

**Review of Local Comprehensive Plans for Language Related to WIP III
Central Shenandoah Planning District Commission
April 23, 2020**

Summary:

After reviewing the comprehensive plans for the 5 counties and 5 cities in the Central Shenandoah Planning District Commission (CSPDC) region, it was found that the Phase III Chesapeake Bay Watershed Implementation Plan (WIP III) related language exists but varies for each locality. Many localities include language for improving water quality and conservation and possible implementation of priority BMPs for the region; however, WIP III is not specifically mentioned. Few localities mention previous phases of WIP and the Chesapeake Bay Total Daily Maximum Load (TDML). Ordinances and code were also reviewed for each locality and less WIP related language was found.

Augusta County, City of Harrisonburg, City of Staunton and City of Waynesboro have a Municipal Separate Sewer System (MS4) program and also are required to adopt a Virginia Stormwater Management Program (VSMP). Non-MS4 localities that have adopted a VSMP include Rockingham County, Rockbridge County and the City of Buena Vista.

Augusta County (2014/2015):

Augusta County's current comprehensive plan, adopted in 2015, includes the following language in the Goals, Objectives, and Policies section under Updates and Natural Resources (Page 15 and 54):

The Natural Resources section of the plan has been updated to reflect significant changes in both federal and state law and regulations since the development of the 2007 Comprehensive Plan. Most significantly, the state has absorbed the Tributary Strategies into the Chesapeake Bay TMDL and developed Phase I and Phase II Watershed Implementation Plans for that TMDL. This action has prompted the creation of new programs and required changes to existing programs. Specifically, the state has passed legislation and implemented Urban Nutrient Management regulations, amended the Virginia Erosion and Sediment Control Program, completely revamped the Virginia Stormwater Management Program, and passed legislation and implemented Resource Management Plan regulations in an attempt to provide some level of predictability for nutrient reduction for the agricultural community. In addition to those changes which were largely prompted by the need to reduce nutrient loading in the Chesapeake Bay, the state has provided multiple updates to the 303-D "Impaired Waters" list to EPA and has passed legislation and implemented Non-Conventional Sewage Disposal regulations. Each of these changes required the county to evaluate our existing plans and revise accordingly.

In addition to actions prompted by federal and state requirements, the county has added cluster provisions to the General Agriculture District and created a new district, Rural Conservation, to encourage clustered residential developments in rural areas where there are pressures to develop residentially. The county has also adopted a Source Water Protection Ordinance, made revisions to the county's stormwater and floodplain ordinances, and is currently in the process of adding the Dam Break Inundation Zones to the tax maps and the Geographic Information System. This section of the plan has been updated to reflect these changes and additions.

WIP language found under the Natural Resources section of Goals and Objectives (p 54)

GOAL 1: Protect the fundamental integrity of the county's natural environmental systems into the long-term future for the enjoyment and benefit of local citizens, businesses, tourism, and recreation.

Objective A: Protect the water, air, natural systems, and water supplies of Augusta County.

Objective B: Protect the natural and scenic beauty of the county's mountains and rural landscapes.

Objective C: Protect the county's forests and special and distinctive habitats.

Objective D: Participate in state and regional programs to protect local waterways, the James and Shenandoah Rivers, and the Chesapeake Bay.

Policy 1: Easements & Land Protection. Promote other conservation easement and land acquisition programs. Land protection techniques could be targeted to active agricultural lands, large and interconnected forest patches, natural heritage conservation sites and unique natural features, important scenic vistas, and important stream valleys.

Policy 2: Chesapeake Bay TMDL. Develop and implement a Chesapeake Bay TMDL Action Plan in accordance with the county's MS4 permit. For areas outside of the county's MS4 boundary, work with the Department of Conservation & Recreation's Shenandoah Valley Office to identify, prioritize, and implement appropriate measures in the Chesapeake Bay TMDL that also fulfill the

goals and objectives noted in this Comprehensive Plan. Seek grant and in-kind funding to implement demonstration projects and innovative practices.

Policy 3: Economic Benefits. Inform the citizens and decision-makers about the economic benefits provided by the county's natural resources. Compile data on the direct and indirect economic benefits from prime farmland, forestry, tourism, recreation, water supply, water quality, and flood control that are made possible by the county's natural resources base. Communicate these benefits effectively so that natural resources issues can be considered fairly in land use and growth discussions.

GOAL 2: Promote efficient and effective stormwater strategies appropriate to each Policy Area to protect water quality and control flooding.

GOAL 3: Promote development layout that protects natural and scenic resources by design

GOAL 4: Sustain the natural resources base that allows for productive, healthy, and environmentally-sound agricultural and forestry land uses.

Objective A: In the Rural Conservation and Agricultural Conservation Areas, adopt policies and incentives to maintain parcel sizes that allow for meaningful agricultural and forestry operations.

Objective B: Promote agricultural and forestry operations that protect water quality and natural resources.

Policy 1: Agricultural Best Management Practices (BMPs) and Resource Management Plans. Work with partner agencies, including the Headwaters SWCD and the Natural Resources Conservation Service, to promote agricultural BMPs and nutrient management and resource management planning.

Policy 2: Forestry BMPs & Management Plans. Work with partner agencies, including the Virginia Department of Forestry, to promote forest management plans and forestry BMPs.

Policy 3: BMP Incentives. Consider providing incentives for agricultural and forestry BMPs whereby landowners that implement BMPs are offered tax or other financial incentives.

Policy 4: National Forest Management Plans. Continue to work with the U.S. Forest Service to promote the county's interests during any future revisions of the George Washington/Thomas Jefferson National Forest Management Plans.

Objective C: Raise citizen and landowner awareness about land protection and possible conflicts with agriculture and forestry.

GOAL 5: Protect the quality and quantity of groundwater as the primary source of drinking water for county residents and as a source of water to springs and headwater streams.

Objective B: Protect the quality and quantity of groundwater that serves private, individual wells and provides source water to springs and headwater streams.

Policy 1: On-Site Sewage Disposal System Maintenance. Encourage proper use and maintenance of all on-site sewage disposal systems, including septic systems, through education and outreach. Educational materials should be distributed with building permits for properties that will use wells and on-site sewage disposal systems. Seek additional grants and encourage

landowner participation in existing programs providing funding for inspection and pump-out of existing on-site sewage disposal systems.

Policy 2: Mandatory Pump-Out of Septic Systems. Consider a mandatory septic pump-out program adapted from the requirements of the Chesapeake Bay Preservation Act and Regulations.

