Charlottesville Water Resources Protection Program Advisory Committee

Meeting #1: Meeting Notes
Date: January 16, 2014, 3:00 p.m. to 5:00 p.m.
Location: CitySpace, 100 5th Street NE, Charlottesville, VA

Attendees:
Advisory Committee Members: Brian Becker, Morgan Butler, Meg Byerly, Dave Hirschman, Leslie Middleton, Rebecca Quinn, Alyson Sappington, Trey Steigman, Chuck Ward

City Staff: Dan Sweet, Stormwater Utility Administrator, and Dan Frisbee, Water Resources Specialist

Members of the public: Bill Emory

Welcome
Dan Sweet introduced himself as the City of Charlottesville’s new Stormwater Utility Administrator, who will be the primary City staff contact for the Water Resources Protection Program Advisory Committee (WRPP-AC). Mr. Sweet welcomed the WRPP-AC members to the inaugural meeting of the committee and thanked them for their participation.

Introductions
Mr. Sweet asked the WRPP-AC members to please introduce themselves by saying who they are, why they applied for appointment on the committee, what background and perspectives they bring, and what they seek to accomplish through their appointment. The City staff also introduced themselves in this manner.

Question: How many stormwater utilities are there in Virginia? Response: There are over a dozen stormwater utilities in Virginia and over 1,400 nationwide. Stormwater utilities are gaining momentum as the funding mechanism of choice for more and more municipalities. The oldest stormwater utilities in Virginia are found in the Hampton Roads area and date back to the early 1990s.

Question: Can you review the WRPP drivers? Response: The WRPP drivers include meeting regulatory mandates, rehabilitating existing stormwater infrastructure, solving historic drainage and flooding problems, and pursuing responsible stewardship of Charlottesville’s environment. The lines between the regulatory and stewardship realms are becoming more blurred, as requirements for restoration of the Chesapeake Bay will compel the City to invest significantly in green infrastructure projects that will improve local environmental and water quality conditions.

Adoption of WRPP-AC By-Laws
Mr. Sweet walked the group through the draft by-laws for the WRPP-AC, facilitating discussion and answering questions as they arose.
**Question**: Can Skype be used if a WRPP-AC member needs to participate in a meeting remotely? If yes, would that member’s “presence” count towards a quorum being represented? **Response**: If a WRPP-AC member can’t physically attend a meeting but would like to participate remotely via Skype, then we will attempt to accommodate that. We will need to check with the City Attorney’s Office as to the quorum question.

There was some discussion amongst the group about whether there should be any language in the by-laws that speaks to the diversity of representation on the WRPP-AC. As there is language in the City Council Resolution that established the committee, it was deemed not to be necessary to also include such language in the by-laws.

The group also discussed how to advertise the WRPP-AC meetings. The committee agreed that it would be appropriate to post notice of the WRPP-AC meetings on the City Calendar of Events on [www.charlottesville.org](http://www.charlottesville.org) and at the office of the Clerk of Council in City Hall. Meeting minutes will be posted to the City’s WRPP webpage after they have been approved by the WRPP-AC.

A discussion about the duties of the committee followed, and culminated in a proposed amendment to the by-laws, Amendment #1. Proposed Amendment #1 adds to By-Laws Section IV: Duties, in order to capture an additional duty regarding the WRPP’s credits and incentives program assigned to the purview of the committee in City Council’s December 16, 2013 Resolution “Adopting a Stormwater Utility Fee Waiver and Water Quality Incentive Program for the City’s Water Resources Protection Program”. The additional duty is stated as follows, “To, from time to time, report to City Council on the appropriateness and effectiveness of the credits and incentives program”.

Following the end of this discussion Mr. Sweet proposed that the by-laws, with Amendment #1 as agreed upon by the committee, be adopted by the WRPP-AC. Mr. Sweet called for a vote on the matter and the Stormwater Utility/Water Resources Protection Program Advisory Committee By-Laws were adopted unanimously.

**Appointments**

Section VI: Meetings, of the WRPP-AC By-Laws stipulate that the committee shall designate a recording secretary and a chair for one-year terms. Mr. Sweet asked if any of the committee members cared to nominate themselves for the role of WRPP-AC Chair. Hearing no such nominations, the group discussed the role and responsibilities of the chair, as well as some desired characteristics of the committee member serving in that role. The discussion culminated in the nomination of Dave Hirschman to serve as the Chair of the WRPP-AC; the nomination was seconded. Mr. Sweet called for a vote on the nomination and Mr. Hirschman was unanimously approved as the Chair.

