

Queen Anne's County Phase II WIP

1. Overview:

- *Queen Anne's County's Phase II WIP Team Participants:*

Teri Batchelor	Maryland Dept. of Natural Resources Forest Service
Kathy Boomer	Town of Queenstown
Steve Cohoon	Director, Queen Anne's County Planning & Zoning
David Dunmyer	Commissioner, Queen Anne's County
Rob Gunter	Planner, Queen Anne's County Planning & Zoning
Allison Howard	Queen Anne's Soil Conservation District
Christopher Jakubiak	Jakubiak & Associates, Inc. and Town of Church Hill
Isabel Junkin	Chester River Association
Eva Kechner	Zoning Administrator, Town of Centreville
Donna Landis-Smith	Agriculture Specialist, Queen Anne's County Planning & Zoning
Tom Leigh	Miles-Wye Riverkeeper, Mid-shore Riverkeeper Conservancy
John McKay	Maryland Department of Environment
Tucker Moorshead	Earth Data Incorporated
John Nickerson	Director, Environmental Health Department
Allison O'Hanlon	Maryland Department of Environment
Jenny Rhodes	U of MD Extension Educator, Agriculture and Natural Resources
John Scarborough	Chief of Engineering, Queen Anne's County Dept. of Public Works
Bob Simmons	Commissioner, Queen Anne's County
Helen Spinelli	Planner, Queen Anne's County Planning & Zoning

- *Summary statement of team's work and commitment to meet the Phase II WIP goals:*

The Queen Anne's County WIP team is comprised of a group of individuals representing several different agencies and organizations. Team members are noted above. Team members met monthly to discuss and understand the ever changing WIP Phase II development process, the validity and equitable distribution of the assigned target loads for the County, as well as document local capacity and programs and to develop the strategies that may be used during implementation of this plan. As part of the strategy development process, an initial step was to evaluate our current capacity to perform water quality restoration activities that will benefit the Chesapeake Bay. As a reflection of the County's current resources, this served as a starting point for determining any additional capacity needed to meet the pollutant load reduction targets.

Queen Anne's County has been a good steward for environment as confirmed by the numerous programs, ordinances and regulations cataloged in the County's current capacity analysis. There is no reason to believe the County will deviate from this path. With the adoption of the 2010 Comprehensive Plan and the Water Resources Element (WRE) Queen Anne's County has provided objectives, strategies and tools that will

enable the County to further promote environmental protection. The County also has numerous other programs/policies currently in place to aid in the process of nutrient reduction, as can be seen in the current capacity analysis that is an attachment to this document. With this in mind, it was the County's choice to continue its course while making every effort to increase the amount of federal, state and grant funding that will allow the County to focus on the development and implementation of even more projects that will provide nutrient reductions and aid in the achievement of the assigned targeted reduction goals.

In order to get as close as reasonably possible to achieving the Phase II WIP goals the County anticipates that similar dedication will continue through WIP implementation. However, it is anticipated that in order to achieve these goals it will take significant funding and resources that the County currently does not possess. The septic reductions may prove to be the most difficult reductions to achieve. According to the Maryland Assessment Scenario Tool (MAST) Queen Anne's County has 9,816 septic systems throughout the county. Of those, approximately 4,225 are located within the Critical Area. On average about seventy (70) septic systems per year are being upgraded to BAT systems via the Department of Environmental Health and the Bay Restoration Fund. Maryland's Phase I WIP called for an upgrade of sixty percent (2,535 systems) of the Critical Area septic systems by the year 2017. This would require the upgrade of roughly 422 systems per year for the next six years to meet that goal. This endeavor would cost around \$30,420,000 (estimates based on an upgrade of 2,535 systems at a cost of \$12,000 per system). If nutrient reduction credits were given for alternative technologies such as: sand lined trenches, low pressure dosed systems, sand mound systems and drip irrigation systems, the County would be closer to meeting its targeted goals.

It is anticipated that in order to achieve the Phase II WIP goals it will take significant funding, staffing and other resources that the County currently does not possess. As funding from state and/or federal sources or grants becomes available planning and implementation of projects becomes more feasible.

Overall, unless new technologies are realized or the deadline for meeting Final target loads is extended, the County does not foresee the ability to meet the targeted reductions with the current BMP's alone.

2. County's Phase II WIP Strategies:

- **Septic Systems:** The septic system upgrade program is managed by the Environmental Health Section of the Queen Anne's County office of the Maryland State Health Department. Therefore, the County does not maintain an annual budget for the replacement of septic system.
 - On average in Queen Anne's County there are approximately 70 septic system upgrades each year. The overwhelming majority of these are in the Critical Area. This trend is likely to continue into the near future if similar amounts of funding are available from the State. As more funding becomes available from the Bay Restoration Fund an increase in the number of septic system upgrades is likely to

occur. The County does not maintain an annual budget for the replacement of septic systems