GOAL 6: Protect the citizens, property, and natural resources of the county from flood damage by integrating public safety with environmental protection.

Objective B: Promote natural flood control strategies that protect public safety and help restore streams and riparian areas.

WIP language found in the Agriculture section of Goals and Objectives (p 17)

Policy 1: Best Management Practices (BMPs). Encourage BMPs through cooperation with those federal, state and county agencies, including the Headwaters Soil and Water Conservation District, the Natural Resources Conservation Service, and the Virginia Department of Forestry, that provide technical support to the farming and forestry industries.

Augusta County Code includes the following language in Chapter 9 Environment, under section 8 Pollution Prevention Plan (Page 17):

The pollution prevention plan shall include effective best management practices to prohibit the following discharges:

- 1. Wastewater from washout of concrete, unless managed by an appropriate control;*
- 2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;*
- 3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and*
- 4. Soaps or solvents used in vehicle and equipment washing.*

Augusta County Code includes the following language in Chapter 9 Environment, under section 9 Additional Control Measure to Address a TMDL (Page 17):

In addition to the requirements of §9-6 through §9-8 of this chapter, if a specific Waste Load Allocation (WLA) for a pollutant has been established in a TMDL implementation plan and is assigned to stormwater discharges from a construction activity, additional control measures must be identified and implemented by the operator so that discharges are consistent with the assumptions and requirements of the WLA in a state board approved plan

Bath County (2014 – 2019):

Bath County's current comprehensive plan, adopted in 2014, includes the following language referencing WIP III. The following language is found in the Wastewater Treatment section of the Chapter on Public Utilities (Ch 8, p 6):

The majority of the miles of wastewater collection and distribution/collection lines are in serviceable condition. However, lines in and around Hot Springs and Ashwood are old and may have to be replaced. The increased demand for wastewater treatment capacity will cause the Bath County Service Authority to upgrade the existing plant or build a new plant. Because of size limitations and engineering problems it may not be economically feasible to upgrade the existing plant at its present location. If a new plant is required, location, size, design, technology, Department of Environmental Quality (DEQ) and Health Regulations are important considerations. Wastewater treatment plants over 650,000 gallons per day that discharge into the Chesapeake Bay estuary and watershed must meet strict requirements. Removing I&I (inflow and infiltration) water from the collection lines is an ongoing project for the Authority. Initiatives to protect the Chesapeake Bay and the environment, development, and demands to treat wastewater by regional treatment plants or by separate Bath County Service Authority plants are expected to increase.

The goals and objectives listed under the section Natural Environment Goals reference water quality and DEQ standards (Ch 6, p 10).

GOALS

- 1. Preserve and protect air quality in Bath County and the vicinity.*
- 2. Reduce potential environmental problems associated with Karst topography.*
- 3. Conserve the County's soil resources and protect prime soils.*
- 4. Protect local water resources and unique aquatic habitats.*
- 5. Minimize flood-related damage to structures, personal property, and public facilities.*

Objective E: Work with the Department of Environmental Quality to monitor mineral resource exploration activities so as to ensure groundwater resources are not contaminated.

Objectives in Land Use Goals Section directly reference WIP III BMPs (Chapter 11, p 25).

Objective D: Preserve and protect the water quality, scenic beauty, and natural character of the Cowpasture and Jackson Rivers, as well as Back Creek, by using established Best Management Practices.

In Appendix B: Implementation of Smart Growth Principles (B -2).

Smart Growth Principle #2 Utilize Compact Building Design: Use compact development coupled with onsite best management practices to improve environmental outcomes.

Bath County Code includes the following language regarding stormwater management in Chapter 10 Erosion and Sediment Control, under section 1-3 Local Erosion and Sediment Control Program (Page 5):

Pursuant to section 62.1-44.15:54 of the Code of Virginia, Bath County hereby establishes a VESCP program and adopts the regulations promulgated by the Board (for the effective control of soil erosion and sediment deposition to prevent the unreasonable degradation of properties, stream channels, waters and other natural resources. In accordance with § 62.1-44.15:52 of the Code of Virginia, any plan approved prior to July 1, 2014 that provides for stormwater management that addresses any flow rate capacity and velocity requirements for natural or man-made channels

Highland County:

<http://www.highlandcova.org/Compplan/Complist.htm>

The County of Highland's current comprehensive plan, adopted in 2011, includes the following language regarding water quality in the Water Quality Section of the Natural Resources Chapter

Water resources and water pollution in Virginia are regulated by the Department of Environmental Quality (DEQ), the State Water Control Board, and the U.S. Environmental Protection Agency. The Clean Water Act (CWA), Section 402, established the National Pollutant Discharge Elimination System to limit pollutant discharges into streams, rivers and bays. DEQ administers the system in the state of Virginia and calls it the Virginia Pollutant Discharge Elimination System (VPDES). VPDES permits are required for all point source discharges to surface waters.

DEQ also regularly monitors samples of the watersheds for designated uses which include: aquatic life support, fish consumption, swimming and drinking water.

Rockbridge County:

<https://www.co.rockbridge.va.us/DocumentCenter/View/1301/Rockbridge-Comp-Plan-2016?bidId=>

The County of Rockbridge's current comprehensive plan, adopted in 2016, includes the following language regarding water quality and TMDL standards in the Surface Water Quality Section of the Natural Environment Chapter (Ch 2, p 58):

Surface water quality in Virginia is monitored by the Department of Environmental Quality (DEQ) in order to determine how well the waters meet the goals of the Federal Clean Water Act (CWA) for fishable and swimmable waters. Sources of drinking water must meet Federal and State water quality standards. Section 303(d) of the CWA requires each state to submit a Total Maximum Daily Load (TMDL) priority list to EPA in even-numbered years. This TMDL rating for impaired waters is based on the severity of the impairments, including beneficial uses lost, the number and type of pollutants and the presence of endangered species.

Under the section titled Natural Environment Goals, the plan lists the following objectives and strategies related to water quality BMPs (Ch 2, p 76 – 78).

GOAL: Protect and preserve the scenic beauty and environmental quality of the County.

Objective: Ensure that mining, silvicultural and development projects are designed so as to minimize the impact on the natural environment and view sheds.

Strategy 1. In all site development, the natural features of the land, such as native ground covers and trees, should be preserved for conservation and aesthetic reasons.