Mr. Sweet similarly asked if any of the committee members cared to nominate themselves for the Recording Secretary role. Meg Byerly Williams nominated herself for the role; the nomination was seconded. Mr. Sweet called for a vote on the nomination and Ms. Byerly Williams was unanimously approved as the Recording Secretary. The group agreed that Dan Frisbee will serve as the back-up to Ms. Byerly Williams should she be unable to attend one of the WRPP-AC meetings.
Discussion

As Chair of the WRPP-AC, Mr. Hirschman took over the duty of presiding over the remainder of the meeting. Committee members were encouraged to voice any questions they had in regards to the preparatory packet that was distributed prior to the meeting. Several committee members expressed that they have numerous questions and would be interested in City staff holding a two-hour information session/orientation for the new WRPP-AC. City staff agreed that this would be a prudent course of action that would facilitate more efficient meetings in the future. Mr. Sweet asked for committee members to submit any questions and comments they have by Friday January 24th, in advance of the information session, so that City staff could come to the session with feedback.

Mr. Hirschman asked the group to think about their priority topics for consideration by the WRPP-AC this year. After some discussion and brainstorming, the following topics came to the forefront:

- General messaging of the WRPP and stormwater utility to the community
- The stormwater utility fee credits and incentives programs
- The WRPP five year work plan and budget
- Roll-out of the WRPP and stormwater utility and how best the committee can be of assistance
- Pollution reduction requirements of the City’s municipal separate storm sewer system (MS4) permit, the associated costs to meet those requirements, and the revenue generated by the utility to fund implementation of projects aimed at meeting the requirements

Next Steps

The committee agreed to move the next WRPP-AC meeting up to March instead of waiting until April to meet again. The next meeting will include a discussion of the WRPP and stormwater utility roll-out, as well as further discussion and prioritization of the topics that have come to the forefront.

The meeting adjourned at 5:06 pm.
Welcome

Dan Sweet welcomed the WRPP-AC members to the second meeting of the committee and thanked them for their participation. In response, Dave Hirschman thanked both Mr. Sweet and Mr. Frisbee for the very helpful WRPP-AC Information Session held on February 20, 2014.

Comments on Meeting #1 Notes

Mr. Sweet asked the WRPP-AC members to review and comment on the meeting notes generated from the committee’s first meeting on January 16, 2014. One member made a request for page numbers on multiple-page documents. Another member requested that more detail be added to the discussion of Amendment #1 of the By-Laws. In particular, the Meeting #1 Notes should reflect the actual language of the additional duty added to By-Laws Section IV: Duties.

The members then discussed whether the committee should maintain a record of notes or more detailed minutes for each meeting. The group decided it was comfortable with the level of detail in Meeting #1 Notes and that these notes meet applicable requirements.

Following this discussion, Mr. Sweet proposed that the WRPP-AC approve Meeting #1 Notes, with the addition of information to the Amendment #1 discussion. Mr. Sweet called for a vote on the matter, and the notes were approved for publication on the City’s webpage, pending the agreed upon change.

Staff Briefing on WRPP Program Status

Mr. Sweet presented the City’s updated WRPP website to the group. The website’s main page describes the program, the stormwater utility fee, what the fee pays for, how the fee is calculated, the City’s webGIS tool, the credit program, and the Charlottesville Conservation Assistance Program (CAPP) incentive program for property owners. Additionally, the website links to the Stormwater Utility Ordinance and, in the future, will include a current events dashboard with a WRPP calendar. Mr. Sweet asked members to review the website and provide feedback. He also presented the WRPP Archive webpage, which serves as a clearinghouse for all past WRPP-related information.
Members decided that the website’s main page should mention the WRPP-AC and include a link to the archive webpage where WRPP-AC meeting notes should be housed. Members then discussed whether to list WRPP-AC members’ names on the website, and Mr. Sweet and Mr. Frisbee said they would look up the online precedent for the City’s other advisory boards.

Following the website discussion, one member suggested adding to the list of Frequently Asked Questions (FAQs) that staff created by including a question that will show Charlottesville is not the first municipality to adopt a stormwater utility. Members asked staff to share the final FAQs with the WRPP-AC for comment. Mr. Sweet agreed to circulate the document to members, noting that it would include the top 10 questions, along with a secondary list of other questions. Staff would like to limit the document to no more than 20 questions.

Mr. Sweet then discussed how staff are preparing for the stormwater utility’s first bill cycle. He reported that the City received the 2013 aerial photography of Charlottesville from the Virginia Information Technologies Agency’s (VITA) Virginia Geographic Information Network (VGIN). The City also commissioned VITA/VGIN’s contractor, Sanborn, to develop a new impervious area coverage for the City from this photography. City staff will be conducting a quality assurance/quality control review of the new impervious area data, as well as filling in any gaps in the data resulting from development activities occurring after the photographs were taken and before the end of 2013.

Following this, Mr. Sweet mentioned that the utility granted a fee waiver for the Rivanna trail, which is a paved trail on private land. To avoid billing errors, staff will review all parcels with impervious area that don’t have any structures, as well as all parcels close to the 300 square foot of impervious area threshold, below which a property is considered undeveloped and is not billable per the ordinance. Additionally, the GIS file is not exactly correct with regard to parcel shift, and 270 parcels require adjustment. Mr. Sweet then reported that staff is working to determine how to bill 120 multi-owner parcels throughout the City. For example, these include residential condominium parcels owned by a commonly held entity like a homeowners’ association (HOA) or LLC. Currently, there are only two parcels for which staff must work closely with the owners to determine how to bill.