- All new, replacement or upgrades of existing septic tanks in the Critical Area are required to be nitrogen removing systems.
- The County also has an established and on-going program that requires all septic systems to be pumped out over a five (5) year period. Therefore, there will be twenty percent (20%) of the septic systems in Queen Anne's County pumped out in each year, for a total of one hundred percent (100%) every five (5) years.
- Southern Kent Island is a priority area for septic elimination. Many of the septic systems in the area have been identified by the Department of Environmental Health as failing. Much of the area is located within the Critical Area as well as having a depth to ground water less than thirty (30) inches, ultimately contributing to the Chesapeake Bay pollution. *Areas of public health concern are intended to be served at some time in the future which represents the County Commissioner's resolve to address these health concerns. At such time a determination is made to provide public sewer service, the Comprehensive Water & Sewerage Plan will be amended to reflect the proposed timing and intended service area* (County Commissioner minutes, May 10, 2011). In 2010 the Southern Kent Island Sanitary Project study was completed. The intent of this study was to "evaluate the impacts of providing community sewer and water service to the nine identified subdivisions for the purpose of addressing public health and safety concerns." (Southern Kent Island Sanitary Project, Executive Summary page 1-2)
- As stated above, if nutrient reduction credits were to be given for alternative technologies, such as: sand lined trenches, low pressure dosed systems, sand mound systems and drip irrigation systems, the County could get closer to meeting its targeted nutrient reduction goals.

● **2013 Septic System Milestones:**

- The Department of Environmental Health will continue to upgrade septic systems within the County. An increase in funding from the Bay Restoration Fund would allow for an increase in the number of septic system upgrades each year.
- All new, replacement or upgrades of existing septic tanks in the Critical Area are required to be nitrogen removing systems.
- Twenty percent (20%) of the septic systems in Queen Anne's County will be pumped out in each of the two years, for a total of forty percent (40%) over this milestone period.
- Evaluate the impacts of providing community sewer and water service to areas of the county that have been identified by the Department of Environmental Health to have failing septic systems.
- Number of systems hooked up to an advanced WWTP.
 - 2009 – 1 dwelling & 1 institutional (airport)

- 2010 – 2 dwellings & 3 institutional (DNR at Matapeake)
 - 2011 – 2 dwellings
 - There are 4 more that are expected to be connected in the near future.
- **Stormwater:** As mentioned above, Queen Anne’s County has numerous programs/policies in place to aid in the process of nutrient reduction. The County will continue to be an environmental steward while making every effort to increase the amount of federal, state, and grant funding in order to allow the County staff to focus on the development and implementation of even more projects that will generate more nutrient reductions and assist in the achievement of the assigned targeted reduction goals. The County plans to increase the amount of BMP’s it currently puts into practice with techniques such as: rain gardens, bio-retention swales, permeable pavement and stream restoration. However, in order to attain the targeted reduction goals other BMP’s will also need to be considered. Other BMP’s likely to be implemented are; street sweeping, tree planting, living shorelines, wetland creation and enhancement, storm drain outfall improvements and others.
 - Queen Anne’s County does not have a formal Stormwater Restoration Program. The County is not subject to an MS4 permit. The Department of Public Works Engineering Division manages the design and construction of stormwater restoration projects. The County actively seeks and will continue to seek grants from federal, state and other agencies to fund projects. Where there is a reasonable chance to receive a grant we submit an application, and have been reasonably successful in obtaining grants. When allowed, “in-house” services have been used as the local match for grants. We also work with citizen and environmental groups to identify concerns and problems. Partnerships formed between the County, municipalities and citizens groups may improve the chances of winning grants. Grants will continue to be sought out during this two year period. Should any grants be awarded, planning and implementation will occur.
 - A review of the County’s Stormwater Management Ordinance and Sediment and Erosion Control Ordinance will be conducted. Areas that could possibly be amended to assist in the facilitation of stormwater retrofits or other WIP related projects will be brought to the attention of the appropriate boards and commissions and considerations for those revisions will be made.
 - Queen Anne’s County completes approximately 1 to 3 projects per year that provide stormwater quality management for 5 to 20 acres of land. Retrofit projects typically include, but are not limited to, the designing and construction of rain gardens, bio-retention swales, installation of permeable pavement, wetland enhancements, living shorelines and/or stream restoration projects. Expenditure projections for 2012 and 2013 are approximately \$25,000 per year. Funding for these projects is frequently provided by grants that come from a variety of sources such as: Maryland Department of Natural Resources, Maryland Department of the Environment, Environmental Protection Agency, the Bay Trust and others.

