

Crab Creek IP Government Working Group

Friday, January 10, 2014 10am-12:30pm

Attendees:

Becky Barlow, Virginia Department of Conservation and Recreation (DCR)

John Burke, Gay and Neel, Inc.

Gary Coggins, Virginia Department of Health (VDH)

Diana Hackenburg, Virginia Department of Environmental Quality (VADEQ)

Cynthia Hancock, Skyline Soil and Water Conservation District

Stacy Horton, DCR

Carolyn Howard, Draper Aden Associates for Montgomery County

Karen Kline, Virginia Tech Department of Biological Systems Engineering

Patrick Lizon, VADEQ

Hunter Musser, Natural Resource Conservation Service (NRCS)

Ashley Parks, EEE Consulting for VDOT

Christy Straight, New River Valley Planning District Commission (NRVPDC)

Todd Walters, Town of Christiansburg

Christopher Webster, Town of Christiansburg

A brief round of introductions was made. Diana and Patrick explained the purpose of the meeting and reviewed the TMDL process. The discussion centered on items listed in the agenda such: as regulatory and non-regulatory programs in place to assist with TMDL implementation in urban, residential, and agricultural areas.

On-site Sewage Disposal

- Gary (VDH) stated that state regulations can impact on-site sewage disposal systems, but in this watershed there are no local or regional ordinances specifically impacting them. VDH has limitations in taking care of failing systems because they must rely for the most part on self-reporting by residents with septic problems or complaints by neighbors. Straight pipes can be difficult to visually locate find.
- Gary noted that hooking up to sewer can be cost prohibitive for many people.
- Gary (VDH) noted there are no pump-out ordinances in any of the relevant localities. However, if you live in the Town of Christiansburg and a sewer hookup is available, once your system fails, you cannot repair or pump. You have to hook up to the sewer system. Outside of the Town, there is no requirement to hook up to sewer when your system fails. This watershed is not in mandatory pump out zone for the Chesapeake Bay.
- The Town's sewer lines do extend into Montgomery County. The Town website should show the Town sewer connections and also potentially those in Montgomery County. The information could also potentially be retrieved from the Town's planning department. Generally, the sewer line follows Crab Creek.
- John Burke (Gay and Neel) asked if as a result, some areas with TMDLs or IPs have created a mandatory pump out cycle. In other states like Montana, they have an ordinance that requires landowners to pump out every 5 years. Other places have a tracking system that sends out reminders to landowners reminding them to pump out their systems on a regular basis. Hanover County has a 5-

year pump out ordinance and Franklin County/Smith Mountain Lake has a 5-year septic pump-out ordinance that resulted from the Blackwater IP process.

- Cost-share funding is available through DEQ to repair, replace, or install alternative septic systems or to connect residents to sewer lines. Money is not available from DEQ to lay new sewer lines. Only watersheds with an IP are eligible to apply for this funding. A lot of times this money can be funneled through Soil and Water Conservation Districts and Skyline does have experience with this type of grant project (Mill and Dodd Creeks). The grants are now on a two-year cycle and they are statewide competitive. If during the IP, it is recommended that certain areas or residents hook up to sewer, than it might make for a more competitive grant for funding later.
- Gary (VDH) stated that when funding is available, residents are more likely to seek assistance with fixing failing septic systems. The SWCD can publicize these septic programs and sign people up. However, they involve other people like VDH to provide the technical assistance. Districts are a good choice to administer and publish the program because people of think of the district as more friendly than other agencies. A lot of people come to the SWCD that have heard about the program because they want to understand it better before they come forward to VDH. VDH can work with partners including the SWCD to get the word out. VDH also has prosecutorial discretion to work with people. If there system is not posing an immediate threat, VDH tries to give the landowners that come forward themselves latitude to take care of the problem within their means. If it is an immediate threat, VDH has to take care of it right away, but if they come forward voluntarily that's generally different.
- The estimated total number of septic systems, number of failing septic systems, and number straight pipes in the watershed that are presented in the workgroup handouts is based on the 2004 TMDL study. The TMDL study relied upon census data and used research on septic system failure rates to estimate the potential number of failing systems in the Crab Creek watershed. It would be helpful if the local VDH has information such as applications that could influence or better estimate those numbers. VDH is trying to create a database to capture who is still on septic systems, but they are still not at that point. VDH does not have an internal GIS program. Gary noted they may be able to narrow down sewer and septic numbers by locality.
- The numbers for failing systems and straight pipes could be higher than other areas. Straight pipes are more likely to occur on lots with older homes. Unlike the number of straight pipes, the number of failing septic systems will probably grow as existing septic systems age. Older properties have been carved up into really small lots where the soils with drainage problems are hit and miss. The percent estimate of repairs and replacements might be off. Gary (VDH) would estimate fewer repairs and replacements and a higher percentage of alternative systems.
- Thirty years from first flush to first repair is the typical lifespan of a sewer system based on different data sources, including on-the-job anecdotes. Many factors come into play influencing that figure and that it can be exceeded. Regular maintenance also plays a part in a system's longevity. In the TMDL, they applied the age of the house to figure out the failure rate which is probably the most accurate way to estimate these numbers.