Mr. Sweet noted that he receives approximately two to five calls per week from citizens regarding billing, and the billing system currently is in production testing. They will test run the bills within the week, giving staff approximately one month to work out any kinks in the system. Then Mr. Sweet stated that the utility’s plan is to update the aerial photograph and impervious area data every three to four years from the VITA/VGIN files, which encompass the entire state of Virginia. He noted that a new aerial photograph of the Charlottesville area costs approximately $8,000. Members decided to place this issue on the WRPP-AC end-of-year review list.

Then, Mr. Sweet reported that the City’s webGIS tool is live, and GIS data is now available to residents and will show the utility bill for a majority of the City’s properties. Members suggested adding a hyperlink to the webGIS tool to the petition for adjustment.
Finally, Mr. Sweet announced that a job posting for a third stormwater utility staff member would be posted at the end of the week.

**Information Session Recap**

Members agreed that Mr. Sweet and Mr. Frisbee did a great job organizing the members’ questions for the WRPP-AC Information Session held on February 20, 2014. In reflecting on the scope of questions addressed at the information session, Rebecca Quinn noted that the WRPP-AC should remember its charge as stated in the City Council resolution establishing the committee. She suggested that members should review that charge regularly to avoid discussing details outside the scope of that charge.

Members agreed that the information session provided a foundation for fully understanding the WRPP and stormwater utility in context and suggested that future information sessions may be necessary to inform new members.

**Agenda Discussion & Committee Member Assignments**

Chair Hirschman then led a discussion of a typical WRPP-AC meeting agenda and committee member assignments, presenting a draft agenda for the group to consider. Chair Hirschman suggested that the group should create a plan to organize meetings to promote efficiency and avoid delegating meeting agendas to City staff. He encouraged members to take ownership of the committee by undertaking these tasks themselves. Ms. Quinn reminded the group to keep the WRPP-AC’s charge in mind while considering the draft agenda.

Members then reviewed the draft agenda, which included the following items:

1. Approve minutes with edits from committee members (5 minutes)
2. Staff briefing on status and highlights of program (15-20 minutes)
3. Committee member driven topic & discussion: Each meeting, one or a couple of committee members will select a particular topic area to introduce and lead a discussion. These can be topics brainstormed at the 01/16/14 meeting or that came up during the orientation session (30 minutes)
4. Guest speaker on selected topic OR additional committee member topic (maybe not every meeting) (20-30 minutes)
5. Looking forward: quick review of upcoming committee meeting(s), topics, committee member assignments (10 minutes)
6. Committee member items (quick – anything an individual committee member wants to bring up. We will not discuss these right then and there, but they can be considered for future agenda items) (15 minutes)
7. Staff items (quick – anything outstanding issues City staff want to bring up) (10 minutes)
8. Adjourn

One member suggested that agenda item three should be more flexible, allowing for group discussion and program feedback. Following further discussion, members decided to combine agenda items three and four into a 45-minute information session/discussion that can originate with staff, the WRPP-AC, or another stakeholder on a relevant program topic. Further, members
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decided to add 15 minutes to agenda item two to extend it so that staff can brief WRPP-AC members on program status and to allow member feedback.

Members then considered discussion topics for upcoming meetings and generated the following topic list:

- Stormwater best management practices.
- Coordination between City departments to identify and prioritize projects to retrofit infrastructure in line with WRPP goals in order to make the most of these opportunities.
- Assisting churches and other non-profits with maximizing the WRPP credit program. Chair Hirschman is working on an application for Sojourners United Church of Christ, and Chuck Ward works with First Baptist Church. Either could present on this topic.
- Program priorities and funding needs. For example, using the spatial database of the City’s stormwater and other infrastructure work for updates.
- Properties receiving credits and how BMPs are maintained on these properties. Development of case studies using City BMP data, Neighborhood Development Services inspection data, and the credit program’s BMP inventory and maintenance records. An annual committee update on this topic may be appropriate.
- For the last WRPP-AC meeting of the year, City staff should present an end-of-year program report to assist members with their report.

Members then chose discussion topics for the July 17, 2014 meeting and agreed to discuss the following:

- Priorities for the capital improvement program.
- Status of properties receiving credits. Chair Hirschman agreed to present a case study exploring Sojourners United Church of Christ experience with the credit program.

CCAP Discussion

Alyson Sappington then gave an overview of the Charlottesville Conservation Assistance Program (CCAP), which launched in January 2014. Following that, Nicola McGoff presented the CCAP’s process, which involves initial inquiries, application submission, a site visit, completing work, another site visit, and reimbursement. Ms. McGoff further noted that CCAP provides incentive funding for the following nine urban BMPs: (1) pet waste stations, (2) impervious surface removal, (3) turf conversion to native plants, (4) rain gardens, (5) bioretention, (6) rainwater harvesting, (7) vegetated stormwater conveyances, (8) constructed wetlands, and (9) permeable pavement.