- Funding and resources, such as new positions, are among the improvements the County will need to make in order to accomplish even more stormwater retrofits and achieve the targeted load reduction numbers. The County supports designing and implementing more retrofit projects; however, without the necessary resources this is a very difficult task at this time. The County will continue to pursue additional revenue sources and the assistance of all interested in helping bring down the anticipated costs of these types of projects. The County expects that the combination of federal and state revenue sources as well as local “in-house” services will be needed. Queen Anne’s County is willing to work with the State, as needed, to refine the cost estimates and identifying potential funding options.
 - There are eight incorporated towns in Queen Anne’s County. At this point the County has yet to compile a list of potential SWM retrofit programs in the towns but a number of the towns have expressed interest. The County and towns have very supportive water resource elements in their comprehensive plans. Those plans lay down a sound policy framework that will help to restore stream health and protect sensitive water resources over the next two decades. There is potential for a county and town collaboration to create a program to plan and implement WIP strategies.
 - The Town of Centreville has been a key player in efforts to restore the Corsica River Watershed. Substantial progress has been made over the past six (6) years to complete projects designed to prevent runoff of pollutants into the river. In addition, the town has been in the forefront of an effort to raise community awareness about the plight of the river and what can be done to restore it. To this end, the Town will continue the trend of environmental stewardship. Centreville plans to do several projects within this milestone period. Projects may include, but are not limited to, Storm Drain Outfall Improvements, Stream Restoration Projects, Dam removal and Bio-swale creation.
- **2013 Stormwater Milestones:**
 - Review the County’s Stormwater Management Ordinance to find areas that have the possibility for amendment to assist in the facilitation of stormwater retrofits.
 - Review the County’s Sediment and Erosion Control Ordinance to find areas that have the possibility for amendment to assist in the facilitation of the WIP.
 - Complete approximately 1 to 3 projects per year that will provide stormwater quality management for approximately 5 to 20 acres of land. Retrofit projects typically include but are not limited to the designing and construction of rain gardens, bio-retention swales, installation of permeable pavement, wetland enhancements, living shorelines and/or stream restoration projects.
 - Seek collaboration between the county and towns to create a program to plan and implement WIP strategies.
 - The Town of Centreville plans to do several projects within this milestone period. Projects may include, but are not limited to, Storm Drain Outfall Improvements, Stream Restoration Projects, Dam removal and Bio-swale creation.

- Queen Anne's County is willing to work with the State, as needed, to refine the cost estimates and identifying potential funding options. The County expects that the combination of federal and state revenue sources as well as local "in-house" services will be needed.
 - The County will actively pursue grants and additional revenue sources and the assistance of all interested in helping bring down the anticipated high costs of WIP related projects.
- **Others:**
 - Queen Anne's County is one of the leaders in the State in agricultural land preservation. The County continues to pursue funding to support its preservation programs. Consideration will be given to the creation of a County program to purchase easements on farms with the intention of creating buffers strips along waterways and/or road front ditches that will absorb nitrogen and stabilize soils.
 - Queen Anne's County will continue to work cooperatively with such agencies as Soil Conservation, Natural Resource Conservation Service and University of Maryland Extension.
 - The County will seek to establish a systematic structure for tracking projects within the county that assist in reducing the nutrients that flow into the Chesapeake Bay. Also, an inventory will be taken to determine what, if any, projects in the county or towns have been recently completed and mistakenly overlooked and not accounted for in the MAST tool.
 - The Corsica River Restoration Project was formally initiated in 2005. Its objectives are to (1) restore the Corsica River and remove it from the EPA list of impaired waterways and (2) provide guidance to other watershed restoration projects in the Chesapeake Bay. The Corsica River Conservancy has been dedicated to working to reach the goals of the project. Many goals have been reached, even exceeded. Queen Anne's County will continue to support the work done by this group of local volunteers, whose projects include wetland restoration, rain garden construction, storm water retrofits, water quality monitoring, education and outreach and more.
 - Along with the Corsica River Conservancy, there are a number of other non-profit groups in Queen Anne's County. The County will continue to cooperate with these groups in their restoration efforts. As opportunities become available, the County could potentially work with stakeholders on education and outreach programs relating to the WIP.
 - Queen Anne's County will seek grant funding for various projects and programmatic changes that will assist the County with implementation of WIP strategies. For those others who may be interested in obtaining funding for restoration projects the County will establish a list of possible funding sources.
 - Queen Anne's County aims to provide enhanced protection measures and management of the Chesapeake Bay Critical Areas by updating and amending Chapter 14 The Queen Anne's County Environmental Protection Code;

Chesapeake Bay Critical Area Act. Queen Anne's County wishes to work closely with Critical Area Commission staff in developing innovative language and floodplain information, nutrient reduction, wetland and habitat protection and restoration, as well as an outreach and assessment program to educate the public about protection and management programs. This will result in a more comprehensive approach to Critical Area resource protection.

- The County seeks subject properties that are within the Chesapeake Bay Critical Area to establish natural vegetative buffers and create/restore wetlands as a means to reduce nutrient loadings entering the Chesapeake Bay and its tributaries.
- Through the use of the Council of Governments, Queen Anne's County will communicate with the towns to inform them about what the County is coordinating with respect to WIP implementation.
- Queen Anne's County will investigate alternative ways to manage and fund implementation of the WIP going into the future. An example would be creating a regional approach to implementation that could possibly allow for larger and more effective projects to occur. Another example would be to explore the agriculture sector and examine the federal cost share programs that are in place and use these as a basis to create a similar cost share program to implement non-agriculture BMP's.

- **2013 Other Milestones:**

- The County will continue to pursue funding to support its preservation programs.
- Evaluate the merits of creating a County program to purchase easements on farms with the intention of creating buffers strips along waterways and/or road front ditches that will absorb nitrogen and stabilize soils.
- Continue to work cooperatively with such agencies as Soil Conservation, Natural Resource Conservation Service and University of Maryland Extension.
- The County will seek to establish a systematic structure for tracking projects within the county that assist in reducing the nutrients that flow into the Chesapeake Bay.
- Inventory will be taken of what, if any, projects in the county or towns have been recently completed and mistakenly overlooked and not accounted for in the MAST tool.
- Work and partner with citizen and environmental groups to identify concerns and problems. Partnerships formed between the County, municipalities and citizens groups may improve the chances of winning grants.
- Continue to support the work done by the citizen and environmental groups, whose projects include wetland restoration, rain garden construction, storm water retrofits, water quality monitoring, education & outreach and more.
- Queen Anne's County will seek grant funding for various projects and programmatic changes that will assist the County with implementation of WIP strategies.