Strategy 2. On steep mountain slopes, mining of minerals, clear cutting of timber and development is discouraged.

Strategy 3. Visual and environmental impact should be considered in permitting mining operations.

Strategy 4. The County should investigate ways to preserve the wild and scenic character of its rivers and streams.

Strategy 5. Maintain the protected status of the Goshen Pass area, the Rich Hole area and other fragile and scenic areas within the County.

Strategy 6. With the assistance of appropriate groups and agencies, the County should identify fragile and scenic areas to protect and preserve.

Strategy 7. Power lines should be confined to existing corridors where possible, and consideration should be given to use of underground lines. Possible impacts of power lines on human health and scenic quality should be taken into consideration as well.

Strategy 8. Cluster developments with green belts and development below the crest of hills should be encouraged.

Strategy 9. The scenic quality of the County's road corridors should be preserved through available programs and legislation.

Strategy 10. The County should continue its educational program to publicize the importance of litter control and to maximize recycling efforts.

Objective: Meet Federal and State standards for air and water quality in all areas of the County.

Strategy 1. Work with the Department of Environmental Quality (DEQ) to establish a permanent air quality monitoring station in the Lexington/Buena Vista area.

Strategy 2. Work with State and local organizations to develop a surface and groundwater monitoring program.

Strategy 3. All public sewage systems should comply with the effluent requirements of Public Law 92-500 secondary treatment levels or water quality standards as appropriate.

Strategy 4. Continue to enforce the County Erosion and Sediment Control Ordinance.

Strategy 5. Encourage new development around existing population centers where both public water and sewer service, and other community facilities, are provided or are planned.

Strategy 6. Development along the foot slopes of the Blue Ridge Mountains and other areas should be carefully managed through appropriate ordinances in order to preserve the groundwater resources of the area.

Objective: Ensure that septic tank effluent, solid waste, chemicals, agricultural waste and other pollutants do not contaminate the groundwater supply.

Strategy 1. Develop a wellhead protection program to safeguard public water supply systems.

Objective: The limitations of natural features such as air, water, slope, geology, soils and natural habitat should be recognized when considering residential, commercial, industrial and agricultural growth.

Strategy 1. Areas within the one hundred year floodplain should be designated for agriculture, forestry, recreation and other such uses not requiring permanent structures.

Strategy 2. Development should be controlled in areas where the natural land slopes are greater than 15 percent. On slopes greater than 25 percent, residential development should be discouraged.

Strategy 3. Development in karst areas should be regulated in order to reduce the hazards of ground subsidence and collapse and the hazard of groundwater pollution through development and implementation of a comprehensive sinkhole ordinance.

Strategy 4. Watersheds above public water supply sources should be protected to the maximum extent possible.

Strategy 5. Because of the common occurrence of stagnant air conditions in the County, land uses that generate high air pollutant discharge should be discouraged.

Strategy 6. Potential natural resource sites should be identified and managed for sustainable use.

Strategy 7. Agricultural soils of highest local quality should be identified and preserved as an important natural resource

Rockbridge County Code includes the following language on water quality in Chapter 12 Erosion and Sediment Control, Section 5 Local erosion and sediment control program (Ch 12, p 6)

Section 12-5. Local erosion and sediment control program. A. Pursuant to §10.1-562 of the Code of Virginia, the County of Rockbridge hereby adopts the regulations, references, guidelines, standards and specifications promulgated by the Board and any local handbook or publication for the effective control of soil erosion and sediment deposition to prevent the unreasonable degradation of properties, stream channels, waters and other natural resources.

Rockbridge County Code includes the following language on stormwater BMP's and a stormwater pollution prevention plan in Chapter 27 Stormwater, Section 4 Stormwater pollution prevention plan (Ch 27, p 6)

The Stormwater Pollution Prevention Plan (SWPPP) shall include the content specified by Section 9VAC25-870-54 and shall include an approved erosion and sediment control plan, an approved stormwater management plan, a pollution prevention plan for regulated land-disturbing activities, and a description of any additional control measures necessary to address a TMDL, and must also comply with the requirements and general information set forth in Section 9VAC25-880-70, Section II [stormwater pollution prevention plan] of the general permit.

Rockbridge County Code includes the following language on stormwater BMP's in Chapter 27 Stormwater, Section 7 Pollution prevention plan; content of plans (Ch 27, p 9)

The Pollution Prevention Plan, required by 9VAC25-870-56, shall be developed, implemented, and updated as necessary and must detail the design, installation, implementation, and maintenance of effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:

- (1) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;*
- (2) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and to stormwater; and,*
- (3) Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.*

B. The Pollution Prevention Plan shall include effective best management practices to prohibit the following discharges:

- (1) Wastewater from washout of concrete, unless managed by an appropriate control;*

(2) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;

(3) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;

(4) Soaps or solvents used in vehicle and equipment washing.

Rockingham County:

The County of Rockingham's current comprehensive plan, adopted in 2004, includes the following language regarding water quality and BMPs in the Natural Resources Section of the Strategies, Policies and Actions Chapter (Ch 2, p 67-68):

Due to several mandatory and voluntary water quality protection programs initiated by EPA, the State of Virginia, and the Chesapeake Bay states. The first is the TMDL program and the second is the Shenandoah and Potomac River Basins Tributary. Nutrient Reduction and Nutrient Cap Strategies. The Federal Clean Water Act requires states to identify and clean up water bodies not in compliance with Federal and State water quality standards. Virginia has been required to prepare a list of such impaired waters and to determine the total maximum daily (pollutant) loads or TMDLs for each impaired water. Rockingham County has 20 TMDL studies on the list.

While the TMDL program has as its basis the Clean Water Act and the law enforcement backing of the Federal government, the Shenandoah and Potomac River Basins Tributary Nutrient Reduction and Nutrient Cap Strategies are based on agreements between the Chesapeake Bay watershed states, agreements that are not federally enforced. In 1987, Virginia, Maryland, Pennsylvania and the District of Columbia signed a Chesapeake Bay Agreement that recognized the role of nutrient pollution (nitrogen and phosphorus) in the Chesapeake Bay's water quality problems. In the agreement, the states set the goals of reducing controllable annual nitrogen and phosphorus loads into the Bay waters by 40 percent by 2000 and of capping them at that level thereafter. With the cooperation of Rockingham County and other localities in the Southern Shenandoah Region, a tributary strategy was developed and adopted in 1996. Currently, the Shenandoah and Potomac Basins have not met the 40% nitrogen reduction goal for either point or non-point sources, though the current rate of implementation of Best Management Practices should close the gap for non-point sources. Rockingham County has indicated to DEQ its willingness to work on closing the gap and capping pollutant levels, and wants urban areas in the watershed to do the same.

