runoff patterns and manage stormwater flows to maintain the natural ecology and hydrology of streams.

a. *Actions:*

i) For all river banks, perennial streams, and intermittent streams within the Critical Area, continue to provide riparian buffers per State regulations that are at least 100 feet wide measured from the top of each bank and expanded for adjacent wetlands, steep slopes and erodible soils.

ii) For intermittent streams outside the Critical Area provide

riparian buffers at least 50 feet wide measured from the top of each bank and expanded for adjacent wetlands, steep slopes and erodible soils.

- iii) Establish and maintain appropriate natural vegetation within riparian buffers to provide continuous riparian wildlife corridors, to protect the streams' natural functions, to stabilize banks, provide shading, reduce pollutants and produce leaf litter that supports organisms and processes that form the base of the healthy stream food chain.
 - iv) Where stream reaches and adjacent riparian buffers are already degraded, require development that contributes runoff to the degraded reach to utilize regenerative stormwater designs for in channel restoration that manages anticipated upstream stormwater runoff and return the stream reach and its buffers to their natural function and hydrology.
 - v) Use funds available from fee-in lieu of planting projects to conduct riparian buffer planting projects within stream buffers on public lands, within identified green infrastructure "gaps," and on private lands when a conservation easement is proffered by the landowner.
- iii. **Policy:** Maintain or improve water quality in streams.
- a. *Actions:*
 - i) Provide incentives to establish buffers and implement soil conservation and water quality plans for development, agricultural and forestry activities;
 - ii) Cluster development activities to decrease areas of disturbance and limit amount of impervious surface in stream watersheds;
 - iii) Provide both quality and quantity improvements in new stormwater management structures;
 - iv) Use retrofit measures to address stormwater management problems;
 - v) Avoid use of streams and their buffers for stormwater management;
 - vi) Plant forested buffers; and
 - vii) Utilize sustainable alternative methods to provide water to livestock.

5.6 TIDAL WETLANDS, NONTIDAL WETLANDS AND THEIR BUFFERS **- GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS**

5.6.1 **Goal:** Protect tidal wetlands, nontidal wetlands, wetland buffers, and the Critical Area Buffer from the adverse impacts of development and human activity. Figure 5.7. shows the extents of tidal and nontidal wetlands.

A. **Objective:** Protect tidal and nontidal wetlands resources, because of their

importance for plant habitat, fish and wildlife habitat, and overall water quality.

- i. **Policy:** When land is subdivided or otherwise developed, establish native forest and shoreline buffers adjacent to tidal and nontidal waters and wetlands wherever vegetated buffers are currently absent.
- ii. **Policy:** Maintain and enhance the natural environment of wetlands.
 - a. **Actions:**
 - i) Prohibit alteration of wetlands including mowing, placement of fill in wetlands, ditching, or significant alteration of natural runoff patterns.
 - ii) Maintain areas of transitional habitat between aquatic and upland communities.
 - iii) Protect hydric soils adjacent to wetlands by including those soils in an expanded wetland buffer that will help maintain wetland hydrology.
 - iv) Increase wetland habitat by assuring use of “living shoreline” designs for shore erosion control wherever such designs are feasible.
- iii. **Policy:** Direct intense development activity away from areas which are in proximity to water courses and wetlands. Require development to establish permanent protection measures for wetlands and lands in close proximity to wetlands.
 - a. **Actions:**
 - i) Establish tidal and nontidal wetlands buffers according to State and Federal law and require a setback from these buffers to limit disturbance in the buffers during construction.
 - ii) Assure coordination and enforcement of restrictions and protection for wetlands and their buffers with all agencies responsible for development review.
- iv. **Policy:** Employ best management practices to minimize potential associated water quality impacts when development activity takes place adjacent to stream banks.
- v. **Policy:** Discourage alteration of, obstruction of and construction in existing wetlands or wetland buffers and of alteration of the natural drainage patterns, unless adequate measures to mitigate potential adverse impacts are included in the development.
 - a. **Actions:**
 - i) Address design and placement of storm water management, roads, limits of grading and clearing, installation of public and private utilities in the zoning, subdivision, road and stormwater management ordinances and regulations.
- vi. **Policy:** Maintain or improve water quality in wetlands.

- a. *Actions:*
 - i) Provide incentives to establish buffers and implement soil conservation and water quality plans for development, agricultural and forestry activities.
 - ii) Utilize environmental site design to reduce site impacts and to effect both stormwater quality and quantity improvements.
 - iii) Prohibit use of existing wetlands and their buffers for installation of structural stormwater management practices, but facilitate the approval and permitting of regenerative stormwater management designs that utilize and enhance wetlands to increase infiltration of stormwater into the groundwater table.
 - iv) Assist landowners in seeking funding to install fencing to keep livestock out of wetlands.

5.7 TIDAL FLOODPLAINS, NONTIDAL FLOODPLAINS AND THE FLOODWAY
- GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS

5.7.1 **Goal:** Protect tidal and nontidal floodplain and the floodway from the adverse impacts of development and human activity. Figure 5.7 shows the extents of tidal floodplains, nontidal floodplains and floodways.