- The County will establish a list of possible funding sources for those who may be interested in obtaining funding for restoration projects.
- Queen Anne's County aims to provide enhanced protection measures and management of the Chesapeake Bay Critical Areas by updating the Queen Anne's County Environmental Protection Code; Chesapeake Bay Critical Area Program.
- Queen Anne's County wishes to work closely with Critical Area Commission staff in developing innovative language and floodplain information, nutrient reduction, wetland and habitat protection and restoration, as well as an outreach and assessment program to educate the public about protection and management programs.
- The County seeks subject properties that are within the Chesapeake Bay Critical Area to establish natural vegetative buffers and create/restore wetlands as a means to reduce nutrient loadings entering the Chesapeake Bay and its tributaries.
- Through the use of the Council of Governments, Queen Anne's County will communicate with the towns to inform them about what the County is coordinating with respect to WIP implementation.
- Queen Anne's County will investigate alternative ways to manage and fund implementation of the WIP going into the future.

3. Tracking, Verification and Reporting Methods:

There is no set structure for the reporting of all WIP related projects within the County. The Department of Public Works maintains data regarding any projects that are being planned and/or installed, the Department of Planning and Zoning keeps track of the majority of the policy changes that take place, the Department of Environmental Health administers the septic upgrades and there is currently no tracking system in place to maintain records of private property owners who install BMP's on their own property. The County will seek to establish a systematic and user friendly structure for tracking projects within the county that assist in reducing the nutrients that flow into the Chesapeake Bay. Also, an inventory will be taken to determine what, if any, projects in the county or towns have been recently completed and mistakenly overlooked and not accounted for in the MAST tool.

2013 Queen Anne's County Milestones

Phase II WIP - 2013 Milestones

Septic Systems

- The Department of Environmental Health will continue to administer Bay Restoration Funds to upgrade septic systems within the County. An increase in funding from the Bay Restoration Fund would allow for an increase in the number of septic system upgrades each year.
- All new, replacement or upgrades of existing septic tanks in the Critical Area are required to be nitrogen removing systems.
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 - 2009 – 1 dwelling & 1 institutional (airport)
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 - There are 4 more that are expected to be connected in the near future.

Stormwater Management

- Review the County's Stormwater Management Ordinance to find areas that have the possibility for amendment to assist in the facilitation of stormwater retrofits.
- Review the County's Sediment and Erosion Control Ordinance to find areas that have the possibility for amendment to assist in the facilitation of the WIP.
- Complete approximately 1 to 3 projects per year that will provide stormwater quality management for approximately 5 to 20 acres of land. Retrofit projects typically include but are not limited to the designing and construction of rain gardens, bio-retention swales, installation of permeable pavement, wetland enhancements, living shorelines and/or stream restoration projects.
- Seek collaboration between the county and towns to create a program to plan and implement WIP strategies.
- The Town of Centreville plans to do several projects within this milestone period. Projects may include, but are not limited to, Storm Drain Outfall Improvements, Stream Restoration Projects, Dam removal and Bio-swale creation.

- Queen Anne’s County is willing to work with the State, as needed, to refine the cost estimates and identifying potential funding options. The County expects that the combination of federal and state revenue sources as well as local “in-house” services will be needed.
- The County will actively pursue grants and additional revenue sources and the assistance of all interested in helping bring down the anticipated high costs of WIP related projects.

Waste Water Treatment Plants

- The County will continue to work with the municipalities within the County that seek to upgrade current WWTP or expand the current service area.
- The Town of Sudlersville has secured funding from the USDA for a sewer system upgrade and MDE has issued permits. The conveyance system from the Town of Barclay to the Town of Sudlersville is included in the approved funding. This upgrade will eliminate several septic systems within these two towns.

Other

- The County will continue to pursue funding to support its preservation programs.
- Evaluate the merits of creating a County program to purchase easements on farms with the intention of creating buffers strips along waterways and/or road front ditches that will absorb nitrogen and stabilize soils.
- Continue to work cooperatively with such agencies as Soil Conservation, Natural Resource Conservation Service and University of Maryland Extension.
- The County will seek to establish a systematic structure for tracking projects within the county that assist in reducing the nutrients that flow into the Chesapeake Bay.
- Inventory will be taken of what, if any, projects in the county or towns have been recently completed and mistakenly overlooked and not accounted for in the MAST tool.
- Work and partner with citizen and environmental groups to identify concerns and problems. Partnerships formed between the County, municipalities and citizens groups may improve the chances of winning grants.
- Continue to support the work done by the citizen and environmental groups, whose projects include wetland restoration, rain garden construction, storm water retrofits, water quality monitoring, education and outreach and more.
- Queen Anne’s County will seek grant funding for various projects and programmatic changes that will assist the County with implementation of WIP strategies.
- The County will establish a list of possible funding sources for those who may be interested in obtaining funding for restoration projects.