Under Natural Resource Strategies, Policies and Actions, Rockingham lists the following goals and strategies for improving water quality.

GOAL 1. Preserve the Quality of Natural Resources. (surface water, groundwater, air, soil, quiet, night sky)

Strategy 1.1: Protect water quality

Actions: 1.1.1. Consider requiring nutrient management plans for all intensive agricultural enterprises (which are now required only for poultry).

1.1.2. Continue to participate in TMDL (total maximum daily [pollutant] load) water quality studies for impaired streams.

1.1.3. Seek continued and expanded funding for agricultural BMPs.

1.1.4. Continue to follow and update the current Board of Supervisors' position in the Interim Nutrient Cap Strategy for the Shenandoah and Potomac River Basins.

1.1.5. Request extensive public participation in all water quality programs sponsored by Department of Environmental Quality (DEQ) and other governmental agencies.

- 1.1.6. Take a comprehensive approach to stormwater management.*
- 1.1.7. Limit impervious surfaces through lot coverage ratios; amend the Zoning and Subdivision Ordinances to accomplish this.*
- 1.1.8. Pursue better mapping of floodplains in the County and re-examine floodplain regulations to ensure safety from flood damage.*
- 1.1.9. Promote the setting aside of floodplain lands as open space during the development process to form the backbone of a countywide greenway system for flood protection, water quality protection, wildlife habitat preservation, and passive recreation.*
- 1.1.10 Take advantage of opportunities to respond to state water quality standards during scheduled reviews.*
- 1.1.11 Gather more information to better manage ground water resources.*
- 1.1.12 Explore remediation for impaired ground water quality in the Bridgewater/Muddy Creek area.*
- 1.1.13 Support the efforts of the Pure Water 2000 Forum.*
- 1.1.14 Encourage low-impact development whenever appropriate and feasible.*
- 1.1.15 Promote alternative wastewater treatment systems where appropriate.*
- 1.1.16 Encourage a low density and dispersed pattern of septic fields in the rural areas in order to reduce the chances of groundwater contamination.*

Rockingham County Code includes the following language on water quality in Chapter 6C Management of Post Construction Stormwater Runoff, Section 1 Purpose and Authority (Ch 6C, p 1):

The purpose of this chapter is to ensure the general health, safety, and welfare of the citizens of Rockingham County and protect the quality and quantity of state waters from the potential harm of unmanaged stormwater; including protection from land-disturbing activities causing degradation of properties, water quality, stream channels, and other natural resources. The physical, chemical, biological, and hydrologic characteristics and the water quality and quantity of the receiving state waters shall be maintained, protected, or improved. All control measures used shall be employed in a manner that minimizes impacts on receiving state waters.

Additionally, this chapter is to provide a framework for the administration, implementation, and enforcement of the Virginia Stormwater Management Act (VSM Act) and to delineate the procedures and requirements to be followed in connection with state permits issued by Rockingham County, the VSMP authority, pursuant to the Clean Water Act (CWA) and the Virginia Stormwater Management Act and while at the same time providing flexibility for innovative solutions to stormwater management issues.

Rockingham County Code includes the following language referencing BMPs and TMDL standards in Chapter 6C Management of Post Construction Stormwater Runoff, Section 6 Stormwater pollution prevention plan; contents of plans (Ch 6C):

d) A pollution prevention plan that identifies potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from the construction site and describe control measures that will be used to minimize pollutants in stormwater discharges from the construction site must be developed before land disturbance commences.

(e) In addition to the requirements of subsections (a) through (d) of this section, if a specific WLA for a pollutant has been established in a TMDL and is assigned to stormwater discharges from a construction activity, additional control measures must be identified and implemented by the operator so that discharges are consistent with the assumptions and requirements of the WLA in a state water control board-approved TMDL.

(f) The stormwater pollution prevention plan must address the following requirements, to the extent otherwise required by state law or regulations and any applicable requirements of a state permit:

- (1) Control stormwater volume and velocity within the site to minimize soil erosion;*
- (2) Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion;*
- (3) Minimize the amount of soil exposed during construction activity;*
- (4) Minimize the disturbance of steep slopes;*
- (5) Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;*
- (6) Provide and maintain natural buffers, at least fifty (50) feet, around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible;*
- (7) Minimize soil compaction and, unless infeasible, preserve topsoil;*
- (8) Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating, or other earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding fourteen calendar days. Dormant areas exceeding six (6) months will require permanent stabilization. Permanent stabilization must be completed within seven (7) days of final grade and will be required to maintain proper sediment controls until vegetated. In arid, semiarid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures must be employed as specified by the county*
- (9) Utilize outlet structures that withdraw water from the surface, unless infeasible, when discharging from basins and impoundments.*

Rockingham County Code includes the following language on BMPs in Chapter 6 Management of Post Construction Stormwater Runoff, Section 8 Pollution prevention plan; content of plans (Ch 6C)

The pollution prevention plan shall include effective best management practices to prohibit the following discharges:

- (1) Wastewater from washout of concrete, unless managed by an appropriate control;*
- (2) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;*
- (3) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and*
- (4) Soaps or solvents used in vehicle and equipment washing.*

City of Buena Vista:

The City of Buena Vista's current comprehensive plan, adopted in 2011, includes the following language regarding protection of watersheds in the Surface Water Section of the Natural Resources Chapter (Ch 3, p 8):

Watersheds can be difficult to manage since they are usually covered by a number of separate municipalities with different governments and land use policies. It is important for communities to recognize that flood levels and water quality can be very much affected by land use activities that occur elsewhere in a watershed. The City of Buena Vista is participating with eleven other communities in developing a regional water supply plan for the Upper James River watershed. Each locality is mandated through the Virginia Department of Environmental Quality (DEQ) to develop a local water supply plan. The purpose of the plan is threefold: (1) ensure that adequate and safe drinking water is available to citizens; (2) encourage, promote, and protect all other beneficial uses of water resources; and (3) encourage, promote, and develop incentives for alternative water sources. As its name indicates, this plan is focused on water supply and does not address water quality.