Urban Runoff Programs and Activities

- The Town of Christiansburg has MS4 status and Montgomery County will apply for MS4 status this year. What sort of requirements does the Town have for addressing sediment loads into the creek as part of their MS4 permit? The Town is going to the new requirements for sediment for new construction. A few stream restoration projects are underway to help reduce sediment loads from the Town. Section 6 of the permit addresses erosion control and there's also a separate section addressing TMDLs . Each MS4 permittee comes up with a TMDL action plan. The permittee looks at their allocation and comes up with a program to meet that allocation. That plan is turned into DEQ.

Sediment requirements are written into the general permit while sediment and bacteria directly related to the TMDL allocation are located within that part of the permit. Each permittee creates a TMDL action plan. Even if the MS4 loads are aggregated in the TMDL, each permittee creates their own plan. They look at the percentage reductions and work to reduce their loads by that percentage rather than trying to disaggregate the different loads for a specific amount reduction. Attendees thought the railroads must also meet these requirements.

- MS4 permits require that permittees identify their intended pollution control activities, a schedule for implementation, and a mechanism for tracking implementation progress. Anyone can access the MS4 permittee's annual report for information on their related activities. This year, the permittees are required to post their annual report online.
- The Roanoke River IP is 3-4 months ahead of the Crab Creek IP. That project has documentation quantifying BMP reduction percentages for urban stormwater projects. The Center for Watershed Protection has also worked with West Virginia to also quantify BMP *E. coli* reduction efficiencies for urban stormwater practices.
- The MS4 permits only cover bacteria if the permittee has a TMDL waste load allocation. The waste load allocation becomes part of the MS4 permit. The permit is a tool for DEQ to make sure the localities work towards meeting the allocation. The MS4 permit recommends pet waste as a component of the permit.
- Do permittees pass down the requirements of the MS4 permits via fees or required practices to residents and/or businesses? Right now, the Town does not pass down these requirements except for the practices required for new construction. There are ways to charge the citizens such as stormwater fees like those being considered by other localities. There is the potential for Town ordinances that could impact water quality such as incentives to enhance riparian protection and restoration.
- There is an education component to the MS4 permits. Permittees have to make presentations and be involved in four public participation activities a year. There are also measures out there for quantifying the value of minimum control measures implemented by residents.
- The Town has a street sweeping program and they actually have a new sweeper. It would be useful to have any numbers available about the program and that a credit for the Town could be calculated from the new sweeper reduction efficiencies. Information about the street sweeping program is provided in the MS4 annual report.
- The Town currently has a stream restoration project underway on Crab Creek that should significantly reduce sediment impacts. They also have gotten grants for upstream work. The Town estimated the load reductions of these projects for inclusion their SLAF application. The BANCS protocol could be used on future projects to estimate load reductions.
- One of the things to be included in the plan is accounting for load reductions that have already occurred since the TMDL was completed. The plan should cover what load reductions are actually left to achieve. Projects that have already occurred need to be credited. Any information any of the agencies or stakeholders have on projects occurring since the TMDL would be helpful.
- Implementation plans, once eligible for grants, cannot be used to meet the conditions of an MS4 permit. They can target loads on properties that feed into a conveyance, but they grant money could not be used to improve the conveyance. Blacksburg and VA Tech had to work with this issue a lot.
- Patrick asked what will happen since Montgomery County will become an MS4 permittee, but that it does not have a waste load allocation. The TMDL allocated for future growth of point source pollution, but the Town's permit was the only one listed for the load allocation.

