



Memorandum

To: Stormwater Management Advisory Committee

From: CDM

Date: May 4, 2009

Subject: Stormwater Management Advisory Committee Meeting #2

On April 29, 2009, CDM facilitated the second meeting for the Stormwater Management Advisory Committee (SMAC) for the City of Colonial Heights (City). The meeting was held at 7:00 pm at the City Library. A full list of meeting attendees is attached.

CDM provided each member of the group with meeting materials including an agenda, a copy of the PowerPoint presentation, a copy of the City's NPDES MS4 Implementation Plan, and a map showing the City's known capital improvement projects. The following is a list of agenda items covered during the meeting:

- NPDES Phase II Stormwater Requirements
- Introduction to Level of Service
- Assessment of Stormwater Management In Colonial Heights
- Question and Answer Session

NPDES Phase II Stormwater Requirements

Following a brief recap of topics from last meeting, David Mason of CDM provided a detailed description of the NPDES Phase II stormwater program requirements as they relate to Colonial Heights. The federal government mandates that all communities greater than 10,000 people must have a stormwater permit through the National Pollution Discharge Elimination System (NPDES) Phase II program. The purpose of the program is to reduce the discharge of pollutants to the "maximum extent practicable", protect water quality and aquatic habitat, and satisfy the appropriate water quality requirements of the Clean Water Act. The NPDES Phase II program requires the City to implement the following six minimum measures for stormwater management:

- Public Education and Outreach

- Public Involvement and Participation
- Illegal Discharge Detection and Elimination
- Construction Site Runoff Controls
- Post-Construction Site Runoff Controls
- Pollution Prevention for Municipal Operations

As discussed at the last meeting, the City was issued the second round of their NPDES permit in 2009. Within the next five years of their permit cycle, the City will need to achieve compliance for each of the six minimum measures, which includes implementation of approximately 80 discrete program elements. A copy of the City's implementation plan with activities, schedule and responsible parties was provided at the meeting. Since this is an unfunded mandate from the federal government, the City needs to absorb these new services into the existing budget or generate more revenue to maintain compliance with their permit.

Mr. Mason continued with a description of the key activities that the City must implement for each of the six minimum measures. These activities are listed on the PowerPoint slides presented at the meeting. Mr. Mason concluded the discussion by providing information regarding potential fines for non-compliance with the NPDES Permit.

Introduction to Level of Service

The second topic of the meeting was a presentation on the concept of "Level of Service", and specifically how it relates to stormwater management. Mr. Mason first discussed how level of service is typically defined for other forms of infrastructure, such as water, sewer, transportation, etc. With all of these, there is typically a minimum level of service that is driven by regulatory requirements, but there may be higher levels of services related to customer expectations. This same concept applies to stormwater management.

For stormwater management, the minimum level of service is typically defined by the NPDES rules, locally by the Chesapeake Bay Rules, issues related to TMDLs (Total Maximum Daily Loads) and FEMA floodplain rules. However, the customers' expectations related to level of service typically deal with flood protection, public safety, erosion, water quality and aesthetics. So, the important steps for determining the level of service for a City is to define what the minimum is by regulation, but also to involve the citizens in determining if the minimum regulatory level adequately addresses their expectations for what the City should provide.

When determining level of service for a stormwater management program, it is typically easier to break the program down into the four functional areas of stormwater management (program management, regulatory compliance, operations and maintenance and capital

improvement projects). Then, we look at the spectrum by which service is provided in each of these areas, ranging at the lowest end (“no action”) to the highest end “pro-active”). Through CDM’s experience in evaluating stormwater programs, a level of service matrix was developed with definitions of varying levels of service for each of the four functional areas. The lowest end or “in-active” end is rated a 1 and the highest end is rated at 5. The matrix is used to assign the City a level of service based on benchmarking with other programs.

Assessment of Stormwater Management in Colonial Heights

Mr. Mason continued the presentation by discussing how stormwater is being managed in Colonial Heights. Mr. Mason described how services are provided in each of the four function areas. For each area, Mr. Mason listed the services provided and the department that is responsible for providing the service. The Public Works and Engineering departments are generally responsible for program oversight and regulatory compliance. The Streets Department has primary responsibility for the maintenance, repair, and replacement of the stormwater infrastructure system. Other departments play smaller roles, such as Recreation and Parks, Planning, Building Inspections and Building Maintenance.

In gathering information on the stormwater program, CDM interviewed City staff and reviewed City documents to determine how the services were being provided and what resources were available to provide the services. Since discrete stormwater tasks are not defined in the City’s budget, CDM used information gathered by staff to estimate the total City funds expended to provide stormwater services. Generally, the estimates were based on an estimate by staff of department budgets devoted to stormwater. As an example, the Recreation and Parks department estimated that approximately 10 percent of staff time is devoted to stormwater services such as maintenance of parks (debris & trash removal, etc.) adjacent to creeks. Therefore, 10 percent of the entire department’s budget was assumed to be stormwater related (in order to capture associated overhead, vehicle, equipment and supply costs).