The Strategies for Action chart of the Natural Resource Chapter of the City's Comprehensive Plan address water quality, forest buffers, and storm water runoff, which are all a part of the WIP III goals (Ch 3, p 20-21):

GOAL 1: The City of Buena Vista will achieve a balanced and sustainable use of natural resources in the community to accommodate the economic and noneconomic needs of residents, industries and visitors. To achieve this goal, the following critical success factors must be accomplished:

Objective 1: Adopt regulations that protect sensitive areas including but not limited to steep slopes, floodplains, and stream corridors.

Objective 2: Educate the public on the importance of protecting environmentally sensitive areas.

Objective 3: Manage a system of water resources that functions as a healthy, integrated whole, and provides a long-term public benefit from enhanced environmental quality.

Action 3A: Partner with organizations to provide educational programs that highlight the environment and use protected spaces as outdoor classrooms.

Action 3B: Review and update existing zoning and subdivision regulations as necessary to ensure the goals of environmental preservation are being achieved.

Action 3C: Require the planting of indigenous tree species.

Action 3D: Develop an urban forest management plan.

Action 3E: Review and update landscaping ordinances.

Action 3F: Develop programs to educate citizens about the effects of stormwater runoff on water quality, wellhead protection area boundaries and related pollution prevention measures.

Action 3G: Prepare and adopt a wellhead protection management plan.

Action 3H: Sponsor joint cleanup and rehabilitation programs including the City, SVU, community organizations and residents.

Action 3I: Manage floodplains, rivers, groundwater, and other water resources for multiple uses including flood and erosion hazard reduction, fish and wildlife habitat, open space, recreation, and water supply.

Action 3J: Participate in regional, broad-based watershed studies to achieve effective and long-term flood protection and a healthy riverine environment.

Action 3K: Work with local organizations to protect natural habitat areas, particularly along riparian corridors.

Action 3L: Enhance Access to the Riverfront

Action 3M: Develop an inventory of brownfields.

Action 3N: Secure resources to assist with assessment, remediation and redevelopment of brownfields.

Action 3O: Incorporate green building technologies and construction practices.

Action 3P: Implement the recommendations of the Upper James River Basin Water Supply Plan.

Action 3Q: Evaluate current wastewater treatment facility and develop a strategic plan to consistently meet discharge limits and compliance with water quality standards

Additionally, under the section titled “Current Initiatives”, the City’s comprehensive plan also refers to a Regional Water Supply Plan (Ch. 6, p 6-8).

The City of Buena Vista is participating with eleven other communities in developing a regional water supply plan for the Upper James River watershed. Each locality is mandated through the Virginia Department of Environmental Quality (DEQ) to develop a local water supply plan. According to the regulation (9 VAC 25-780), the purpose of the plan is threefold: 1. Ensure that adequate and safe drinking water is available to all citizens of the Commonwealth; 2. Encourage, promote, and protect all other beneficial uses of the Commonwealth’s water resources; and 3. Encourage, promote, and develop incentives for alternative water sources. This plan for the Upper James River watershed is expected to be completed and submitted to DEQ in Fall 2011. The plan, covering a thirty year timeframe, will be the basis for water supply decisions.

The City of Buena Vista’s Code includes the following language on water management in Chapter 14, Article III Erosion and Sedimentation Control, Section 14-46:

This article shall be known as the "Erosion and Sediment Control Ordinance of the City of Buena Vista." The purpose of this article is to prevent degradation of properties, stream channels, waters and other natural resources of the city by establishing requirements for the control of soil erosion, sediment deposition and nonagricultural runoff and by establishing procedures whereby these requirements shall be administered and enforced.

City of Harrisonburg:

The City of Harrisonburg’s current comprehensive plan, adopted in 2018, includes the following language regarding protection of watersheds in the Water Resources section of the Sustainability and Environmental Stewardship Chapter (Ch 10, p 3-5). This section directly mentions the Chesapeake Bay TMDL programming.

Water Quality: Water quality has become an important issue due to several mandatory water quality protection programs initiated by U.S. Environmental Protection Agency (US EPA), the Commonwealth of Virginia, and states contributing into the Chesapeake Bay watershed. The first is the Total Maximum Daily Load (TMDL) program, and the second is the US EPA requirement for the City to maintain a Virginia Pollutant Discharge Elimination System (VPDES) permit related to its Municipal Separate Storm Sewer System (MS4).

Total Maximum Daily Load (TMDL) Program: The Federal Clean Water Act requires states to identify and clean up water bodies not in compliance with Federal and state water quality standards. Virginia has been required to prepare a list of such “impaired waters” and to determine the total maximum daily loads or TMDLs for each impaired waterway. The TMDL reflects the total pollutant loading a water body can receive and still meet water quality standards with a built-in margin of safety. In 1992, the US EPA promulgated regulations regarding the development of TMDLs.

The City’s storm sewer system drains into six different sub watersheds. Ultimately, all six subwatersheds drain into the Shenandoah River, the Potomac River, and the Chesapeake Bay. The Chesapeake Bay does not meet water quality standards and is listed as impaired. Due to this impairment, the US EPA issued a Chesapeake Bay TMDL. The needed pollutant reductions have been divided among the six states in the Chesapeake Bay watershed. As a result, the City of Harrisonburg has an allocated pollution reduction requirement for phosphorus, nitrogen, and sediment. The City’s plan to reduce these pollutants can be found in the City’s Chesapeake Bay TMDL Action Plan which is maintained by the Department of Public Works.

In addition to the Chesapeake Bay TMDL, six local TMDL studies have been completed on smaller watersheds within the City: two for Blacks Run, two for Cooks Creek, and two for Smith Creek. For each stream, the Virginia Department of Environmental Quality (VA DEQ) has determined that violations occur for both fecal coliforms and benthic organisms. Fecal coliforms are a range of bacteria present in fecal wastes from warm-blooded animals. Their presence indicates the presence of bacteria harmful to humans. Benthic communities are made up of bottom dwelling organisms in streams. The number and types of benthic organisms found in a stream are indicators of pollution levels.

Virginia has chosen to develop a Blacks Run TMDL Implementation Plan that encourages voluntary actions to meet Federal water quality standards. The Smith Creek TMDL Implementation Plan includes a waste load allocation, or quantifiable reduction, of fecal coliform assigned to the City. To address both voluntary and mandatory actions to meet these standards, the City has implemented a number of measures to reduce fecal waste loads, such as a sanitary sewer inspection and management program to prevent sewage leaks, education programs on septic pump-outs, and pet waste clean-up education programs. The VA DEQ is in the first stages of updating the Blacks Run TMDL with specific waste load allocations assigned to local contributors of pollutant loading.