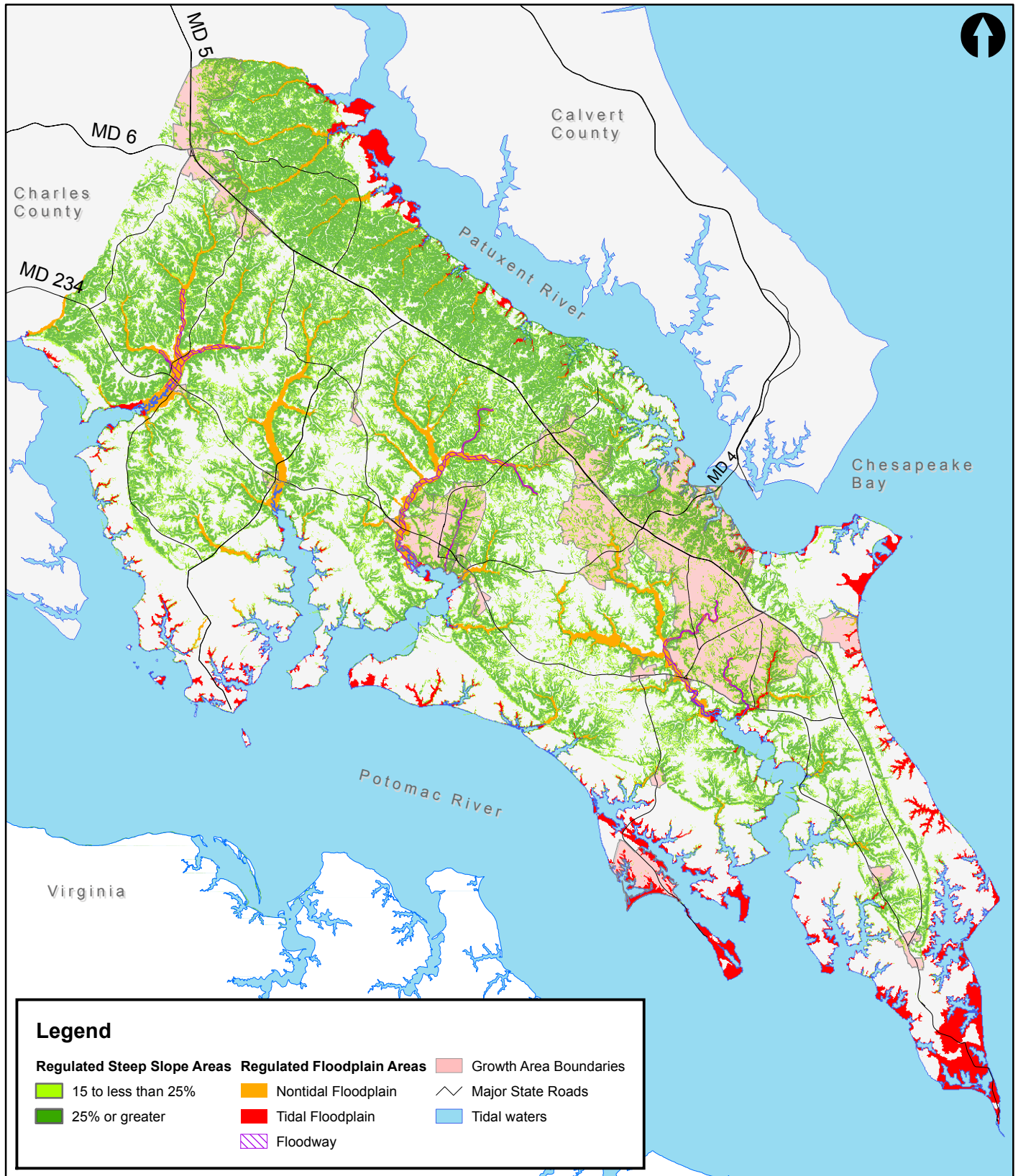
A. **Objective:** Preserve, protect, and restore the natural environment and beneficial functions of floodplains.

i. **Policy:** Limit and manage development activity in the 100-year flood plain to reduce vulnerability and flood hazards.

- a. *Actions:*
 - i) For all 100 year floodplain areas, continue to enforce existing regulations that require buffers at least 50 foot wide measured from the edge of the floodplain (determined by elevation).
 - ii) Avoid disturbances to floodplains and their buffers to the maximum extent possible:
 - a) Continue to require that a floodplain easement be platted over the floodplain and its buffer for developments requiring subdivision or site plan approval and prohibit any new development activities with the floodplain easement.
 - b) Continue existing prohibition on development in the floodplain when alternative locations exist on a development site.
 - c) Continue to prohibit creation of new development lots within the floodplain.
 - d) Continue to prohibit placement of fill within the floodplain.