Pet Waste

- The Town does not have a scoop the poop ordinance. The Town considered putting out collection systems, especially on the Huckleberry Trail and in the parks. This is being discussed with the Parks and Recreation Department. The Town has approval in the conservation area of the stream restoration project to put in a trail. They talked about also putting in a collection system and educational signs about the project. Dog runs attract a lot of people which confuses and controls waste. It could help the Town if they created a fenced area for dogs.
- When asked if the Town conducts pet waste education and outreach, Todd responded that they set up a booth at the wilderness trail days focused on stormwater and it might have included some pet waste information.
- Cynthia (Skyline SWCD) talks to kids in schools about picking up waste, including pet waste. It's a topic easily understood by the kids. In the county, the kids tend to say they don't pick up pet waste while in Blacksburg the kids tend to say they do pick up pet waste. Cynthia talks to about 3,000 kids a year. Third graders learn about soils and fourth graders about watersheds and the water cycle. She takes 6th graders on field trips where they do stream testing as well as learn about BMPs and nonpoint source pollution. Partners include the local 4-H program. Lots of information and tools are already available to teach about watersheds and water quality, including the Enviroscape model.

Agriculture

- There is money for agriculture BMPs in this watershed through NRCS. If a farmer is willing to come in and work with the government to do project they will get help and probably also funding. Hunter (NRCS) thinks the state program is the best it has ever been. If someone comes in and wants to fence the cattle out from water, they'll get money.
- EQIP is the NRCS's main program to address resource concerns on pasture land including animals in streams, animal waste (point source programs like feedlots, dairies), and cropland (with practices like no till). EQIP can also address forestry, but forestry does not seem to be an issue in this watershed. CREP is a good program too when it is available, but there are no sign ups right now as they are waiting on a new farm bill.
- There is a misconception out there about agricultural BMP programs. People are scared the government is going to come out and tell them how to farm. A large part of the district's programming is education. Even if the district can't provide cost-share to a landowner, they can provide field days and other education programs. The district staff works to help landowners that don't qualify for cost-share to develop small BMPs they can do on their own without those funds. The district does this work with both NRCS and the extension service. The district shows farmers how BMPs can benefit them as a way to draw them in.
- The Virginia Agricultural Cost-Share program (VACS) pays for a portion of a practice and the farmer pays for a portion. The farmer gets to choose their own contractors. There are requirements and installed practices have to pass an engineering inspection. All practices have a lifespan and maintenance requirement. They are subject to random inspection and there is accountability. There is also a tax credit program to cover 25% of the cost of installing some practices. If you can't use tax credit for your taxes, it now becomes cash.
- Buffers are a large component of farm management and of the cost-share program, but grazing practices are also really big in this area. Grazing systems are excellent for farms and currently are at 100% cost-share reimbursement for the next two years. The program does require a 35-ft buffer for 100% cost-share. Landowners have to fence out that required buffer, but that they are not required to plant it. CREP, a federal program the state and districts often piggyback with to create a full program for farmers, encourages a planted buffer. Usually, someone will sign up for CREP and then come to

the district for further assistance. A reduced setback practice with just a 10-foot buffer is also available and has 50% cost-share.