- Queen Anne’s County aims to provide enhanced protection measures and management of the Chesapeake Bay Critical Areas by updating the Queen Anne’s County Environmental Protection Code; Chesapeake Bay Critical Area Act.
- Queen Anne’s County wishes to work closely with Critical Area Commission staff in developing innovative language and floodplain information, nutrient reduction, wetland and habitat protection and restoration, as well as an outreach and assessment program to educate the public about protection and management programs.
- The County seeks subject properties that are within the Chesapeake Bay Critical Area to establish natural vegetative buffers and create/restore wetlands as a means to reduce nutrient loadings entering the Chesapeake Bay and its tributaries.
- Through the use of the Council of Governments, Queen Anne’s County will communicate with the towns to inform them about what the County is coordinating with respect to WIP implementation.
- Queen Anne’s County will investigate alternative ways to manage and fund implementation of the WIP going into the future.

Queen Anne's County Current Capacity Analysis

Program	Program Organization and Description	Budget	Staffing	Estimated Pace of Implementation	Options for Building Capacity	Other
<p style="text-align: center;">Watershed Management Planning</p>	<p>Queen Anne’s County has completed a number of Watershed Restoration Action Strategies (WRAS).</p> <ul style="list-style-type: none"> • Corsica River - The WRAS identifies impairments affecting water quality in the Corsica River. The Final Report provides recommendations and opportunities to improve water quality in the Corsica watershed. (See also the Stream Restoration section.) • Upper Chester - Queen Anne’s and Kent Counties worked collaboratively on this WRAS project. The purpose of this WRAS was to develop a plan to improve the water quality of the Upper Chester so that the watershed is removed from the list of impaired watersheds. <p>Kirwan and Goodhands Creek Watershed Management Plan: This management plan provided and assessment of the watershed’s condition through a synthesis of information from prior reports and water quality sampling; Geographic Information Systems (GIS) mapping and analysis; field reconnaissance of urbanized areas, forests, wetlands and shorelines and pollutant load modeling.</p>	\$0	0	On-going		
<p style="text-align: center;">Land Use Planning</p>	<p>In 2010 Queen Anne’s County adopted its updated comprehensive plan. This plan seeks to maintain Queen Anne’s County as a quintessential rural community. Goals & Objectives of the 2010 Comprehensive Plan:</p> <ul style="list-style-type: none"> • Land Use Goal 1: Growth Management, Regulations, Design/Land Use <ul style="list-style-type: none"> ○ Objective 1: Review current site design standards to further promote environmental protection, landscaping and aesthetics as well as seeking to preserve scenic beauty, vistas, views, and un-fragmented forestland and farmland through compact residential design. ○ Objective 2: Allow growth in existing Planning Areas and provide for the designated new Planning Area(s) for purposes of preserving equity in farmland, decreasing the potential number of new units in the AG and CS districts, and developing environmental and site design standards. ○ Objective 4: Seek to protect Critical Areas. ○ Objective 7: Explore the prospect of creating a pilot project using a shared wastewater system to achieve better rural design as well as concentrated development in any new Planning Areas. ○ Objective 8: Proactively manage growth that reflects the County’s vision and adequately provides for thoughtful growth. ○ Objective 9: Ensure that sufficient commercially zoned lands exist and those lands are appropriately located and provided with infrastructure. ○ Objective 10: As part of the refining of the Transfer of Development Rights (TDR) Program consider how TDRs are utilized in non-residential projects. 		4 Planners	On-going		