Ms. McGoff then stated that CCAP has a budget from the City of Charlottesville of $32,000 per year for the first five years. Of this $32,000, $28,000 is dedicating to installation of BMPs and the remainder is for administrative costs of running the program. This money comes from stormwater utility fee revenue. Additionally, the Virginia Conservation Assistance Program (VCAP) has grant award funding and may fund up to 50 percent of a BMP’s cost, with a CCAP cost share, if funding is available. This potential VCAP funding would apply to only four BMP practices that it shares in common with CCAP.

According to Ms. McGoff, CCAP information is spreading mostly by word of mouth, and homeowners with stormwater drainage problems are showing the greatest interest in the
Ms. McGoff noted that the type of CCAP applications they receive will determine how far their budget will stretch. She said that CCAP plans to reach out to local landscapers and master gardeners and reminded members that the VCAP Implementation and Design Manual is available on the Thomas Jefferson Soil and Water Conservation District’s website.

Ms. McGoff then discussed the CCAP incentive program’s maintenance requirements, which apply to BMPs for five to ten years after installation. Upon acceptance into the program, applicants sign a contract and agree to either maintain the BMP or reimburse a prorated amount if it is not maintained. Because it is not a contract of record, Ms. McGoff noted that it is difficult to keep up with changes in ownership and track down previous owners. She stated that larger projects are easier to monitor than smaller ones. Ms. McGoff said that CCAP has a methodology for prioritizing BMPs and will review and prioritize applications quarterly. She concluded by noting that CCAP will review applications more often if they receive more than anticipated.

Committee Member Items

Chair Hirschman then opened the meeting to topics any committee member would like to discuss. Members discussed whether WRPP-AC member names and contact information should appear on the WRPP website because some citizens will want to know who is on the committee. Some of the City’s advisory boards include this information online, and some do not. Following discussion, the group decided to include WRPP-AC member names on the website with no contact information. Instead, they agreed to post the City’s WRPP email address for citizens who have questions, and the group requested that staff forward citizen comments to the committee as appropriate. Additionally, committee members agreed to forward to staff any WRPP-related emails they receive in personal email accounts.

Morgan Butler then suggested including on each meeting agenda the list of items to address in the end-of-year report. Both Ms. Quinn and Meg Byerly Williams are keeping this list, and Ms. Byerly Williams agreed to merge these lists and send to Chair Hirschman and staff for the July 17 meeting agenda.

Ms. Quinn also suggested including on the meeting agenda the committee’s overall charge of balancing the cost of impacts with the benefits associated with the stormwater utility. Mr. Sweet noted that the utility is committed to providing a medium level of service at a low rate.

Brian Becker then asked about the status of the stormwater bill that would waive stormwater utility fees for religious organizations. Staff answered that it did not pass. A question was raised about Albemarle County’s approach to stormwater funding and staff answered that Albemarle County is still considering a utility fee or service model but is addressing short term stormwater funding with a tax increase. Mr. Becker then wondered whether this might present an opportunity for the City to work with the County and whether the committee should create a Google group document to keep track of notes.

Staff Items

Mr. Sweet shared some feedback he received from a homeowner. He had walked this homeowner through the credit program process, which was difficult because the home has gravel
drives that count as an impervious surface under the program. He gave the homeowner the program’s “impervious” definition, as well as the petition for adjustment. Mr. Sweet stated that citizens, including this homeowner, really want their stormwater utility bill to reflect changes made to a property to reduce stormwater runoff. He said that this is impossible because the evaluation is based solely on the presence or absence of surfaces that meet the impervious surface definition.

Mr. Sweet noted that citizens are being proactive about the upcoming utility bills and are asking good questions. As fees are generated, staff are fixing problems and correcting errors they find in the database. Mr. Sweet said that the level of service staff can provide right now is high but that it will drop after bills are mailed. He said that the City will hire a temporary employee to respond to the majority of general calls from March through June and that he will speak with citizens who need more specific assistance. Additionally, staff will hold an information session regarding the stormwater utility for City employees who may receive calls. Mr. Sweet informed the group that the City’s consultant submitted a 17-page draft of the FAQs on the day prior to this WRPP-AC meeting.

Finally, members asked if staff was considering creating a presentation for City Council or drafting any press releases. Mr. Sweet said staff would consider these suggestions and let the committee know if they decide to proceed with either.