- e) Establish regulations to prohibit the placement of stormwater detention ponds and structures within the regulated floodplain or the floodplain buffer.
- ii. **Policy:** Minimize the disturbance of vegetation in the 100-year flood plain.
- a. *Actions:*
 - i) Strengthen regulations for maintenance and establishment of natural vegetation within floodplains to enhance natural floodplain functions for safely conveying water, for providing wildlife habitat, for capturing, filtering and naturally removing sediments and pollutants, and to retain important components of the County’s “green infrastructure.”
 - a) Prohibit clearing of existing natural vegetation in the floodplain easement.
 - b) Require development that contributes runoff to a floodplain that has sparse or no forest vegetation to establish the floodplain buffer in a continuous canopy of diverse natural forest cover.
 - ii) Maintain community eligibility for participation in the National Floodplain Insurance Program (NFIP) by assuring that development activities are conducted and structures are constructed or expanded in a manner that fully complies with (NFIP) criteria. Regulate construction and use of permitted structures to minimize damage according to State and Federal policy.
 - iii) Seek to lower flood insurance rates through participation in the Community Rating System (CRS) which is a Federal Emergency Management Agency (FEMA) program that decreases flood insurance rates for residents in communities with effective hazard mitigation strategies.
 - iv) Develop a comprehensive “No Adverse Impact” program for floodplain management. Such a program would help:
 - a) reduce flood hazards and foster disaster resilience,
 - b) reduce damage to public and private property and loss of life,
 - c) minimize adverse impacts on surrounding properties, communities, and the coastal environment,
 - d) provide better planned and designed development and infrastructure that are less likely to cause and suffer damage,
 - e) reduce the impacts of intensive development on sensitive coastal areas, degradation of the coastal environment,

Figure 5-7



St. Mary's County Steep Slopes and Floodplains

0 1 2 3 4 8 Miles

- f) minimize loss of life, damage to property, and
 - g) anticipate and account for increased storm frequency, intensity and projected impacts from sea level rise.
 - v) Revise floodplain ordinances to increase the freeboard requirement by 2 feet for new and substantially improved construction.
 - vi) Given the multi-generational duration of most development, consider increasing elevation criteria and minimum construction standards for development in areas that are most vulnerable to impacts from storm surge, coastal flooding and erosion, and increasing risk anticipated due to the 2 to 4 feet of sea level rise anticipated over the next 50 to 100 years.
- B. **Objective:** Plan for and accommodate land use changes and impacts that are anticipated due to climate variability and projections for sea level rise.
- i. **Policy:** Map vulnerable lands, infrastructure and facilities.
 - ii. **Policy:** Strengthen building codes and require use of appropriate construction and management techniques for new infrastructure and structures in vulnerable areas focusing particularly on elevation of buildings, foundation design, use of materials that can withstand periodic flooding, resistance to debris impact, resistance to wind and wave action, establish standards for abandonment and removal of impacted structures.
 - iii. **Policy:** Maintain risk assessment mapping for public review and consider mandatory disclosure of projected risk as part of real estate transactions.
 - iv. **Policy:** Include risk assessment and vulnerability when making public investments in infrastructure investments to incorporate responses to threats into placement decisions and designs for new facilities and for upgrade and replacement of threatened facilities. Also include in land conservation to reduce threats and preserve options for retreat of natural resources.

5.8 STEEP SLOPES, HIGHLY ERODIBLE SOILS, AND HYDRIC SOILS **- GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS**

- 5.8.1 **Goal:** Protect steep slopes and highly erodible soils from the adverse impacts of development and human activity to prevent erosion which threatens structures and infrastructure, to reduce sediment pollution and to manage the adverse impacts of silt and sediment in streams, rivers, ponds, tidal creeks and bays. Figure 5.7 shows the extent of steep slopes.
- A. **Objective:** Protect steep slopes from disturbances to protect water quality and aquatic habitat; to minimize hazards of flooding, landslides, erosion, and pollution; and to maintain areas of high biodiversity.
- i. **Policy:** Preserve slopes that have a 25% gradient or greater from disturbance or development.
 - ii. **Policy:** Discourage development activities on slopes of 15% up to 25% to avoid the potential associated water quality impacts from the development

of steep slopes unless there is no viable alternative.

iii. **Policy:** Minimize disturbance to highly erodible soils.

B. **Objective:** Limit alteration of highly erodible soils on steep slopes or that are in close proximity to shorelines, streams, and wetlands to limit risk to structures and infrastructure and to reduce sediment impacts to water quality and aquatic habitat; to minimize hazards of landslides, erosion, and pollution.

i. **Policy:** Preserve up to a 300 foot buffer of erodible soils adjacent to streams, wetlands and shorelines.

ii. **Policy:** Prohibit disturbance to highly erodible soils on slopes exceeding 25% gradient.

iii. **Policy:** For sites with erodible soils down slope from the planned development, require engineered erosion and sediment control plans and construction grading plans, and require use of appropriate stormwater management specifically designed to address the presence of erodible soils.

iv. **Policy:** Minimize disturbance to highly erodible soils on steep slopes. Utilize environmental site design to retain existing forest vegetation on erodible soils and to maintain predevelopment runoff patterns to the extent possible and to avoid concentrating runoff flowing toward erodible soils. Where concentration of flow is required, utilize designs for best management practices to infiltrate surface runoff and stormwater management measures that release runoff at non-erosive rates or that convey runoff safely to stable stream receiving channels downhill of the areas of erodible soils.