<p>Land Use Planning (continued)</p>	<ul style="list-style-type: none"> ○ Objective 11: Incorporate economic centers as part of the development pattern to support Planning Areas. ○ Objective 13: Support the establishment of greenbelts to define the boundary of Planning Areas and in coordination with Towns, as appropriate. ○ Objective 15: In order to insure that the Sustainable Smart Growth Management Strategy is achieved and that the county remains a quintessential rural community provide for the adequacy of facilities in the county. ● Sensitive Areas Goal 1: Resource Protection, Conservation and Preservation Strategies that Promote High Water Quality and Protect Aquatic Life with Emphasis on Critical Areas <ul style="list-style-type: none"> ○ Objective 1: Seek to implement watershed based planning to comply with nutrient Total Maximum Daily Loads (TMDLs) of receiving waterways as identified by the State. ○ Objective 2: Promote and facilitate the protection of Sensitive Areas. ● Sensitive Areas Goal 2: Conservation, Preservation and Regulation Strategies to Include Environmental Protection and Resource Conservation Measures <ul style="list-style-type: none"> ○ Objective 1: Develop steps to improve water quality in order to be removed from the State’s impaired waterway list. ○ Objective 2: Protect Sensitive Areas. ● Mineral Resources Goal 1: Undeveloped Lands where Mineral Resources are Found Remain Available for Recovery Activities Accompanied with Appropriate Reclamation Plans. <ul style="list-style-type: none"> ○ Objective 1: Promote mineral resource recovery practices that seek to minimize adverse effects on the environment and that the associated reclamation plans are compatible with adjoining land uses. ● Priority Preservation Areas Goal 1: Agricultural Land Preservation <ul style="list-style-type: none"> ○ Objective 1: Establish reliable resources for agricultural land preservation and gain significant local support in conjunction with state agricultural land preservation decisions. ○ Objective 2: Establish <i>Priority Preservation Areas</i> (PPA) that target appropriate areas of the County’s agricultural lands. ○ Objective 3: Protect and preserve agricultural land and deed-restricted open space. ● Priority Preservation Areas Goal 2: Resource Conservation/Preservation and Environmental Protection through Sustainable Smart Growth Management Policies <ul style="list-style-type: none"> ○ Objective 1: Continue to achieve the preservation of 85% deed-restricted open space when using cluster development techniques on agricultural lands. ○ Objective 2: Encourage Sustainable Smart Growth Management approaches. 					
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<p style="text-align: center;">Land Use Planning (continued)</p>	<ul style="list-style-type: none"> ○ Objective 3: Promote the protection and preservation of forest lands. ● County/Town Planning Goal 1: Foster Government Cooperation and Participation. <ul style="list-style-type: none"> ○ Objective 1: Promote inter-jurisdictional (Town/County) cooperation with respect to planning and growth related issues, including the new TDR program in order to manage growth. ○ Objective 4: Attract state resources to match County and local resources for infrastructure improvements to support designated Planning Areas. ○ Objective 6: Support Town planning by offering County resources for technical and professional services and planning assistance as incentives to achieve responsible <i>smart growth</i>. ● County/Town Planning Goal 2: Continue to Direct Growth to Designated Planning Areas. <ul style="list-style-type: none"> ○ Objective 1: Allow growth in existing Planning Areas and provide for the designated new Planning Area(s) for purposes of preserving equity in farmland, decreasing the potential number of new units in the AG and CS districts, and developing environmental and site design standards. ● Community Facilities Goal 1: Reduce Environmental Impacts Associated with Community Facilities. <ul style="list-style-type: none"> ○ Objective 2: Keep track of new technologies that reduce nitrogen and phosphorus from septic system. ○ Objective 4: Any newly designated Planning Areas and associated infrastructure should be placed outside of the 100 year floodplain and Critical Areas. ○ Objective 5: Preserve water quality. <p>In 2010 the County also adopted its Water Resource Element (WRE) in conjunction with the adoption of the updated comprehensive plan. This document provides an assessment of impacts of existing and projected growth on the County’s water resources. Among the information contained in the WRE is a Best Management Practices (BMP) Toolkit. It contains various land management techniques and strategies that can be used to reduce impacts on water resources.</p> <p>Queen Anne’s County also has various other programs, ordinances and regulations that address topics regarding Floodplain Management, Erosion and Sediment Control, Stormwater Management, steep slopes, streams and stream buffers, shore buffers, wetlands, woodlands, and habitats of threatened and endangered species. There is also an Adequate Public Facilities Ordinance, Critical Area Program, an environmental sight design manual, cluster development techniques, scenic vista buffer incentives and screening requirements.</p> <p>Some key ordinances adopted by the Queen Anne’s County since 2004 are:</p>					
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<p>Land Use Planning (continued)</p>	<ul style="list-style-type: none"> • County Ordinance No. 08-13 – The ordinance incorporates the County’s Environmental Site Design Manual into Chapter 14:4 of the Code of Public Local Laws and established a preference for non-structural practices for stormwater management plans. • County Ordinance No. 08-10 – The ordinance prohibits application of commercial or chemical fertilizer within the Critical Area Buffer during certain times of the year. • County Ordinance No. 08-09 – The ordinance requires mandatory pump-out of on-site septic systems at least once every five years. • County Ordinance No. 08-04 – The ordinance defines setbacks of 100 feet from Tidal and Non-Tidal Waters and Wetlands for principal residential structures in the Waterfront Village Center Zoning District. • County Ordinance No. 04-07 – The ordinance establishes setback from stream buffers for certain uses. • County Ordinance No. 04-06 – The ordinance adds provisions requiring vegetative improvements to stream buffers when development activity occurs on adjacent land. 				
<p>Land Conservation</p>	<p>Queen Anne’s County participates in several conservation-oriented programs.</p> <ul style="list-style-type: none"> • <u>Maryland Agricultural Land Preservation Foundation (MALPF)</u> -Administered by the Maryland Department of Agriculture purchases agricultural preservation easements which restrict development on prime farmland and woodland. • <u>Rural Legacy</u> - This program is designed to preserve large blocks of contiguous open space containing value because of its agricultural, natural and cultural resources. • <u>Deed Restricted Open Space</u> • <u>Non-Contiguous Open Space</u> - The NCD is a cluster subdivision technique designed to preserve prime agricultural land and natural resources. This technique requires a ratio that results in 85% of the total lands being placed in deed-restricted open space to 15% of the lands permitted for development. With the use of the NCD technique, development “rights” can be moved and transferred to another parcel, thereby clustering the development rights from two or more properties onto one “developing” property, while maintaining the ratio of 85/15. • <u>Transferable Development Rights (TDR)</u> - Transferable Development Rights or TDRs involve the transfer of development rights from a transferor parcel to a receiving parcel, in order to increase residential or nonresidential development potential on the receiving parcel, with the intent of creating areas of open space and protecting agricultural lands. • <u>Purchase of Development Rights (PDR)</u> - In September 2008 the County Commissioners established a Purchase of Development Rights Program to enable the County to acquire by gift, purchase, devise, bequest or grant easements in gross or other rights to restrict the use of agricultural land or 		<p>1</p>	<p>On-going</p>	<p>With more funding comes more preservation.</p>