The benthic TMDL studies for the watersheds identify the sources of pollution that adversely affect benthic organisms. Again, non-point source pollution is the problem, and in the City, sedimentation is the chief culprit. Harrisonburg continues to address these problems by such measures as: improved

sedimentation and erosion control regulations and enforcement, stormwater management best management practices (BMPs), a stream bank stabilization program, planting of riparian vegetation, and increased street cleaning. While Virginia's approach has been to seek voluntary measures to reduce pollution loads, if such measures do not result in improved water quality in streams, the state may require that measures be implemented to meet Federal water quality standards. EPA has the legal authority to require enforcement of TMDLs.

Virginia Pollutant Discharge Elimination System (VPDES) General Permit: The Department of Public Works manages a Stormwater Management Program under the Virginia Pollution Discharge Elimination System (VPDES) General Permit for Stormwater Discharges: Small Municipal Separate Storm Sewer Systems (MS4s) issued by the VA DEQ. The Permit requires compliance with six minimum control measures:

- 1. Public Education and Outreach on Stormwater Impacts*
- 2. Public Involvement/Participation*
- 3. Illicit Discharge Detection and Elimination*
- 4. Construction Site Stormwater Runoff Control*
- 5. Post Construction Stormwater Management in New Development and Redevelopment*
- 6. Pollution Prevention/Good Housekeeping for Municipal Operations*

The most recent stormwater management regulations were adopted into the Code of Virginia in 2012, and became effective July 1, 2013. The local implementation of the stormwater regulations and the MS4 permit are the key vehicles to address many of the urban sector strategies identified in the Commonwealth of Virginia's Chesapeake Bay TMDL Watershed Implementation Plan, the Commonwealth's blueprint for attaining its water quality goals. This program is managed by both the Department of Public Works and the Department of Planning and Community Development. First permitted in 2003, after the City became a census-designated urbanized area, the City is currently in the 2013-2018 permit cycle and has received approvals for the five-year overall Program Plan and Annual Chapter 10, Environmental Stewardship and Sustainability, page 10-5 Reports to date. The City's MS4 Program Plan and Chesapeake Bay TMDL Action Plan are requirements of the City's MS4 permit. This plan has been approved by the VA DEQ for the 2013-2018 permit cycle, and is expected to be updated in the next permit cycle, 2018-2023. In 2017, City Council adopted the Stormwater Improvement Plan (SWIP) that will be used to inform the update of the Action Plan.

The Goal Objectives and Strategy Statements Chapter addresses water quality and references nutrient reduction for the Chesapeake Bay TMDL (Ch 16, p 16-21).

GOAL 14. To support the City with community facilities, infrastructure, and services, which allow for sustainable growth and are accessible, equitable, efficient, cost-effective, and sensitive to the environment.

Objective 14.1 To continue to provide an adequate supply of high quality, environmentally sound public water service.

Strategy 14.1.1 To construct needed water supply, treatment, storage, and pressure improvements to provide effective and efficient water services.

Strategy 14.1.2 To work with Rockingham County and the US Forest Service to protect the Dry River water supply area.

Strategy 14.1.3 To continue to implement the recommendations of the Raw Water System Management Plan (RWSMP) and the Potable Water System Management Plan (PWSMP).

Objective 14.2 To continue to provide dependable, environmentally sound sanitary sewer service.

Strategy 14.2.1 To continue to implement the recommendations of the Sanitary Sewer Management Plan.

Strategy 14.2.2 To continue to support the Harrisonburg-Rockingham Regional Sewer Authority (HRRSA) to meet voluntary and other goals for nutrient reduction of the Chesapeake Bay Total Maximum Daily Load (TMDL).

Strategy 14.2.3 To eliminate septic systems in the City by promoting a septic to sanitary sewer connection conversion incentives program and/or offering financial assistance to encourage connections to the sanitary sewer system.

Objective 14.3 To improve stormwater and local water quality by reducing sediment, phosphorus, nitrogen, and bacteria loading into Blacks Run and its tributaries.

Strategy 14.3.1 To continue complying with the Small Municipal Separate Storm Sewer System (MS4) permit by implementing policies, programming, and maintenance activities to meet the required six minimum control measures: public education and outreach, public involvement, illicit discharge detection and elimination, construction site stormwater runoff control, post-construction stormwater management, and good housing keeping and pollution prevention.

Strategy 14.3.2 To continue coordinating stormwater management in cooperation with James Madison University, Rockingham County, and the Virginia Department of Transportation.

Strategy 14.3.3 To use stormwater management techniques, that are both effective control measures and enhance the urban environment with aesthetically pleasing features, such as expansion of urban tree canopy and bioretention.

Strategy 14.3.4 To continue implementing the Stormwater Utility Fee and credit program to fund stormwater controls, maintain public facilities, and encourage management of stormwater on private property.

Strategy 14.3.5 To explore the feasibility of the City participating in the Community Rating System administered by the Federal Emergency Management Agency (FEMA) for the potential benefit of reducing flood hazard insurance rates.

Strategy 14.3.6 To implement the City's Stormwater Improvement Plan.

Strategy 14.3.7 To continue working with the Virginia Department of Environmental Quality, the Shenandoah Valley Soil & Water Conservation District, and other partners to improve stormwater and water quality in Blacks Run and local waterways.

Strategy 14.3.8 To require mandatory inspections of remaining septic systems.

Harrisonburg City Code includes the following language on tracking sewer pumping, a recommended BMP for the region, in Title 7 Water and Sewer, Chapter 3 Sewer System, Section 43 Construction, inspection and maintenance of COSS and ACOSS:

Within six (6) months notification by the Department of Public Utilities but no later than December 31, 2019, every owner of a COSS in the city shall submit to the Director documentation that the COSS was inspected and pumped within the previous five (5) years. Thereafter, every such COSS shall be inspected and pumped at least once every five (5) years. Inspections shall be performed in a manner approved by the Director of Public Utilities and shall be performed by an Accredited Septic System Inspector or by an individual licensed or certified for such by the Virginia Department of Professional and Occupational Regulation or other state agency. A copy of the inspection report shall be furnished to the Director. Upon having the AOSS pumped or serviced the owner of the septic system shall submit documentation to the Director demonstrating that such pumping or service was performed. The pumping, service, and documentation required by this section shall only be performed by an individual or entity approved by the Director.