5.8.2 **Goal:** Protect hydric soils associated with streams, floodplains, wetlands and their buffers from the adverse impacts of development and human activity in order to maintain natural functions of the sensitive resources and to facilitate natural movement, inland migration, and allow the natural expansion of wetlands as a means to offset historic wetland losses and changes expected due to sea level changes.

A. **Objective:** Minimize disturbance to hydric soils that area associated with wetlands and streams in order to maintain natural patterns of surface and underground hydrology.

i. **Policy:** Apply buffer expansion criteria for streams, tidal wetlands and nontidal wetlands to protect areas of hydric soils adjacent to these resources and their minimum buffers. Delineate these expanded buffers on subdivision plats and site plans.

ii. **Policy:** Facilitate areas of hydric soils within expanded buffers to naturally convert to tidal or nontidal wetlands.

5.9 SHORELINE PROTECTION, ACCESS AND DEVELOPMENT

- GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS

5.9.1 **Goal:** Facilitate and manage installation of shoreline erosion control measures and development in near-shore areas in a manner that provides for protection and enjoyment of property, provides private and public access to the water for County residents, restores, protects and enhances shoreline habitats, and prevents adverse impacts of development and human activity.

- A. **Objective:** Allow long term protection of shoreline property in a manner that does not adversely impact nearby properties and, does provide, protect, and enhance adjacent near shore or in-water habitats.
- i. **Policy:** Outside of those areas that have been mapped by the Maryland Department of the Environment as appropriate for structural shoreline stabilization measures, improvements to protect a property against erosion shall consist of nonstructural shoreline stabilization measures that preserve the natural environment, such as marsh creation; however, in areas where it can be demonstrated to the satisfaction of the Department of the Environment that these measures are not feasible, such as areas of excessive erosion, areas subject to heavy tides, and areas too narrow for effective use of nonstructural shoreline stabilization measures, then alternative measures may be considered.
 - ii. Shore erosion control measures shall be designed in a manner that provides long term protection without increasing the rates of erosion on nearby properties and that provides the least impact on habitat, the Buffer and on shoreline resources. Cost of installation shall not be considered in a determination of the type of measure to be allowed. All measures must be permitted by Federal, State and local agencies and the installation shall be in accordance with the permit issued.
 - a. *Actions:*
 - i) Establish guidelines for issuing permits for shoreline work that give equal weight to preservation of near shore and in water habitat and natural resource and property protection.
 - b. **Policy:** Provide public water-dependent recreational and water access facilities and facilitate enhancement and improvements of commercial facilities.
 - i) *Actions:*
 - a) Limit development activities in the 100 foot Buffer to those that are specifically water-dependent. Revise non-conforming use standards to allow site improvements that reduce Buffer impacts and provide improvement of water quality.
 - b) Encourage marina services to meet the water dependent commercial and recreational needs and developmental goals.
 - c) Pursue revision/update of the zoning ordinance general standards for Marine Uses and approve zoning map revisions to provide conforming use status to existing marinas that do not currently have Commercial Marine zoning to facilitate continuation, and enhancement of viable marina activities on existing sites. Approve Buffer Management Overlay status for developed areas in the Critical Area Buffers on existing marina sites.

- d) Minimize individual and cumulative impact of activities associated with water-dependent facilities on water quality and fish, wildlife and plant habitat by updating performance standards for facilities and activities.
- e) Acquire lands that can provide public water access to the Patuxent River.
- c. **Policy:** Support fisheries and aquaculture activities to enhance fish stock and markets for local watermen.
 - i) **Actions:**
 - a) Seek new investment in aquaculture, maintenance of existing aquaculture activities, and restoration of overworked areas.

5.10 HABITAT PROTECTION AREAS
- GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS

These policies and actions are intended to conserve wildlife habitats, including those that tend to be least abundant or which may become so in the future if current land use trends continue. St. Mary's County is located along the Atlantic flyway, which every year channels the annual seasonal flights of millions of migratory birds. The region has always been a favored winter residence or stopover for many species of waterfowl on their way south from their summer breeding grounds.

5.10.1 **Goal:** Protect sensitive habitats and wildlife from the impacts of development and human activity.

- A. **Objective:** Facilitate protection of resources by working with State and Federal agencies to identify critical habitat areas to be protected and provide for adequate review and direction on measures necessary to conserve the habitats.
 - i. **Policy:** Identify and protect species in need of conservation, rare, threatened and endangered species and their habitats.
 - a. **Actions:**
 - i) To streamline the review and approval process, assure that, prior to acceptance of a development proposal for review, the applicant has provided evidence of review by the State of Maryland DNR for the presence or absence of critical habitats, that any habitats identified for the site are mapped on the sensitive areas plan, and that any habitat protection recommendations issued by DNR are incorporated into the plan design.
 - ii. **Policy:** Identify and protect areas of existing submerged aquatic vegetation (SAV) and support restoration efforts in barren areas which historically had SAV beds.
 - a. **Actions:**
 - i) Coordinate with Federal and State natural resource and permitting agencies to identify and protect shallow water habitat and SAV areas.