<p style="text-align: center;">Land Conservation (continued)</p>	<p>woodland as may be designated to maintain the character of the land as agricultural land or woodland.</p> <ul style="list-style-type: none"> • <u>Maryland Environmental Trust (MET)</u> - Administered by the Maryland Department of Natural Resources and governed by a citizen Board of Trustees. The goal is the preservation of open land, such as farmland, forest land, and significant natural resources. The primary tool for accomplishing this goal is the use of conservation easements or voluntary agreements between a landowner and MET. • <u>Program Open Space (POS)</u> - Uses state funds for the acquisition of parklands, forests, wildlife habitat, natural, scenic and cultural resources for public use. • <u>Conservation Reserve Enhancement Program Easements (CREP)</u> - This state program receives funding from the Department of Natural Resources to protect water quality by removing marginal agricultural land from production and replacing it with best management practices including riparian buffers, stabilization of highly erodible soils and restoration of wetlands. The lands are then conserved through a permanent conservation easement. • <u>Conservation Reserve Program (CRP)</u> - This federal program is administered by the Farm Service Agency. The program focuses on implementing conservation practices on highly erodible crop and pastureland by taking the land out of production for 10-15 years thereby improving water quality and wildlife habitat. • <u>Forest Conservation Act</u> – Maryland law requires that all development projects must conserve a certain proportion of forest land in a permanent easement. In some cases, additional forest must be planted and added to the permanent easement. <p>In 2010 Queen Anne’s County adopted its updated comprehensive plan. In doing so it also adopted its Priority Preservation Area (PPA). Queen Anne’s County’s placed approximately 119,004 acres of undeveloped land with potential for preservation into its PPA. This represents approximately 50% of the land within the County and 59% of land zoned Agricultural (AG) or Countryside (CS).</p> <p>Queen Anne’s County also has a Land Preservation, Parks, and Recreation Plan (LPPRP), 2006. The purpose of the plan, in addition to continuing the county’s eligibility for annual POS funding, the plan:</p> <ul style="list-style-type: none"> • Assesses the county’s progress in: <ul style="list-style-type: none"> ○ Meeting the leisure service needs of QA County residents. ○ Preserving open space. ○ Preserving agricultural land and activities. ○ Conserving important natural resources. • Identifies the impacts on county park, recreation and land preservation services caused by recent changes in stat and local funding mechanisms. • Illustrates the combined effect of county, state and federal land preservation 					
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	programs on the landscape and future character of Queen Anne’s County.					
Forest Conservation Programs	<p>UPLAND FOREST CONSERVATION: The intent of the Queen Anne’s County Forest Conservation Program is to ensure that high quality forested areas are retained and appropriate areas afforested by requiring consideration and protection of forest resources early in the design phase of development projects <u>outside of the Chesapeake Bay Critical Area</u>.</p> <p>CRITICAL AREA FOREST CONSERVATION: The intent of forest conservation in the designated portions of Critical Area in Queen Anne’s County is to: maintain and increase the forested vegetation of the Critical Area; conserve forests and developed woodlands and provide for expansion of forested areas; minimize the removal of trees associated with development; and manage forested areas in such a way as to maximize values for wildlife, water quality, timber, recreation, and other resources.</p>		1 Land Use Planner that as part of the review process examines the forest conservation requirements for the proposed projects.	On-going		
Critical Area Program	<p>Queen Anne’s County has a Critical Area Program and a Critical Area Ordinance that give special emphasis to managing land use in the sensitive coastal and tidal areas within 1000’ of tidal waters. To assist in the protection of riparian buffers and wetlands along shorelines the Critical Area:</p> <ul style="list-style-type: none"> • The Critical Area program imposes a minimum 100’ Critical Area Buffer (200’ in new RCA applications) from mean high water of any Chesapeake Bay tidal waters, tributary or perennial stream. • The Buffer may be expanded up to a maximum of 300’ to include hydric soils, highly erodible soils and steep slopes. • This buffer is also increased to include adjacent non-tidal wetlands and Wetlands of State Concern including their additional 100’ buffer. • Development activity is generally not permitted in the Buffer (some exceptions). • Any disturbance within the Buffer requires Buffer Mitigation. • Development activity or disturbance within the Critical Area located outside the Buffer requires Buffer Establishment consisting of planting a multi-layer riparian forest providing water quality, shoreline protection and habitat. • Total acreage of forest cover within the Critical Area shall be maintained or increased. <p>The local program is currently being updated in order to meet the following goals as outlined in HB 1253:</p> <ul style="list-style-type: none"> • Fill gaps in operational structure and enhance state-local coordination. • Clarify and strengthen enforcement procedures. • Streamline the program in order to enhance consistency, predictability, and fairness. • Protect the tidal shoreline from negative impacts of growth and development. 		1 Land Use Planner that as part of the review process examines the CA requirements for the proposed projects.	On-going		
Wetlands	COUNTY RESOURCE PROTECTION STANDARDS: Queen Anne’s County has Resource Protection Standards that apply to development that occurs on a lot that contains floodplains, steep slopes, streams and stream buffers, wetlands, erosion hazard	0	0			

