



Roanoke County Stormwater Advisory Committee



Meeting 2 – Existing Stormwater Program and Cost

October 10, 2013

Agenda

- Welcome
- Recap of Meeting #1 - Questions
- Overview of Current Program and Costs
- Program Gaps
- Identification of Issues and Priorities
- Next Steps



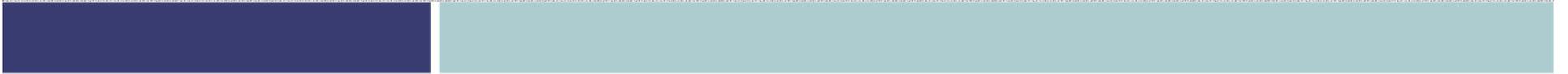
Meeting #1 Recap

- Reviewed mission, process, and major stormwater management challenges.
- Minutes were distributed to the committee and posted on the website.
- Future minutes will include a running list of questions that couldn't be addressed at the meeting to ensure proper follow-up.
- Questions or feedback before we begin?





Program Summary



Current Program and Preliminary Program Gaps



- Represents a snapshot of the County's program.
- Based on a review of existing documents and staff interviews.
- Gaps driven by:
 - New MS4 permit.
 - New Virginia Stormwater Management Regulations.
 - Roanoke River watershed TMDLs (bacteria and sediment).
 - Drainage complaints.
 - Stewardship of the County's water resources.



Organization – Roanoke County

- Community Development – Development Services
 - Primary oversight responsibility.
- Supported by:
 - Community Development - Planning
 - General Services
 - Parks, Recreation & Tourism
 - Communications & Information Technology
 - County Attorney
 - Management & Budget
 - Human Resources
 - County Administrator



Organization – Town of Vinton

- Memorandum of Understanding with the County for plan review and inspection services.
- Town Department of Public Works:
 - Infrastructure maintenance
 - Sweeping
 - Leaf collection
- Department of Planning & Zoning:
 - MS4 permit program
 - Education and outreach



Cost Center Approach

- Allows for thinking outside of organizational lines in preparation for the next question:
“What should the County be doing?”
- Three major groupings:

Development
Services

MS4 & TMDLs

Infrastructure
Maintenance &
Improvements



Current Program – Development Services



■ ***Erosion and Sediment Control (E&SC) Program***

- Four (4) inspectors ensure compliance with regulations.
- Program is compliant with Virginia regulations.
- Inspections of open projects are on a prioritized schedule.
- The County provides plan review and inspection services for Vinton.
- E&SC is also a requirement of the MS4 permit.



Current Program – MS4 and TMDLs



■ *Public Outreach, Education & Involvement*

- Partnership with Clean Valley Council.
- Support activities such as Earth Summit, Energy Expo, stream cleanups, and storm drain stenciling.
- Pet waste stations are located in many parks.



Current Program – MS4 and TMDLs



- ***Illicit Discharge Detection & Elimination***
 - The County conducts mapping of the storm sewer system.
 - Inspection of approximately 50 outfalls annually by one inspector – the same person is also inspecting stormwater management facilities.
 - Program is primarily driven by complaints.



Current Program – MS4 and TMDLs



■ ***Post-Construction Stormwater Management***

- One inspector inspects approximately 60 facilities annually (need to increase to 178 to meet requirements).
- Same inspector coordinates with private owners/contractors on maintenance questions.
- County started inspecting Vinton's stormwater facilities in August.

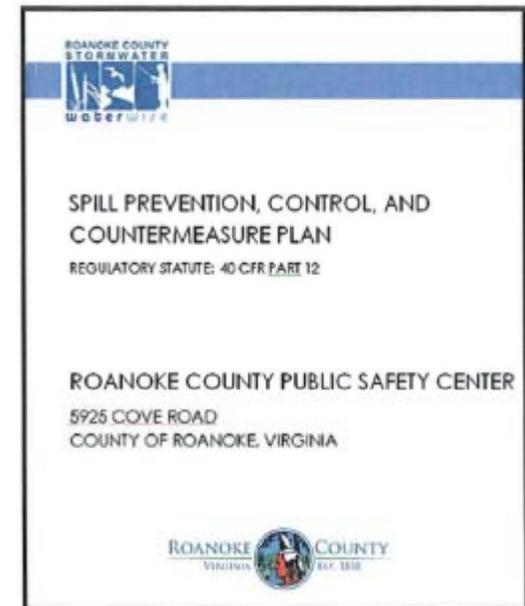


Current Program – MS4 and TMDLs



■ *Pollution Prevention/Good Housekeeping*

- Spill Prevention, Control & Countermeasure Plans developed for some County sites.
- Household hazardous waste collection.
- Limited training of staff in general environmental awareness.