- Properties within TMDL areas tend to float to the top of BMP cost-share program rankings. Having no live water on a property is a setback for landowners trying to get money. “Farmettes” could be an issue in this area because these small-size farms do not typically qualify for cost-share programs.
- Patrick asked if anyone had dealt much with conservation easements. When the New River Land Trust was younger, the District served as a co-holder for some of their easements. Now, the District works mainly with the Virginia Outdoors Foundation. A conservation easement is not something you can really persuade someone to do; they need to want to do it. The District has not really worked specifically with riparian buffer easements. Conservation easements do not always include provisions for stream exclusion. There is one large, 500+ acre easement in the watershed on Childress Farms.
- The district helps with agricultural stewardship act violations. The Agricultural Stewardship act is a mechanism where anyone can notify VDACS that someone in agriculture is causing a problem. It is then up to the commissioner whether they investigate an anonymous complaint. If you leave your name when making a complaint, they must investigate it. The District gets one or two complaints a year in their area. Usually, the complaints crop up after a big storm event. A district representative goes with the investigator to offer assistance to the landowner. Landowners have to meet a timeline to fix the issues or they pay fines. The timeline and fine requirements are written into the state code.
- There are no permitted operations in the watershed so no nutrient management regulations would apply here. The nutrient management plan program is otherwise voluntary and farms that do have a plan written do not always follow through with it. Childress Farms would be an example of a farm in the watershed with a nutrient management plan. On cropland, if the nutrient management plan is followed and the farmer understands the importance of year-round cover, then there should be no runoff problems. However, if no cover crops are used and fertilizer is applied on bare fields, then the fertilizer will ultimately seep down into the groundwater.
- Patrick noted that there are biosolids sites in the watershed and that each site should have a nutrient management plan. Those plans must be followed and they are typically written by the biosolids applicators. The Town does not have to apply biosolids, but they choose to do so with the cooperation of local farmers. Three sites in the watershed have been found where biosolids are currently applied at specific intervals and following specific rules. These sites are included in the watershed model.

Other Issues

- Attendees thought that the bacteria loading estimates in the TMDL could be much different because the watershed has changed so rapidly from agriculture to residential. The TMDL did include future land use projections, but these could have been off from what really occurred.
- The load allocation scenarios could be updated, but that would require a TMDL modification. The IP can address this situation by pointing out that the change in residential land use was probably even bigger than projected. More sewer and residential practices can be included in the IP to account for the speedier transition from agriculture to residential.
- There are springs, developed and undeveloped, in the watershed all throughout the Walton area. Fecal coliforms are found in the springs, sometimes right out of the collection boxes. Animals like salamanders and frogs hang out in the boxes and influence those findings. There are also a couple of old quarry sites in the watershed.
- VDH has no way to document if wells have bacteria present because wells are private. If they haven't been recently shocked, they probably have bacteria. Before a well goes into operation, it has to have a

good test result, but after that there are no testing requirements. Wells are considered private property and therefore, the individual landowner's responsibility.