**Adjournment**

The meeting adjourned at 5:02 pm.
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Charlottesville Water Resources Protection Program Advisory Committee

Meeting #3: Meeting Notes
Date: July 17, 2014, 3:00 p.m. to 5:00 p.m.
Location: Charlottesville City Hall, 605 E. Main Street, Charlottesville, VA 22902, Basement Conference Room

Attendees:
Advisory Committee Members: Brian Becker, Morgan Butler, Dave Hirschman, Leslie Middleton, Rebecca Quinn, Alyson Sappington, Trey Steigman, Chuck Ward

City Staff: Dan Sweet, Stormwater Utility Administrator, Lauren Hildebrand, Director of Utilities, Bart Pfautz, Stormwater Technician

Members of the public: Nicola McGoff, Thomas Jefferson Soil and Water Conservation District

Comments on Meeting #2 Notes
Mr. Hirschman asked the WRPP-AC members to review and comment on the meeting notes generated from the committee’s second meeting on March 11, 2014. Ms. Middleton asked for clarification of “parcel shift” mentioned on page 2, fourth paragraph. Mr. Sweet explained that the City’s parcel GIS layer was created by a vendor in the early 2000’s and there are limitations in the methodology used that effect accuracy. The vendor produced the parcel layer through “rubber sheeting” and thus the parcel scanned deed books. Most of the deed books do not include coordinate references and therefore are not geospatially related to a coordinate system. Therefore, the layer is not as positionally accurate as it could be using modern, more resource intensive methods. There is however excellent GIS staff in the City Assessor’s Office whom is working to adjust parcels for improved accuracy on a parcel by parcel basis as the errors become evident. City staff are also looking at more wholesale improvements that can be considered to improve the accuracy of the parcel layer. The parcel layer will continue to be a source of error in Stormwater Utility Fee billing for the foreseeable future.

Following this discussion, Mr. Hirschman proposed that the WRPP-AC approve Meeting #2 Notes. The AC approved the Meeting #2 Notes.

Introductions
Dan Sweet introduced Bart Pfautz, the new hire filling the new Stormwater Technician position. Since it had been a while since the last meeting and since Mr. Pfautz was in attendance for the first time, Mr. Hirschman asked that everyone in the room introduce themselves.
Staff Briefing on WRPP Program Status

Mr. Sweet presented the City’s update concerning the first billing of the Stormwater Utility Fee. The original estimate of what would be sent out in the first billing was $889,000, with estimated collected revenue of $863,739. The actual total of bills sent out in the first billing was $946,885.11 with collected revenue of $922,608.11. The revenue targets were met and exceeded. Approximately ninety-eight percent of billed parcels paid their bill. All escrow parcels paid. Ms. Quinn inquired as to what percent of the parcels billed were escrow. Mr. Sweet did not have that figure at hand but said it would be possible to determine.

Mr. Sweet explained that the City paid to upgrade the impervious surface layer using more recent aerial imagery. Initially it was not clear as to whether the increased revenue generated with the upgraded impervious surface layer would cover the cost of the upgrade. Mr. Sweet reported that an additional $60,000 in revenue was generated, exceeding the cost of the upgrade.

Mr. Sweet discussed the parcel shift problem in more detail. He stated that it is not, in his opinion, the burden of the Stormwater Utility to invest substantial resources and money to address the geospatial accuracy of the parcel layer, as this issue predates the Utility and the parcel data is used by multiple City departments.

It is the burden of the Utility, however, to produce (or have produced) the impervious surface layer from the aerial imagery. The plan is to produce a new impervious surface layer every two to four years, which is how often the City pays to acquire new aerial imagery. A workflow has also been established in Neighborhood Development Services (NDS) to GPS any new or re-development. This will aid in the creation of accurate and complete impervious surface layers.

Mr. Sweet continued with a discussion of the results of the first billing. At the time of the meeting there were 309 past due bills. In thirty days, the City will begin the process of collecting overdue bills through liens and other available means.

To sum up the results of the first billing Mr. Sweet stated that the payment rate exceeded expectations, that the update of the impervious surface layer was worth it in increased revenue, that the Utility exceeded its revenue goals, and that on a whole everything went well.

Mr. Sweet kept track of the phones calls he received from citizens concerning the Stormwater Utility Fee. He received approximately 152 phone calls total. The City Treasurer, whom collects the fee, received approximately 175 calls. This amounts to approximately 2% of the total number of bill recipients. Of these calls 53 just wanted more information, 9 had general questions, 12 were upset or expressed how this fee was a hardship for them, and 20 to 30 were upset because they have drainage/flooding problems on their property and are now paying for stormwater infrastructure that does not appear to work for them. There were also 6 hang-ups.
Mr. Sweet attributed the relatively low number of calls to the billing insert, WRPP webpage, years of proactive public outreach, and to the City’s WebGIS, which includes the impervious surface layer and allows citizens to do their own research on how the fee was determined for their parcel. He stated that putting the impervious surface layer on the public WebGIS was a potential risk, and that not all municipalities do this, but that it turned out to be beneficial.

A frequent concern was expressed by callers concerning the categorization of gravel and of wood decks as impervious surfaces. There was also some consternation expressed by citizens who have installed “permeable” pavement but of types and specifications that do not meet the official standards set forth in the Credit Manual and state specifications.

Another source of frustration with the Stormwater Utility Fee comes from those citizens who have invested in stormwater BMPs but who implemented these projects before the incentives and credit programs were established. Mr. Sweet suggested that a program of award or recognition be established to recognize these good stewards. Such a program might dovetail with CCAP and might also qualify as outreach.