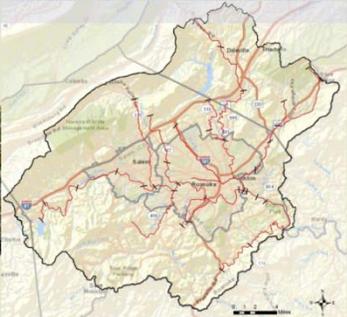
Current Program – MS4 and TMDLs



■ *Roanoke River TMDL*

- County and Town staff have attended meetings held by DEQ during development of the implementation plan.
- The County will be required to develop an action plan to meet the timeline specified in the implementation plan.
- Draft plan due by end of 2013.

Please join us for an Open House to learn about stream health in the Upper Roanoke River watershed!



Tuesday, June 11, 2013 3:00–8:00 p.m.
Roanoke Civic Center

Stop by anytime during the Open House. We will have information and presentations about the following:

- ▲ Water Monitoring
- ▲ Aquatic life
- ▲ The Clean-up Plan to address pollution in the Roanoke River watershed
- ▲ Local water quality initiatives
- ▲ How **YOU** can help make a difference!



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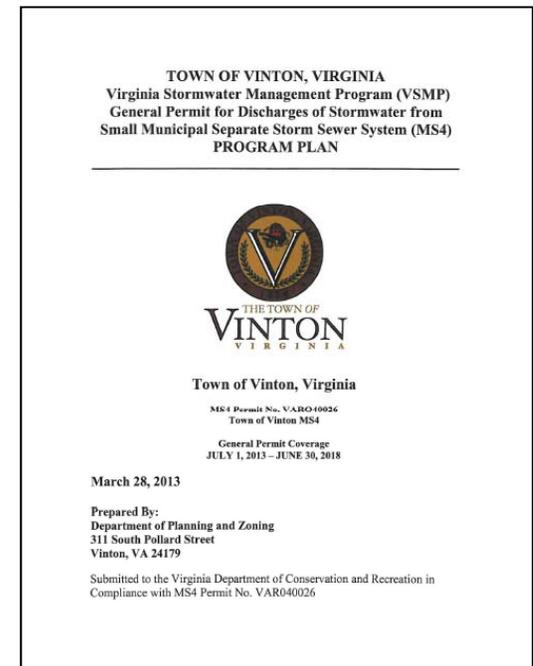


Current Program – MS4 and TMDLs



■ *Town of Vinton*

- Vinton has its own MS4 permit and program – coordinates public outreach, annual reporting, employee training, etc.
- Street sweeping and leaf collection.
- County provides plan review, E&SC inspection, and stormwater facility inspection.



Current Program – Infrastructure Maintenance & Improvements



■ **Storm Drainage System**

- Eight (8) staff are dedicated to infrastructure maintenance and improvements – perform approximately 4 major projects and 25 emergency projects annually. No CIP projects.
- The program is complaint driven.
- Most work is performed by County staff – contractors are rarely used.
- Main problems are erosion, pipe separation, and system capacity.
- The County coordinates with VDOT and private property owners.



Current Program – Infrastructure Maintenance & Improvements



■ *Stormwater Management Facilities*

- County-owned facilities are mowed by crews from Community Development and Parks, Recreation & Tourism.
- Other maintenance is performed as-needed and as budgets allow at County-owned facilities – no budget is allocated for this.



Current Program – Infrastructure Maintenance & Improvements



■ *Streams*

- Erosion in streams is addressed when safety or infrastructure is a concern when funding is available.
- Parks staff keeps a list of erosion issues in the parks.
- There is no budget allocated to address these issues.