- ii) Coordinate water quality protection program efforts and nutrient pollution reduction efforts (see Tributary Strategy Program in Chapter 7) to maintain or improve water quality and light penetration needed for SAV recruitment and survival.
 - iii) Sponsor and participate in local, State and Federal SAV restoration efforts. Promote training for and participation by local watermen in restoration projects.
 - iii. **Policy:** Identify and protect waterfowl areas and colonial bird nesting sites.
 - a. *Actions:*
 - i) Coordinate with Federal and State natural resource permitting agencies to identify and protect waterfowl habitat areas including staging areas, concentration areas, breeding areas, and feeding areas.
 - ii) Enforce the requirement to provide State or Federally mandated buffers and time of year restriction on development and other activities around breeding and nesting sites.
 - iii) Promote awareness and conservation efforts by promoting the recreational, aesthetic and economic benefits of tourism related to waterfowl.
 - iv) Promote conservation of habitats through cooperative agreements with landowners, use of conservation easements, and other tax incentive programs.
 - iv. **Policy:** Identify and protect anadromous fish spawning areas.
 - a. *Actions:*
 - i) Protect nontidal wetlands of importance to plant, fish and wildlife, and water quality.
 - ii) Protect the in-stream and stream-bank habitat of anadromous fish propagation waters.
 - v. **Policy:** Identify and protect forest interior dwelling species (FIDS) habitat
 - a. *Actions:*
 - i) Using GIS analysis of existing forest stands develop and publish a county wide map of likely FIDS habitat.
 - ii) Continue to implement regulations requiring identification and conservation of FIDS habitat, requirements for development designs which avoid fragmentation of existing forest blocks meeting the definition as FIDS habitat and minimize creation of edge habitat.

5.11 GREEN INFRASTRUCTURE, WILDLIFE CORRIDORS AND OPEN SPACE
- GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS

5.11.1 **Goal:** Maintain a county wide network of open space including large blocks of forest and wetlands connected by riparian corridors necessary to reduce impacts from habitat

fragmentation by providing for movement of wildlife and connection between important habitats. Utilize the infrastructure and corridors to maintain environmental services for stormwater management, flood control, and natural filters to protect water quality. Make use of the greenways and open spaces for passive outdoor recreation and pedestrian connections to enhance quality of life in growth areas.

5.11.2 **Goal:** Protect green infrastructure, wildlife corridors from the impacts of development and human activity.

5.11.3 **Goal:**

A. **Objective:** Utilize “Green Infrastructure” mapping provided by DNR and detailed GIS data to identify and map important forest and wetland “hubs” and connections between them and implement regulations and incentives that target the protection and enhancement of these areas. Figure 5.2.b shows the extent of Green Infrastructure mapped for St. Mary’s County.

i. **Policy:** Establish required subdivision open space, natural preserves, public parks and education areas that include riparian corridors as a means to protect the corridors for their water quality and habitat values and for the recreational and educational opportunities such lands can provide.

a. *Actions:*

i) Use green infrastructure maps and the sensitive areas data layers to develop a Countywide Greenway Plan for a developing network of protected open space for the County. Portions of the network should be developed for passive recreation and the balance conserved as wildlife habitat and corridor system. This network should provide pedestrian connections between major developments and be linked via public paths and walkways to existing parks and recreational open space areas.

ii) As new development is proposed, the County ordinance and transportation plans should assure that sensitive areas are protected within open space parcels in major subdivisions. These open spaces will contribute to the conservation of a continuous network of wildlife corridors and should be enhanced by development of a greenway or trail network in accordance with the Countywide Greenway Plan. Bricks and mortar construction of the greenway system shall be designed and located to avoid and minimize impact on the habitat and ecological service values of the sensitive areas.

5.12 MINERAL RESOURCES

- GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS

Mineral resource extraction, principally mining of sand and gravel, is recognized as an important economic activity and regulations shall encourage utilization of these resources.

5.12.1 **Goal:** Preserve the natural, recreational, historical and cultural heritage in conjunction with economic and social well-being to maintain and enhance the quality of life.

A. **Objective:** Minimize or avoid impacts while accommodating extracting of mineral resources.

- i. **Policy:** Avoid loss of access to potential resources, and mining activities.
- ii. **Policy:** Avoid and minimize adverse impacts to surrounding habitat and water resources and adjacent uses.
 - a. *Actions:*
 - i) Hold all mining activity subject to minimum standards and conditional use approval.
 - ii) Establish regulations for mining activities to assure that the negative physical impacts, water quality and negative visual impacts to adjoining properties are avoided or mitigated.
 - iii) Identify large undeveloped tracts with potential mineral resources and seek to retain these tracts in an undeveloped State to avoid loss of mineral resources.
 - iv) Identify and require protection of habitat protection areas that are unsuitable for future mining operations.
 - v) Minimize potential water quality impacts of activities associated with resource extraction, including the removal of vegetation, soil disturbance and grading.