There were 51 Petitions for Adjustment of the fee filed. Of these 17 were denied. Twenty-five were approved. Of these 25, 13-14 were wrong due, at least in part, to parcel error, seven were adjusted because the applicant provided more accurate measurements, and seven were adjusted because there was error in the impervious surface layer for the parcel. The refunds that resulted included twelve refunds at $7.20, five refunds at $14.40, one refund at $21.60, one refund at $50.40, and one refund at $57.60.

Mr. Sweet described the process of billing the railroad for the Stormwater Utility Fee. A bill was sent to the C&O Railroad Company which was forwarded to CSX. CSX submitted a Petition for Adjustment. There was an error in the fee calculation in that CSX owns about half of the tracks in Charlottesville while Norfolk Southern (NS) owns the other half (which CSX pointed out). A bill will be sent to NS and once paid CSX will be refunded for what they were overbilled. CSX is also claiming that railroad right of way is pervious. Buckingham Branch is ultimately responsible for payment of the fee.

Mr. Sweet has received two applications for the credits program. He will process one for an individual homeowner given the facility on the property provides TMDL credit as a test case in providing credit application assistance.

A letter will be sent at the end of the month to all BMP owners informing them about the credits program.
Preparation for the Master Plan continues and it is anticipated that a request for proposal (RFP) will go out towards the end of the year.

Mr. Sweet discussed some small projects related to the WRPP and Stormwater Utility.

- A failed bioretention facility at Smith Aquatic Center is being restored to function as intended.
- A linear dry swale will be part of a streetscape project on Cherry Ave. between 6th St. and 7½th St. This project will be out to bid soon and is expected to result in the reduction of approximately a third of a pound of phosphorous for an estimated price of $40,000.
- A facility at Forest Hills Park is not functioning and is going to be revamped to function as intended.
- A study of Moores Creek is underway to identify restoration opportunities and determine current conditions. Included as part of this study was a concept plan for the Azalea Park area of Moores Creek. Ecosystem Services LLC is the consultant for the project.
- At Quarry Park, a low-water crossing will be removed. This was an old crossing to the quarry and is no longer in use. The stream is anticipated to self-adjust. This project will start soon.
- Approximately 1,500 sq. ft. of permeable asphalt pavement is being considered as part of site renovation to the City’s Human Services Building. This will result in the removal of two-tenths of a pound of phosphorous for a project cost of $20,000. This location is ideal for this type of pervious pavement. The area does not receive heavy vehicular traffic. With regular sweeper-truck maintenance the project should have a long service life.

Mr. Sweet next addressed the stormwater infrastructure rehabilitation efforts. All thirteen miles of clay and metal pipe located within the City right of way are scheduled to be evaluated and rehabilitated over a 10 year period. No utility money has been spent on this work yet. Instead, remaining pre-utility monies are being spent. A limited number of projects on private property that are connected to City storm pipes or provide a drainage function to City right of way are being evaluated for funding with pipe rehabilitation dollars.

Mr. Sweet concluded with an admission that stormwater and drainage is complex in terms of the law and within the City government organization, but that these will be topics expanded upon after some trial projects have been worked through.

A few discussions arose from Mr. Sweet’s presentation.

- There has been back and forth with Albemarle County Schools concerning a fee sent to them for two properties. These properties are in the City limits and the County School Board is not listed as an MS4 permit holder. The County Schools submitted a Petition for Adjustment documenting that the School Board is covered under the County’s MS4 permit and stated that the School Board is a County Department and not a separate public body. The City has denied the County’s petition based on the legal requirement that to be fee waived, a property must be owned by an entity that holds an MS4 permit.
The City Schools have seven properties subject to the Stormwater Utility Fee and were subject to approximately $39,000 in fees. The revenue to pay the fees is allocated to the City Schools by City Council using General Funds.

- Another question and discussion concerned carryover reserves. There is no carryover of operational budgets. Unspent operational budgets for enterprise funds like the Utility go into a specific account that can be accessed through a request and approval process as funding needs arise. Capital budgets rollover. It is part of the standard, required budgeting process to include a 60 day cash reserve. In addition, the City budgets for delinquencies and bad debts and refunds for approved Petitions. This is where the 6% carryover/reserves figure comes from.

**VCAP and CCAP Discussion**
Nicola McGoff gave a presentation concerning VCAP (Virginia Conservation Assistance Program) and CCAP (Charlottesville Conservation Assistance Program). The goal of VCAP is the reduction of stormwater runoff and the improvement in water quality of any runoff in order to assist in meeting Virginia’s TMDL requirements. This is accomplished through a cost-sharing incentive for implementation of urban stormwater BMPs. VCAP started in 2011 with the production of a technical manual for urban stormwater BMPs and the completion of example projects by the participating Soil and Water Conservation Districts (SWCD). Four SWCDs and Randolph-Macon College were involved in the production of the manual. The process took two years and resulted in a 10-BMP manual. The four SWCDs then implemented sample BMP projects. Each District sought outside grants to accomplish these projects, and the grants were shared amongst the four Districts. Ms. McGoff presented on each of the Districts’ projects and expanded on the requirements for these types of projects under VCAP. These projects included rainwater harvesting, pet waste stations, turf to natives, and rain gardens.