CDM performed a similar analysis for every department providing stormwater services to develop a total estimate of the average annual cost of stormwater service in the City of Colonial Heights. The estimated cost was \$633,000. However, CDM noted that one-time costs in the budget were removed so as not to artificially inflate the average annual cost. After discussion with the Advisory Group, it was decided that the annualized cost for the new Street Sweeper purchase in the FY08-09 budget should be included in the annual cost. Therefore, \$17,500 will be added to the previously estimated cost of \$633,000 to equal a new total of \$651,000, rounded to the nearest \$1,000. Additional information regarding the additional \$17,500 is included in the question and answer section below. Based on CDM’s experience in the Southeast with similar communities, the estimated program cost was similar on per capita cost basis and is assumed to be accurate for a planning-level cost study.

Program Management Level of Service Evaluation

Following the cost analysis, Mr. Mason provided the committee with CDM's estimate of the City's current level of service in each of the four program areas. For Program Management, the City is responsive to customer complaints and adequately staffed. As resources permit, the City will participate in regional planning efforts. However, the City has not had adequate resources to perform any long-range planning or evaluation of future stormwater issues or needs and also has minimal capability to implement important capital improvement projects. Based on these items, CDM estimated the current program at Level 3.

Regulatory Compliance Level of Service Evaluation

Next, Mr. Mason provided the committee with CDM's estimate of the City's current level of service for Regulatory Compliance. The City has made progress on their permit in terms of updating relevant ordinances, such as the Bay Act Rules, E&S rules and the Illegal Discharge Rules. The Council has also recently set up a stormwater fund to increase the focus on regulatory compliance, which includes one new staff member and one re-assigned staff member to deal with regulatory related issues. However, the City was issued a Consent Special Order by the State following their last permit cycle as the State deemed the current program as non-compliant. As such, CDM estimated the current program at Level 2.

Operation and Maintenance Level of Service Evaluation

Next, Mr. Mason provided the committee with CDM's estimate of the City's current level of service for Operations and Maintenance. The City currently performs routine street sweeping of the system (all lane miles once per year) and performs semi-routine catch basin and inlet cleaning. As a part of the new stormwater fund, the City also has assigned a new stormwater maintenance foreman to increase the attention paid to stormwater maintenance issues. However, CDM's review concluded that maintenance to date is still primarily reactive with only some inspection-based maintenance, which is only performed on a small percentage of the system. As such, CDM estimated the current program at Level 3.

Capital Improvements Level of Service Evaluation

Finally, Mr. Mason provided the committee with CDM's estimate of the City's current level of service for the Capital Improvements Program. On the positive side, the City has formally identified many of the capital improvement needs in the City, which is currently over \$5 million on projects. In past years, the City has been able to address the most critical issues that may be causing a negative impact on citizens. However, a comprehensive list of current and future CIP needs has not been generated (due to the lack of a formalized master planning type of study) and there remains minimal capacity to address the existing backlog of projects (i.e. no proper funding identified). As such, CDM estimated the current program at Level 2.

Question and Answer Session

The following is a list of questions, answers and comments that were recorded throughout the meeting regarding the NPDES program, the Level of Service concept, and CDM's assessment of the City's current level of service for stormwater management:

- Q: Are there any success stories for NPDES Phase II? Are Cities complying?**
- A:** *Yes, many systems in Virginia and across the country have complied with the NPDES Phase II program. Compliance with the program could lead to an increase in the efficiency and effectiveness of the drainage infrastructure system and could lead to improved water quality in and around Colonial Heights.*
- Q: What has the City done regarding funding to date?**
- A:** *In the FY 08-09 budget, the City set up a stormwater fund of \$337,000 from the general fund to begin to address these stormwater issues. The funds were used to hire an NPDES Permit Coordinator, to assign a dedicated Stormwater Maintenance Foreman, and to pay for a study to evaluate the long term funding options for the program (i.e. this work).*
- Q: Who oversees the implementation of the NPDES Phase II program at the Federal level?**
- A:** *The EPA has the ultimate responsibility to oversee the program. However, EPA has delegated the permitting authority to each State. The EPA will intervene if the State isn't properly enforcing the program.*
- C:** *One member noted that it would seem that the stormwater program would "fall down the list of priority items during today's economic conditions." Another member of the advisory group did not agree that this should be so.*
- Q: Some of the curriculum in schools already covers topics related to water quality. Does this comply with the NPDES Phase II requirements for providing education to schools?**
- A:** *A City staff member responded, "The school's curriculum in and of itself has no bearing on the City's NPDES permit. However, the City is pursuing cooperative education projects with schools that will count towards compliance with the permit."*
- Q: At a recent clean-up day event held by the City, there was a sign-up sheet for volunteer groups. What is the status of this?**
- A:** *A City staff member responded, "The volunteer program is still under development with the goal for implementation in late summer/early fall of 2009".*