5.12.2 **Goal:** Protect sensitive areas from the adverse impacts of mining activities by requiring implementation of onsite measures and BMP's designed to protect and maintain downstream water quality and habitat.

5.13 CONSERVATION AND UTILIZATION OF NATURAL, HISTORIC AND CULTURAL RESOURCES - GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS

5.13.1 **Goal:** Preserve the natural, historical and cultural heritage of the County in conjunction with economic and social well-being to maintain and enhance the quality of life.

A. **Objective:** Promote balanced heritage activities and programs that capitalize on the natural, recreational, historical and cultural resources of the County and the region.

- i. **Policy:** Develop and maintain an inventory of natural, recreational, historical, and cultural resources in the County (noting the physical, biological and cultural connections between public and private sites) as a resource for tourism and recreation; education and research; preservation and conservation; and economic development.
 - a. *Actions:*
 - i) Continue to identify historically significant properties for inclusion in the Maryland Inventory of Historic sites.
 - ii) Require the identification of cemeteries, burial grounds, and archeological sites on a property prior to any disturbance of the site.
 - iii) Ensure protection or preservation of historic or prehistoric archaeological materials:
 - a) Adequately inventory resources throughout the County;

- b) Devise and enforce protective requirements for all development, considering among other things: buffers, plat notes, bonding and inspections;
 - c) Identify known resources on all development plans; and
 - d) Document resources discovered during development.
- iv) Amend development review process to include review of all development proposals for potential adverse impacts on historic resources by the Historic Preservation Commission.
 - v) Review and document the historic and architectural significance of all structures slated for demolition that are fifty years or older. Inform landowners of the resources available for conservation and adaptive reuse of significant historic structures
 - vi) Encourage compatible development in designated historic districts. Establish performance standards to prevent negative impacts on surrounding properties.
 - vii) Document local cultural traditions through the Historical Society.
 - viii) Promote the designation of historic sites and districts.
 - ix) Promote adaptive reuse of historic structures. Consider establishing a nonconforming use provision that allows long vacant structures which are documented and designated as having both historic and architectural significance to be renovated in a manner consistent with maintaining historic and architectural integrity and to be occupied with uses that are compatible with their historic purpose and use.
- ii. **Policy:** Promote historic resources for economic opportunity.
 - a. *Actions:*
 - i) In cooperation with the other Southern Maryland counties, and State and Federal partners, implement the Southern Maryland Heritage Plan.
 - a) Continue to participate in the Chesapeake Gateways network and to utilize network resources to develop and interpret existing sites (Sotterley Mansion, Leonardtown Historic District, the Naval Air Station Museum, Greenwell State Park, Myrtle Point Park, Point Lookout State Park, Historic St. Mary's City, Piney Point Lighthouse Museum, and St. Clements Island Potomac River Museum).
 - b) Seek designation of water access points for the Captain John Smith Chesapeake National Historic

Trail and expand interpretation to include the trail at appropriate sites.

- ii) Encourage and assist the public and private sectors to evaluate opportunities to implement techniques to protect, enhance and utilize the natural, historical and cultural resources of Southern Maryland.
 - iii) Provide local tax incentives for the preservation of important and significant historical and cultural resources.
 - iv) Adopt design guidelines/appearance code to be applicable to all locally designated historic sites and districts.
 - v) Promote recognition of and financial investment in heritage resources to increase economic opportunity and revenues for all segments of the economy.
- iii. **Policy:** Encourage participation in natural, historic and cultural preservation through education and public awareness.
- a. *Actions:*
 - i) Develop signage to promote, link and interpret the Southern Maryland heritage area.
 - ii) Demonstrate the economic value of heritage tourism, travel and recreation; develop and promote heritage tourism and thematic tours of the Southern Maryland heritage area.
 - iii) Expand and promote heritage education, using natural and cultural resources of the Southern Maryland heritage area to communicate the importance of the resources to the quality of life; educate about threats to these resources and everyday opportunities for action.
 - iv) Publicly acknowledge additional sites included in the Maryland inventory, and present the property owners with a copy of all research materials.
 - v) Expand environmental education curriculum in public schools.
- iv. **Policy:** Maintain heritage resources: seek and support increased opportunities for conservation, preservation, and maintenance of heritage resources through official State and Federal recognition of County sites and of Southern Maryland as a "Heritage Area."
- a. *Actions:*
 - i) Implement recommendations of adopted plans and programs such as:
 - a) Southern Maryland Heritage Area Plan.
 - b) Religious Freedom Byway Corridor Management Plan.
 - ii) Support new and ongoing planning efforts to maximize the

public benefits of :

- a) Chesapeake Gateways Network.
 - b) Captain John Smith Chesapeake National Historic Trail.
 - c) Newtown Neck property acquired by the State in 2009.
 - d) Kitt's Point property acquired by the State in 2009.
 - iii) Support local, regional, State and Federal heritage program efforts, such as the national register of historic places and Maryland historical trust grants programs, which provide incentives to foster the preservation or restoration of significant structures.
 - iv) Support public and private community preservation efforts.
 - v) Maintain certified local government status through the Maryland Historic Trust.
- v. **Policy:** Preserve, maintain and enhance the character defining qualities of scenic and historic roadway corridors.
- a. *Actions:*
- i) Implement recommendations of the Historic Roads Survey Phase I to seek recognition and historic district status for eligible roads and their vicinities (based on the detailed surveys completed in the Historic Roads Survey Phase II). At a minimum, add these roads corridors to the list of scenic road corridors designated for protection in the Zoning Ordinance.
 - ii) Ensure implementation of ordinance requirements for protection of designated scenic and historic corridors, including historic bridges.
 - iii) Implement the Religious Freedom Byway Corridor Management Plan to:
 - a) Designate the Byway routes and protect the integrity of the resources along the route to maintain their value for heritage tourism.
 - b) Develop directional and interpretive signage.
 - c) Develop heritage tourism resources.