- John stated that the stormwater load assistance fund (SLAF) has \$12 million more in funds for next year. SLAF is a state, DEQ-run, matching fund for municipalities with projects that address stormwater. It funds stormwater BMPs and the metric for choosing projects is phosphorus reductions.
- Gary noted that there are a lot of Christmas trees near the Bellevue Elementary School (Peppers Ferry and Walton). Bellevue is a growth development area in the Christiansburg comprehensive plan. The Cripple and Elk Creek IP addresses future conversion of agricultural lands to Christmas tree farms. Most of the farmers in this watershed couldn't afford to convert to Christmas trees.
- VDOT is working to address actions needed to meet their allocation for this TMDL within their action plans. VDOT does not wish to be written into the IPs because of further implications. Ashley stated that IPs can be viewed by DEQ and then potentially written into plans. VDOT has shared their action plan with the Town. Their program includes public involvement, outreach and street sweeping. However, they do not really want any of this in the IP. The Cambria VDOT site is included in their implementation plan. VDOT probably does not do much road sanding in this area.
- VSMP permit applications ask how you will address runoff in your project; however new projects do not have an allocation in the TMDL. The TMDL treats construction like a rolling allocation. In the TMDL, the current projects served as a place holder for future projects.
- There are wetlands in the watershed that could be restored. The Town's maintenance operations are currently located at an old treatment plant near Crab Creek. The Town just purchased a piece of land on Scattergood drive and the future plan is to move the building and operations up off of the creek to that location. They would then hope to bring that wetland area back to its natural glory. However, this is probably far, far away in the future.
- Gary noted that every time it rains a manhole above Hickcock overflows. There are a few repeat overflows throughout the Town. Right now, the Town is under a consent order to take care of those overflows. They have replaced some lines on West Main Street which is a big sewer drainage area. The Town has reduced overflows significantly through work the past few years. There might be some money for these types of projects through the state revolving fund or through rural development funds.
- Todd also wondered in the last 10 years how many sewer connections have been made. The information could be derived from the Town's billing system. It might be almost impossible to get the number of residents on septic systems, but you might be able to get that number for just the annexed sections of Town. Todd will try to get this information by March.
- Attendees asked if monitoring has been conducted since the TMDL. Patrick replied that yes, DEQ has a six-year monitoring cycle. Also, once the implementation projects begin, monitoring will hopefully be more frequent.

Visible Erosion Problems

- Down Chrisman Mill road and across from golf course, there's a vacant piece of land that sold recently. The new owner has cattle in there that have access to the creek.
- Bank erosion was seen on the watershed field tour within the Meadows golf course. Attendees noted that it was a private course now owned by a group of investors. All golf courses should have a nutrient management plan in place.
- The town has an old water pump station leased to a farmer that could be a problem.
- Many sections of Crab Creek run right alongside the railroad which could be a problem.

- The railroad and creek intersection of the Huckleberry Trail extension is a great opportunity for future stream protection measures.
- A location off 2nd and Phlegar where a stream runs through people's backyards is highly eroded.

Roles and Responsibilities

- DEQ does not do the IP work after the plan is developed. Someone else will need to take the lead on applying for and managing implementation funding. DEQ tries to take a comprehensive approach to the IP so organizations can collaborate together and actual water quality improvements can be done in the watershed.
- Other potential partners for this plan include Indoor Plumbing Rehabilitation (IPR) programs or the Southeast Regional Community Assistance Project (SERCAP) because they can help with funding.
- Patrick asked if the district would have an interest in running a residential program. The District has done so in the past and would definitely be interested in the agriculture activities, but would need board approval for doing more residential activities. The District would need more hands to be effective. Pump-out funding was noted as the real carrot for people to get involved in these programs. Offering money for pump-outs helps with word-of-mouth. It works well when the district takes the lead on implementation because people are scared of the other government agencies. Mail-merge letters seem to work better than generic postcards for the District's outreach efforts.
- The urban components seem to fit within the MS4 program nicely and the district could be a partner on urban BMP efforts with the Town and County. For past projects, the district worked to flood people with information including by word of mouth, signs in yards, and mailers.
- If programs don't have a natural home, the PDC could help. However, the PDC does not have its own Indoor Plumbing Rehabilitation program as that funding is now with SERCAP. SERCAP can help with technical assistance or engineering needs on projects.
- The New River Roundtable is now officially defunct. Roundtables are a good way to bring together stakeholders and organize projects. There was talk among attendees about putting together a Crab Creek watershed group to further this work.

Next Steps

Minutes will be sent out in draft to the group and comments requested. The Government Working Group will only meet this one time. A volunteer is still needed to represent the Government Working Group's findings at the upcoming Steering Committee meeting. The agricultural and residential working groups will each have another meeting sometime in March. If anyone has suggestions for advertising future public meetings, please contact Diana or Patrick.