City of Lexington:

The City of Lexington's current comprehensive plan, adopted in 2007, includes the following language regarding protection of watersheds in the Water Resources section of the Natural Resources Chapter (Ch 3, p 3-5).

Because all the surface water in the City eventually flows into the Maury River, Lexington is part of the Maury River drainage area or watershed which drains 103,450 acres. Because the Maury feeds into the James River which, in turn, feeds into the Chesapeake Bay, all of the City of Lexington and Rockbridge County are within the James River and Chesapeake Bay watersheds.

The Woods Creek Watershed drains a 5.2 square mile area that includes parts of Rockbridge County and much of the City of Lexington. Its headwaters span from the Brushy Hills to the hills comprising Jacob's Ladder to the east of Route 11 South. Creeks and other water resources within the Woods Creek Watershed include Sarah's Run, Spring Branch, Town Branch and several small, unnamed spring branches and intermittent streams. Land use in the upper reaches is primarily woodland and agricultural fields. The Lexington Country Club golf course and its surrounding suburban residential development are in this watershed.

The Water Quality section of Chapter 3 references plans to develop Bioretention and raingardens, which are identified as one of the region's BMPs (ch 3, p 9 -14). The section also references community initiatives which promote water quality in the local area; thus, meeting one the programmatic actions outlined for the Central Shenandoah Valley.

The agricultural areas in the upper reaches of the watershed are mostly used for hay and for grazing cattle. When livestock are permitted to graze right to the stream banks, they destroy the buffer of native trees, shrubs and herbaceous plants which protect the streambank and filter out pollutants from surface runoff entering the stream. When they enter the stream to drink, their waste contributes fecal coliform bacteria and unwanted nutrients to the water. Livestock and farm equipment also compact the soils reducing their permeability. Fertilizers and herbicides used on agricultural fields can also be washed into nearby streams. The Natural Bridge Soil and Water Conservation District and the Virginia Cooperative Extension Service both, work with farmers to implement programs to address these problems.

In the more urban parts of the watershed, especially where Woods Creek and Sarah's Run flow through Lexington, other problems arise. As forests and farmlands have been converted to residential and commercial use, there are significant increases in the volume, rate and frequency of stormwater runoff. Much of the ground in these areas is covered by impermeable surfaces like roads, rooftops, and parking lots. Runoff is increasingly converted from sheet flow across the ground into ditches and pipes which focuses the runoff into limited areas. In areas where the native streambank vegetation has been removed, this leads to increased downstream flooding and erosion along the banks of creeks which are carrying higher water volumes.

This runoff contains pollutants such as petroleum hydrocarbons, heavy metals, and chlorides from the streets, pesticides, herbicides, nitrogen, and phosphorous from residential back yards, and sediment from construction sites. All of these pollutants have adverse effects on the health of Woods Creek. Nitrogen and phosphorous from fertilizers feed algal blooms, depriving fish and other aquatic organisms of dissolved oxygen. Sediment can clog streams, stagnating flow and reducing water quality. Hydrocarbons from gasoline and oil, chlorides from road salt, herbicides, pesticides, and heavy metals such as lead are poisonous to aquatic life, and do not simply "go away" when water flows out of Woods Creek, but persist and can cause problems for years. The temperature of runoff from impermeable surfaces and an absence

of trees and shrubs shading the creek leads to an increase in the temperature of the water which also contributes to a decline in stream health.

Since 2003, local citizen volunteers involved with the Virginia Save our Streams program have been conducting periodic water quality testing at two sites in Woods Creek located within the City to evaluate its ecological health. Their testing protocol involves sampling benthic macroinvertebrates, organisms which live in and on the streambed. By determining the types and numbers of these macroinvertebrates, it is possible to indirectly estimate stream health since different species will predominate depending on water quality.

Recognizing that the long term health of Woods Creek, a critical local natural resource, was seriously threatened, the City of Lexington, in cooperation with Rockbridge County, developed a strategy to preserve and enhance the health of Woods Creek and its watershed, which it has been working to implement since 2001. The first component of this strategy is to reestablish the “riparian buffer”, a permanent area of trees, shrubs and other vegetation, along the banks of Woods Creek and its tributaries, to reduce the impact of upland sources of pollution by trapping, filtering, and converting sediments, nutrients and other chemicals contained in water runoff. Adequate buffers are estimated to be nearly 70 to almost 100 percent effective at filtering nutrients and sediment from runoff. Riparian buffers also moderate runoff and protect the stream bank. In the parts of the watershed where agriculture is the main land use, these buffers should be supplemented by measures to protect the streams from livestock by fencing and providing alternative water sources. Buffers have been reestablished along most of the publicly owned portions of Woods Creek, most planted by community volunteers. Because not everyone is comfortable walking in such natural areas manicured access pathways through the buffer must also be established and maintained.

OBJECTIVE 1: The City should create and maintain a number of groomed access points through the riparian buffer to Woods Creek between Ross Road and Lime Kiln Road to provide enhanced access to the creek.

OBJECTIVE 2: The City should continue its efforts to address the declining water quality in Woods Creek and its watershed including restoration of the riparian buffer along streams, installation of bioretention and biofiltration facilities for new and existing development, and community education and involvement.

OBJECTIVE 3: Support efforts to improve the Woods Creek water quality monitoring system to document changes in water quality and flow to better assess the effectiveness of mitigation measures, provide adequate warning of any increases in impairment and provide an accurate basis for identifying specific sources of excessive runoff and pollutants.

Under Storm Water Runoff and Storm Water Management:

The stormwater management regulations for the City should be updated to require that water quality measures be incorporated for stormwater management plans for all new development. Because much of the development within the watershed is taking place in the headwaters in Rockbridge County, the County should also be encouraged to adopt these regulations.

OBJECTIVE 1: Update the City’s stormwater management regulations to require that water quality measures be addressed for all significant new development and encourage Rockbridge County to adopt these regulations for the entire Woods Creek Watershed.

OBJECTIVE 2: Consider the creation and implementation of a City best practices integrated pest management program to minimize use of toxic chemicals including pesticides, herbicides, fertilizer, cleaning products, road salt and other pollutants.

OBJECTIVE 3: Continue to collaborate with Rockbridge County to implement water quality improvement goals throughout the Woods Creek Watershed.