5.14 AGRICULTURAL LANDS

- GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS

- 5.14.1 **Goal:** Preserve available agricultural and rural resource areas, agricultural uses and activities throughout the County for their importance as components of both an important local industry and of rural character by implementing the goals, policies and objectives of Chapter 6: Priority Preservation Area Element of this plan. The extent of agricultural lands mapped as of 2007 is shown in Figure 5.14.

- A. **Objective:** Maintain a large percentage of rural land in farm and forest use by targeting the Priority Preservation Areas for conservation and by implementing other County's agricultural land preservation and economic programs to broadly protect agricultural and forest land and operations countywide.

5.14.2 **Goal:** Work with State and Federal agencies and farmers to develop and fund programs and policies for monitoring and managing runoff from lands in agricultural production.

- A. **Objective:** Promote implementation of practices and measures that prevent, reduce and/or mitigate adverse impacts on water quality and habitat caused by nutrients, chemicals and sediments in agricultural runoff.

5.15 FORESTED LANDS

- GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS

5.15.1 **Goal:** Preserve and restore forest resources, uses and activities throughout the County for their importance as components of both an important local industry and of rural character and for the water quality and habitat benefits and environmental services forests provide. The extent of forested lands mapped as of 2007 is shown in Figure 5.14.

- A. **Objective:** Maintain and enhance forest cover to maintain biological productivity and habitat values throughout the County by enhancing and restoring riparian forest ecosystems, minimizing the impacts of forestry activities on water quality, and providing for a net increase in forest vegetation in the Critical Area.

- i. **Policy:** Manage forest and woodland to maintain maximum values for wildlife, water quality, timber, recreation and other resources recognizing that in some cases these uses may be mutually exclusive.

- ii. **Policy:** Pursue increased forest acreage and managed woodlands, particularly in the Critical Area.

- iii. **Policy:** Minimize the removal of trees associated with development activities and mitigate the impacts of tree removal within development envelopes.

- a. *Actions:*

- i) Develop an urban tree program for the Leonardtown and Lexington Park Development Districts and for the Charlotte Hall Town Center.

- ii) Develop a targeting tool and maps to prioritize forest protection and enforce regulations and provide incentives for protection of priority areas (See Chapter 6: Priority Preservation Area Element).

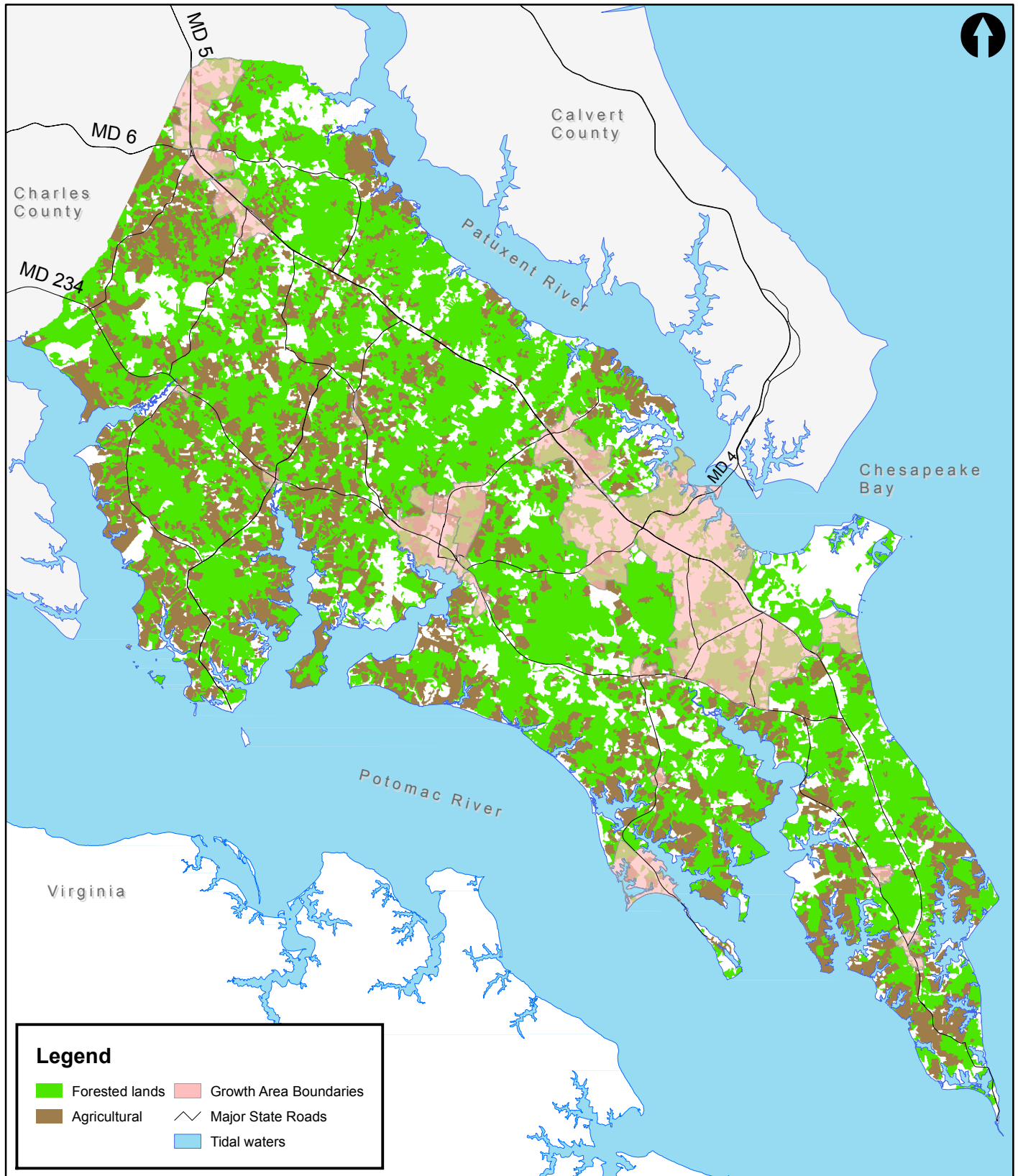
- a) MD Biological Stream Survey has identified Stronghold Watersheds with exceptional water quality that could be core targeting areas. Figure 5.7 maps the extent of Stronghold watersheds mapped as of 2007.