	areas, woodlands, shore buffers, or habitats for threatened or endangered species. If two or more resources are present on the same area of land, the most restrictive resource protection standard shall apply.					
Vegetated Buffers	<p>VEGETATIVE FILTERS GRANT: In 2010 Queen Anne’s County was awarded a grant from Maryland Department of Natural Resources – Chesapeake & Coastal Watershed Service Unit. The objective of this program is to identify stream buffer and critical area buffer areas that could benefit from increases in natural vegetative buffer widths as a means to reduced nutrient loadings entering the Chesapeake Bay and its tributaries. Suitable areas will be planted with vegetation that will provide additional nutrient removal benefits. To date approximately 1,400 trees and shrubs have been planted. More are expected to be planted in the fall of 2011 and spring of 2012.</p> <p>FOREST CONSERVATION: Newly established stream buffers totaled 49 acres in 2009. (See Forest Conservation Programs.)</p> <p>COUNTY RESOURCE PROTECTION STANDARDS: Queen Anne’s County has Resource Protection Standards that apply to development that occurs on a lot that contains floodplains, steep slopes, streams and stream buffers, wetlands, erosion hazard areas, woodlands, shore buffers, or habitats for threatened or endangered species. If two or more resources are present on the same area of land, the most restrictive resource protection standard shall apply.</p>	\$100k for the Veg. Filter Grant.	Two Planners spent some time administering the grant during the spring and fall planting season. Also a few Parks employees spent approx. a day planting the trees and shrubs.	1 Land Use Planner that as part of the review process examines the forest conservation requirements and the Resource Protection Standards for the proposed projects.		
Vegetated Buffers (continued)						
Stream Restoration	<p>CORSICA TARGETED WATERSHED: In 2005 the State of Maryland initiated a comprehensive pilot program to develop best management practices and implement the procedures, partnerships, assessment, and tools necessary to restore a single sub-watershed of the Chesapeake Bay. The Corsica River watershed was selected and the first “Targeted Watershed.” The goal of this Pilot Project is to restore the Corsica through implementation of the recommendations of the WRAS.</p> <p>KIRWAN AND GOODHANDS CREEK WATERSHED MANAGEMENT PLAN: This management plan provided and assessment of the watershed’s condition through a synthesis of information from prior reports and water quality sampling; Geographic Information Systems (GIS) mapping and analysis; field reconnaissance of urbanized areas, forests, wetlands and shorelines and pollutant load modeling.</p> <p>COUNTY RESOURCE PROTECTION STANDARDS: Queen Anne’s County has Resource Protection Standards that apply to development that occurs on a lot that contains floodplains, steep slopes, streams and stream buffers, wetlands, erosion hazard areas, woodlands, shore buffers, or habitats for threatened or endangered species. If two or more resources are present on the same area of land, the most restrictive resource protection standard shall apply.</p>	0	0	1 Land Use Planner that as part of the review process examines the Resource Protection Standards for the proposed projects.		

Program	Program Description	Budget	Staffing	Estimated Pace of Implementation	Options for Building Capacity	Other
Stormwater Restoration Programs	<ul style="list-style-type: none"> Queen Anne's County does not have a formal Stormwater Restoration Program. The County is not subject to an MS4 permit. The Department of Public Works engineering Division manages the design and construction of stormwater restoration projects. We do look for grants from federal, state and other agencies to fund the projects. Where there is a reasonable chance to receive a grant we submit an application, and have been reasonable successful in obtaining grants. When allowed "in-house services have been used as the local match for the grants. We also work with citizen and environmental groups to identify concerns and problems, which has been helpful in obtaining grants 	<ul style="list-style-type: none"> Confirm Recent Budget, Capital and Operating: \$25,000 per year Describe Expenditures on retrofits: We designed and constructed rain gardens, bio-swales, stream and restoration projects. Expenditure projections for 2012 and 2013: \$25,000 per year 	<p>Number of FTEs: Roughly 0.5 person per year. Contractors supplement staffing?: \$0</p> <p>Other: We have contracted with consultants to prepare studies and designs/</p>	<p>Provide an estimation of the average annual pace of stormwater retrofit implementation (acres/year).</p> <p>We complete 1 to 3 projects per year that provides stormwater quality management for 5 to 20 acres of land.</p>	<p>Intentions for stormwater fee system: None.</p>	

Program	Program Description	Budget	Staffing	Estimated Pace of Implementation	Options for Building Capacity	Other
Septic System Upgrades	<ul style="list-style-type: none"> All new, replacement or upgrades of existing septic tanks are required to be nitrogen removing systems. The septic system upgrade program is managed by the Environmental Health Section of the Queen Anne's County 	<ul style="list-style-type: none"> Recent Budget, Capital and Operating: \$0 Current Annual Expenditure 	<p>Number of FTEs: 3 people in Environmental Health</p> <p>Contractors supplement staffing? 0</p>	<p>Number of upgrades per year: Approximately 70 tanks per year</p>	<p>Plans for capacity enhancements? None</p>	

	office of the Maryland State Health Department.	on upgrades? \$0 - Expenditure projections for 2012 and 2013: \$0	Other: 0			
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