Hanover-Caroline SWCD brought funding for rainwater harvesting projects. Some requirements of the cost-share program for rainwater harvesting include 250 gallon or greater capacity, year-round water use plan, ten year maintenance plan, engineering stamp, and collection ability of 1” of rainfall. This program is encouraged through an incentive of $2.00/gallon up to $12,000 as opposed to a cost-share due to the variety of costs that may or may not be incurred during the implementation of different systems.

Piedmont SWCD brought funding for pet waste station projects with a grant for $2,700 received from the Chesapeake Bay Restoration Fund. Seven stations were installed in the Dunlora neighborhood in Albemarle County through the neighborhood association, whom now owns and maintains the stations. Ms. McGoff observed that few neighborhoods seem interested in having waste receptacles installed as part of stations and that signs and bags are more appealing. She also observed that soon after these types of projects are implemented surrounding neighborhoods often become interested in acquiring
their own. This program is a cost-share of 75% up to $400 for individual stations. Three years of maintenance is required. These stations also serve a large education/outreach function.

Thomas-Jefferson SWCD brought funding for turf to native projects. They received two grants totaling $38,430. There are three types of turf to native transition and each has a cost-share rate. Turf to no-mow-forest is $75/1,000 sq. ft., turf to native grasses is $75/1,000 sq. ft., and turf to landscape shrubs/trees is $250/1,000 sq. ft. Ideally as much soil as possible is left in place during the transition. The transition to natives ultimately improves the soil structure and allows more infiltration of stormwater to occur. Natives also require less input of water and nutrients to keep healthy as compared with turf.

Culpepper SWCD brought funding for rain garden installations. The grant was $7,550 from the Chesapeake Bay Restoration Fund. Cost share rates are 75% with a maximum of $2,000 per rain garden. One rain garden was installed in each of the four Districts.

Ms. McGoff then discussed CCAP specifically. CCAP started with $32,000 in funds. CCAP had $16,000 to disburse in January and currently has $4,000 remaining. Ms. McGoff stated that people like the program. There were 21 inquiries into CCAP since May 2014 when the utility flyer was mailed out advertising the incentives program. Of these 16 led to site visits. These resulted in four applications. These four applications were for turf to natives projects. Ms. McGoff stated that this was a fairly low rate of return on applications resulting from site visits. Ms. McGoff believes that about five hours of TJSWCD staff technical assistance went into getting each project to the application stage.

Outreach concerning CCAP was conducted at numerous venues. A more formal outreach plan is currently being developed. Ms. McGoff expressed interest in any suggestions for future outreach venues.

Some issues and misconceptions concerning CCAP have arisen or become apparent over the last six months. One is that citizens want CCAP to cover all the costs of their projects. The other is that, as discussed earlier, those people who implemented BMP projects before CCAP was initiated are upset that they cannot get any retroactive cost-share. Citizens also expressed frustration at dealing with/being affected by other parcels’ stormwater runoff. Ms. McGoff pointed out that a programmatic contradiction seems to exist between the turf to native component of CCAP and a City ordinance concerning native landscapes. The AC wanted the addressing of this and other contradictions with City code added to the **END OF YEAR LIST**. Another problem is the negative branding the CCAP and TJSWCD is receiving by association with the Stormwater Utility Fee. There is confusion concerning the relationship between the fee, CCAP, and the credits program. Ms. McGoff suggested it might be simpler to have the incentives program as part of the WRPP instead of affiliated with the stormwater utility. The clarification of these for the public is also a matter the AC wanted added to the **END OF YEAR LIST**.
Sojourners Church Bioretention Case Study

Dave Hirschman presented on his work with the Sojourners Church bioretention project. He is one of the few people who has been through the process of getting a CCAP project approved and under way. Mr. Hirschman stated that there are many puzzle pieces and it may be too much for an average citizen to work through. This particular project was funded through grants received from the Rivanna Conservation Society and Go X-Stream grants. The Church’s goals, beyond being good stewards, include reducing erosion of their driveway and other areas and the potential reduction of their Stormwater Utility Fee. The project’s CCAP application has been approved and is now in the design phase. The topography of the site has been surveyed as the City’s topographic layer is not accurate nor fine enough for planning the redirection of runoff. An impervious surface will be removed and three rain gardens installed. These will qualify as a level-1 bioretention facility. The projected future savings from Utility credits will be $360.00/year. The cost of the project is projected at $30,000. CCAP funding will cover $10,000. Mr. Hirschman concluded by stating that the CCAP program is fairly complicated and for many projects a third-party professional may need to be involved. We should consider how this works for simple homeowner projects in the future.