OBJECTIVE 4: Work with Rockbridge County to designate the Woods Creek Watershed as one of special concern, subject to specific ordinances tailored to address water quality improvement concerns.

City of Staunton:

The City of Staunton's current comprehensive plan, adopted in 2007, includes the following language regarding protection of watersheds in the Open Space/Environment section of the Goals & Objectives Chapter. (Ch 1, p 1). Objective #6 directly references BMPs.

Goal: Practice good stewardship of the environmental resources within and surrounding the City by protecting environmentally sensitive areas, preserving open space and natural habitat (including dark skies), minimizing pollution of all kinds, and encouraging sustainability and conservation practices.
Objectives 1: Promote only appropriate uses for open space, floodplains, environmentally sensitive areas, and agricultural-forestal districts.

Objective 2: Support efforts to preserve Betsy Bell and Mary Gray Mountains by enhancing the use of public areas and exploring the possibility of conservation easements.

Objective 3: Support development of greenways in and those that connect to the City.

Objective 4: Encourage the implementation of Mitigation Strategies for the City included in the Central Shenandoah Valley Hazard Mitigation Plan.

Objective 5: Take a watershed approach to protect water resources, through efforts such as reducing pollution and litter, encouraging stream buffers and restoration of riparian areas, increasing tree canopy, preserving open space, and educating the public.

Objective 6: Continue implementation of stormwater best management practices.

The Public Use/Government section of the Goals & Objectives Chapter includes language on storm water design projects (Ch 1, p 1-9).

Objective 1: Encourage extension of water and sewer utilities only where it is planned, and discourage extension of water and sewer utilities into areas where they might promote the development of identified environmentally critical areas.

Objective 2: Encourage the undergrounding of utilities whenever possible in private and public development, redevelopment and relocation.

Objective 3: Continue to fund and seek funding for critical stormwater control facilities and flood mitigation activities

Staunton City Code includes the following language on riparian buffers and water management in Chapter 13 Environment, Section 12 Riparian Buffers:

Except as otherwise provided in Division I of this title, any land adjacent to state waters, wetlands adjacent to these state waters, and/or isolated wetlands shall provide buffers for the purposes of retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff into these waters.

Staunton City Code includes the following language on BMPs and stormwater management in Chapter 13 Environment, Section 10 Comprehensive Drainage Plan

Pollution Prevention Plan, required by 9 VAC 25-870-56 of the VSMP Permit Regulations, shall be developed, implemented, and updated as necessary and must detail the design, installation, implementation, and maintenance of effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:

(i) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;

(ii) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and to stormwater; and

(iii) Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.

The pollution prevention plan shall include effective best management practices to prohibit the following discharges:

(i) Wastewater from washout of concrete, unless managed by an appropriate control;

(ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;

(iii) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and

(iv) Soaps or solvents used in vehicle and equipment washing.

City of Waynesboro:

The City of Waynesboro’s current comprehensive plan, adopted in 2018, does not include any language regarding WIP III. The section titled Infrastructure mentions tree planting and storm water management as priority project, which fall under the region’s BMPs.

Project #3: Begin installing street trees at a rate necessary to achieve a 30% canopy in Waynesboro’s developed areas by 2028 and begin to reclaim hardscape areas for parkland if possible or stormwater basins at minimum ... Trees and greenspace are essential to the quality of life for the residents of Waynesboro. The City should aim for ambitious goal of 30% urban coverage within the next 10 years, and then set the bar higher - 40% by 2040. The existing coverage is estimated at 25% based upon GIS data. A more accurate LIDAR mapping assessment should be undertaken. The same is true for greenspace; seize any opportunity to reclaim impervious surfaces for both aesthetic and functional purposes.

The City of Waynesboro’s Land Use Guide, adopted in 2008, provides the following recommendations regarding water quality in the chapter titled “Environment” (ch 7, p 35 -36).

The following recommendations and implementation strategies pertain to the environment, particularly floodplains and stormwater management.

Recommendation 1: Implement the stormwater management program.

Strategy 1: Investigate a wide variety of funding mechanisms to establish a revenue stream.

Recommendation 2: Identify method to undertake—and fund—mapping for the floodplain, differentiating between the 100-year floodplain and the floodway.

Recommendation 3: Identify methods to undertake—and fund—mapping of the Jones Hollow Dam inundation zone.

Recommendation 4: Pursue stream restoration programs related to the urban trout fishery program for the South River.

Recommendation 5: Protect local wetland areas.

Recommendation 6: Continue to encourage river clean-up and good practices associated with maintaining and improving water quality.

Strategy 1: Establish riparian buffer requirements to filter sediment prior to reaching streams and rivers.

Strategy 2: Work with Augusta County to develop a plan and/or action steps to reduce non-point source pollution.

Strategy 3: Organize citizen groups and/or develop volunteer programs for river clean-up and education.

Strategy 4: Work with Augusta County to develop a source water protection program.

Waynesboro City Code includes the following language on stormwater management in Chapter 30 Environment, Article III Stormwater Management:

The purpose of this article is to ensure the general health, safety, and welfare of the citizens of the City of Waynesboro and protect the quality and quantity of state waters from the potential harm of unmanaged stormwater, including protection from a land disturbing activity causing unreasonable degradation of properties, water quality, stream channels, and other natural resources, and to establish procedures whereby stormwater requirements related to water quality and quantity shall be administered and enforced.

Pollution prevention plan; contents of plans: Pollution prevention plan, required by 9VAC25-870-56, shall be developed, implemented, and updated as necessary and must detail the design, installation, implementation, and maintenance of effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:

- (1) Minimize the discharge of pollutants from equipment and vehicle washing, wheel washwater, and other washwaters. Washwaters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;*
- (2) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and to stormwater; and*
- (4) Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.*

The pollution prevention plan shall include effective best management practices to prohibit the following discharges:

- (1) Wastewater from washout of concrete, unless managed by an appropriate control;*
- (2) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;*
- (3) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and*
- (4) Soaps or solvents used in vehicle and equipment washing.*

Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by appropriate controls.

Next Steps:

Next steps may include developing model WIP III language that could be incorporated into local comprehensive plans under goals and objectives. The CSPDC could work with localities to identify their priority BMPs that match the region's WIP III goals and work with localities to include these priority BMPs in their goals. Since locality participation in WIP III is voluntary, it may be more difficult for non-MS4 localities to adopt WIP III language in their plans. The CSPDC may continue to work with localities to identify their preferences for WIP II language adoption.