Current Program – Infrastructure Maintenance & Improvements



■ *Town of Vinton*

- The Town has responsibility for maintaining its own storm sewer infrastructure and Town-owned stormwater management facilities.



Current Program Costs

■ *Roanoke County - Estimated Cost*

- Based on employee time spent on stormwater related tasks and operating expenses related to stormwater (supplies, equipment, materials, etc.).
- There is also a stormwater reserve fund for unanticipated expenses - \$200,000/year.

	Administration	Development Services	MS4 and TMDLs	Infrastructure Maintenance & Improvements	Total
Personnel	\$87,090	\$511,428	\$212,964	\$515,860	\$1,327,342
Operating		\$146,380	\$2,750	\$264,569	\$413,699
Total	\$87,090	\$657,808	\$215,714	\$780,429	\$1,741,041



Current Program Costs

■ *Vinton - Estimated Cost*

- Based on employee time spent on stormwater related tasks and operating expenses related to stormwater (supplies, equipment, materials, etc.).
- Development services for stormwater provided by the County.

	Administration	Development Services	MS4 and TMDLs	Infrastructure Maintenance & Improvements	Total
Personnel	\$25,312		\$30,532	\$181,390	\$237,235
Operating			\$106,551	\$35,610	\$142,161
Total	\$25,312		\$137,083	\$217,000	\$379,396



Program Gaps



Program Gaps - Staffing

■ *Mapping, Tracking, Analysis*

- Community Development does not have staff to update stormwater mapping and inspection tracking data and to perform analyses on pollutant loadings and reductions for TMDL action plans.
- **Driver** – MS4 permit requires updated stormwater mapping; TMDLs require additional system analysis.
- **Question** – How should the County provide the GIS support needed to keep stormwater layers updated and support TMDL action plan development/scenario analysis?



Program Gaps – Development Services



■ ***VSMP Construction Permit Administration***

- The County will be required administer the state's VSMP construction permit starting in July 2014.
- **Driver** – New Virginia Stormwater Management Regulations effective July 2014.
- **Question** – What resources are needed to successfully implement the new requirements?
- **Question** – What resources are necessary to maintain current plan review time goals (if those are to be kept) and meet construction site oversight responsibilities?



Program Gaps – Development Services



■ *Increase in Small Onsite Stormwater Management Facilities*

- Stringent new stormwater management standards will result in a larger number of smaller stormwater management facilities located throughout a new development.
- **Driver** – New Virginia Stormwater Management Regulations.
- **Question** – What resources and oversight are needed to ensure these facilities are properly designed and constructed?



Program Gaps – MS4 and TMDLs



■ ***Public Education and Outreach Program***

- The County's public education and outreach efforts will need to identify high priority issues, target audiences, and reach 20% of each audience annually.
- **Driver** – New MS4 permit requirement.
- **Question** – What resources will be required to implement this requirement; how much can be done through regional partnerships?



Program Gaps – MS4 and TMDLs



■ *Illicit Discharge Program*

- The County's current program to address illicit discharges (dumping, leaking equipment, swimming pool discharges, etc.) is primarily reactive.
- **Driver** – MS4 permit sets minimum standards for dry weather inspections of outfalls and enforcement.
- **Driver** – Stewardship issue; these discharges can have a significant local impact on aquatic life.
- **Question** – How will the County develop a more proactive program to identify and take action against illicit discharges?



Program Gaps – MS4 and TMDLs



■ *Stormwater Pollution Prevention Plans (SWPPPs)*

- The County must develop SWPPPs for all “high priority facilities.”
- **Driver** – New MS4 permit requirement.
- **Question** – What additional resources are needed to develop and implement these SWPPPs?



Program Gaps – MS4 and TMDLs



■ *Stormwater Training Program*

- The County must develop a comprehensive program to train staff on pollution prevention.
- **Driver** – New MS4 permit requirement.
- **Question** – How aggressive should the training be and what resources are necessary to implement the desired program?



Program Gaps – MS4 and TMDLs



■ *Nutrient Management Program*

- The County must develop certified nutrient management plans (NMPs) for any County property one acre or greater where fertilizers are applied.
- **Driver** – New MS4 permit requirement.
- **Question** – What resources are required to implement NMPs?