- b) Headwater forests should be an important component.

- c) Stream/water body buffers should be an element, but not to the extent that it dominates the targeting.

- d) Map FIDS habitat.

Figure 5-14



St. Mary's County Forested or Agricultural Lands



5.16 COMPLIANCE WITH STATE AND FEDERAL PROGRAMS
- GOALS, OBJECTIVES, POLICIES, ACTIONS AND MEASURES FOR SUCCESS

5.16.1 **Goal:** Adopt and implement programs in compliance with State and Federal programs necessary to meet State mandated goals and to maintain eligibility for and participation in State or Federal funding and programs.

A. **Objective:** Continue to implement Maryland's Chesapeake Bay Critical Area Program in accordance with "the criteria" (COMAR section 14.15.01 - 14.15.11), adopted State regulations, and amendments to date. Figure 7.1.b in Chapter 7 shows the extent of the Critical Area mapped in the County, Leonardtown and on State and Federal properties.

i. **Policy:** Establish development and land use controls that minimize adverse impacts on water quality that result from pollutants that are discharged from structures or conveyances or that have run off from surrounding lands; accommodate growth in the Critical Area and also address the fact that, even if pollution is controlled, the number, movement, and activities of persons in the Critical Area can create adverse environmental impacts.

a. *Actions:*

i) Update the County's Critical Area program to assure compliance with the law and adopted State regulations to facilitate uniform application and enforcement of the regulations while streamlining the review and approval of applications.

ii) Establish an online GIS mapping tool and additional data layers to assist landowners determining how regulations impact their sites and to streamline review.

ii. **Policy:** When land is subdivided or otherwise developed, establish (via planting and management for natural regeneration) native forest and shoreline buffers along the Bay, tributary streams and tidal and nontidal marshes wherever vegetated buffers are currently absent.

B. **Objective:** Identify and maintain systems of interconnected open space throughout the County including scenic roadway corridors, greenways, trails, and conserved "green infrastructure." The open space should include, and function to provide, buffers for rivers, streams, tidal shorelines, wetlands, and roadside development; wildlife corridors; recreation areas; public and private natural areas; intermodal transportation links, and utility corridors.

i. **Policy:** Develop greenway and open space systems for the Potomac, Patuxent and Chesapeake watersheds in the County to provide opportunities for recreation, public access, habitat protection and water quality improvement and to link and interpret Southern Maryland heritage area sites.

a. *Actions:*

i) Manage natural lands in the County recreation and parks system to provide resource protection benefits.

- ii) As new lands are sought for or accepted into the system, seek lands that meet the needs for active recreation and are also or can be physically connected to the greenway and open space system.
 - iii) Demonstrate and utilize implementation techniques and natural resources protection objectives on publicly managed lands to educate citizens and businesses about the benefits of a healthy environment.
 - iv) Require compliance with resource protection policies by county agencies and departments in the review for approval of projects.
- ii. **Policy:** Conduct a viewshed analysis to identify viewsheds that have significant historic, cultural, economic, or aesthetic value and develop specific guidance and/or regulations for protection of the significant viewsheds identified in the study.