C: *One member noted that during a recent heavy rainfall event, he noticed a City maintenance crew working diligently to clean up a clogged catch basin in the street. He noted that it was impressive to see the crew work so hard in those conditions.*

Q: **For the estimate of stormwater management service cost, why have we eliminated the cost of a new vehicle/equipment purchase from the annual budget? Should this be included as an amortized cost?**

A: *After significant discussion with the advisory group, it was concluded that some portion of the cost to purchase new equipment, such as the City's new street sweeper, should be included in the total annual budget. In the FY08-09 City-wide budget, the Stormwater Fund included \$35,000 for financing the cost to purchase a new street sweeper. Additional off-line discussions with staff revealed that the \$35,000 cost will be applied in even increments over the next five years, but a street sweeper can remain in operation for 10-year or longer. Therefore, it was determined that 50% of the current annual finance cost should be included in the total, average annual budget. CDM noted that all other vehicle use costs are included in the current estimate as they are a portion of each department's total budget, of which a percentage was allocated from each for stormwater service.*

C: *One member noted that future year budgets should include an allocation for CIP expenses since those projects will ultimately be necessary to maintain the effectiveness of the system.*

Q: **Are the assigned levels of service typical for this type of community?**

A: *Yes, the assigned levels of service are typical for small communities that are just beginning to address stormwater management. Many smaller communities struggle initially to absorb the additional cost of service to address the NPDES Phase II program requirements.*

Parking Lot Items

There were two items on the Parking Lot to be addressed at a future meeting or off-line. The two items are as follows:

- **Local Option Sales Tax** – please note that this and all other funding options will be discussed at the next meeting, per the schedule and agenda.
- **Water Quality Data** – an advisory group member asked for additional information regarding local water quality conditions. Although the City doesn't perform any local monitoring of streams, the State performs periodic monitoring and the results are included in the State's 303(d) list of impaired water bodies. This list will be provided to the group.

Homework!

Mr. Mason noted that PBS recently presented a very relevant piece on water quality and the effects of stormwater runoff. The movie may be watched online at: <http://www.pbs.org/wgbh/pages/frontline/poisonedwaters/>. While all segments are informative (including a focus on the Chesapeake Bay), Segments #1 and #10 are the most relevant to the topics in these meetings.

Next Meeting

The next meeting of the Stormwater Management Advisory Committee will be held on May 13, 2009 at 7:00pm at the City Library. Attendees were thanked for their time and encouraged to attend the subsequent meetings.

**City of Colonial Heights, Virginia
Stormwater Management Advisory Committee
Attendance Roster
Meeting 2**

Attendance Check	Name	Representing	Phone Number	E-Mail or Mailing Address
	Alvarez, Eduardo	Dunlop Farms Association	(804) 520-7427	
	Ankrom, Kurt	City Government (Retired)	(804) 526-8131	ankromcgmk2@aol.com
✓	Burchett, Jane	Historic Committee, Flora Hill Association	(804) 526-9679	brillopad2@verizon.net
	Cawthorne, Robert	City Government (Retired)	(804) 526-6706	
✓	Comstock, Pam Martin	Builder	(804) 526-0012	gcmartinco@aol.com
	Cotton, Ed	Southpart Mall Operations	(804) 526-3900	
	Crowder, John	Development	(804) 334-4895	P.O. Box 1403, Colonial Heights, VA 23834
	Dearman-Bailey, Karen	Southside Virginia Association of Realtors		
	Dunkum, Thomas	Wesley United Methodist Church		
✓	Estes, Betty	Century 21	(804) 526-5454 ext. 369	betty.estes@century21.com
✓	Flack, David	The Parent/Child Outdoor Group	(804) 526-1214 (804) 926-3476	dflack@tpcog.org
	Fleming, Chuck	Active Citizen	(804) 526-4289	
✓	Friedman, Frank	Active Citizen	(804) 520-2092	fandw.friedman@verizon.net
	Gordon, Thomas	Wal-Mart	(804) 526-0844 335-4216 cell	thomascgordon@yahoo.com
✓	Green, Roger	Colonial Heights Chamber of Commerce	(804) 526-5872	chchamber@colonialheights.cc
	Greico, Dave	K-mart	(804) 520-5146	
	Harrell, Kenny	Colonial Heights City Schools	(804) 524-3448	kenny_harrell@colonialhts.net
✓	Heartwell, Jr., Phillip	Friends of the Lower Appomattox River	(804) 526-0626	pheartwell@aol.com
	Hedblom, Troy	Colonial Heights Public Schools	(804) 524-3400 ext. 20	
✓	Howard Sleeper, Edna	Kennon Pointe Condominium Owners Association	(804) 520-6672	ehoward818@aol.com
	Johnson, Jr., Lewis	Friends of the Lower Appomattox River		
	Jones, JoAn	Mayor's Beautification Committee		
	Martinko, Bob	Homebuilders Association of Southside Virginia	(804) 874-3713	robertmartinko@aol.com
	Mason, John	Woodlawn Baptist Church	(804) 526-2179	
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