Program Gaps – MS4 and TMDLs



■ ***TMDL Action Plans***

- The County must develop an “action plan” for implementing all TMDLs that affect the County. This will be guided by DEQ-led efforts to develop a regional plan for the Roanoke River basin.
- **Driver** – MS4 permit requirement.
- **Question** – What resources will be required to develop and then implement the action plan? The potential implementation timeframe is a significant unknown.



Program Gaps – MS4 and TMDLs



■ ***BMP Inspections, Maintenance, and Enforcement***

- County staff is struggling to meet the current inspection schedule (once every five years) and to work with property owners to address maintenance issues.
- Many HOAs are struggling with maintenance of facilities that were installed as a condition of development.
- The number of facilities will increase under new regulations.
- **Driver** – MS4 permit and Virginia Stormwater Management Regulations.
- **Question** – What level of technical support should staff provide to private property owners?
- **Question** – How fast should enforcement issues be addressed?
- **Question** – Should the County consider taking over maintenance of structural BMPs in residential areas?
- **Question** – What resources are necessary to meet basic permit requirements; additional expectations by residents?



Program Gaps – Infrastructure Maintenance and Improvements



■ *Equipment Replacement*

- Much of the County's existing equipment for drainage system maintenance has exceeded its planned life expectancy. The County currently does not amortize the cost to replace this equipment; rather the County must pay the full cost all at once.
- **Driver** – Effective planning for equipment replacement.
- **Question** – Should the County change the way that it addresses replacement of aging equipment by paying into a special fund over time?



Program Gaps – Infrastructure Maintenance and Improvements



■ *Project Backlog*

- The County has a significant backlog of drainage projects that have been identified.
- **Driver** – Public safety; effective use of public resources (that is, not managing by emergency).
- **Question** – How fast should the County address this backlog (5 years, 10 years, etc.)?
- **Question** – What are the resources required to meet this expectation?



Program Gaps – Infrastructure Maintenance and Improvements



■ ***Storm Sewer System Maintenance***

- System maintenance is currently conducted on a complaint basis rather than systematically planning for the rehabilitation based on age and condition.
- **Driver** – Public safety; effective use of public resources (that is, not managing by emergency).
- **Question** – Should the County develop and fund a plan for systematically inspecting the drainage system for issues before they cause a problem?



Program Gaps – Infrastructure Maintenance and Improvements



■ *Maintenance of Streams*

- The County conducts periodic inspections of streams within the public right-of-way typically based on complaints. Many of the County's streams are significantly degraded.
- **Driver** – Local stewardship; potential strategy for meeting sediment TMDL.
- **Question** – Should the County develop and fund a plan for identifying erosion at outfalls and along the stream valleys?
- **Question** – Should the County develop and fund a plan for systematically conducting stream restoration based on problem areas?
- **Question** – What should the County's responsibility include providing assistance to streams on private property?



Program Gaps – Other

- What are your specific concerns?
- What is the role of the County/Town in addressing these concerns?





Program Goals and Priorities



Goals and Priorities

- Goals help provide overall strategic direction.
- Comprehensive Plan, Chapter 5, Resource Conservation Goal:
 - “To preserve and manage the natural, historic and scenic resources of Roanoke County in a way that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.”



Goals and Priorities

■ Example Goals

- **Public Safety** by reducing flood hazards, water pollution and related threats to people and property.
- **Higher Quality of Life** by protecting and restoring water resources for the enjoyment of residents and visitors.
- **Regulatory Compliance** by meeting all minimum state and federal stormwater requirements.
- **An Efficient Program** by working with regional or state partners.
- **An Engaged Public** so that they can be part of pollution prevention efforts and understand the need for new programs.



Goals and Priorities

- What should be the County's goals with regard to stormwater management?



Next Steps



Next Steps

- Next meeting:
 - Thursday, October 24th
 - Greenridge Center
- Introduction to Levels of Service analysis:
 - What are our options for meeting gaps?
 - What is the cost of these options?
 - What is the priority level for meeting gaps?
- Materials at least a week ahead of time.
- Final questions?





Thank You!