Continued Discussion

Mr. Sweet reiterated that, by law, the program is obligated to offer incentives and credits and that the City’s program was developed by a citizen focus group. The group discussed the potential contradiction between the marketing of CCAP and the credits as ways to reduce one’s Stormwater Utility Fee and the reality that most landowners will not utilize the credit program. The AC discussed potentially trying to remarket these BMPs as “the right thing to do,” as opposed to ways to reduce your fee.

Upcoming Committee Meetings

In October, the fourth AC meeting will focus on the annual report to City Council. Ms. Quinn requested that AC members think about and circulate via email ideas for main topics before the next AC meeting. Mr. Hirschman stated that the AC needs to get on the agenda of the desired City Council meeting well in advance or it will fill up. Mr. Sweet stated that the City has no specific requirement to report to City Council but he believes it would be good to do so at the same time the AC does.

Mr. Sweet will send out an email poll to the group to determine the October meeting date. The date will be either 9/30, 10/21, or 10/28. The topic will be the annual report to Council.

Committee Meeting Items

Chair Hirschman then opened the meeting to topics any committee member wanted to discuss.
Mr. Becker mentioned a statewide GIS application concerning implementation of BMPs developed for Maryland by Maryland Department of the Environment. Apparently BMPs can be overlaid on a parcel and the effects on pollution reduction and etc. determined. Mr. Hirschman stated that the James River Association has a similar application. Mr. Sweet took note of these GIS applications and mentioned that it might be beneficial for the City to implement something similar.

Ms. Middleton inquired about acquiring a presentation concerning the WRPP programs that could be used for outreach by the AC members. Mr. Sweet says such a PowerPoint exists and that he would try to get it to the group. Mr. Middleton also requested that City staff reflect upon if and how the AC has been helpful in advising them on the WRPP. Mr. Sweet said he would contemplate this before the next AC meeting.

Mr. Hirschman expressed interest in organizing a BMP bike tour and asked if the group was interested. Many expressed interest. He suggested October as an ideal time and the AC as the sponsor. The group agreed this would be a good way to publicize the WRPP.

Mr. Hirschman also discussed his concern over not appearing to have a conflict of interest as his small business may be involved in the type of work that the AC and WRPP are involved in promoting. After talking with Mr. Sweet and the rest of the group it was determined that there is not a conflict of interest and Mr. Hirschman should remain on the AC. Mr. Sweet noted that the City does not make recommendations to citizens as to whom they hire to perform work related to stormwater projects.

**Adjournment**

Mr. Sweet stated that it had been a good first eight months for the program. The meeting adjourned at approximately 5:10 p.m.
Charlottesville Water Resources Protection Program Advisory Committee

Meeting #4: Meeting Notes
Date: October 6, 2014, 3:00 p.m. to 5:00 p.m.
Location: Charlottesville City Hall, 605 E. Main Street, Charlottesville, VA 22902, Basement Conference Room

Attendees:
Advisory Committee Members: Brian Becker, Morgan Butler, Dave Hirschman, Leslie Middleton, Rebecca Quinn, Alyson Sappington, Trey Steigman, Chuck Ward, Meg Byerly Williams

City Staff: Dan Sweet, Stormwater Utility Administrator; Lauren Hildebrand, Director of Utilities; Bart Pfautz, Stormwater Technician

Comments on Meeting #3 Notes
Dave Hirschman asked the WRPP-AC members to review and comment on the meeting notes generated from the committee’s second meeting on July 17, 2014. Rebecca Quinn asked about the budget carryover reserves discussion described in bullet format on the bottom of page 4. Dan Sweet responded with further explanation of budget surpluses for the utility’s operational and capital budgets. Following this, Chuck Ward suggested that the notes should be edited to remove typos. Mr. Hirschman proposed that the WRPP-AC approve Meeting #3 Notes. The AC approved the Meeting #3 Notes.

Staff Briefing on WRPP Program Status
Mr. Sweet then presented a billing update, new information about ongoing and upcoming stormwater projects, the master plan’s status, the MS4 Permit report, and the application and re-application process for new WRPP-AC members.

Mr. Sweet reported that staff had finalized the petitions for adjustment, as well as the second billing cycle for the year. He anticipates mailing the bills on or around November 5th, that both resulting calls and petitions will decrease from the first billing cycle, and that the billing process will be routine in nature with nothing new and no surprises. Ms. Quinn asked whether the utility’s list of Frequently Asked Questions should be updated following feedback from the first billing cycle. Mr. Sweet responded that he would check with staff about this. He noted that the November billing statements will not include an informational insert this cycle given that the community seems to have accepted and understands the program and because many of the people calling with questions do not read the insert. Alyson Sappington noted that CAPP calls had died down as well. Mr. Sweet concluded this discussion explaining that utility staff would attend the Government Services Day at the nTelos Wireless Pavilion on Friday, October 17th to talk with the public and answer questions. He said staff would try to attend the Fry Springs neighborhood Oktoberfest as well for the same purpose.

Next, Mr. Sweet reported on the status of several small stormwater projects related to the WRPP and stormwater utility:
- The Cherry Avenue linear dry swale project is in the construction procurement phase. The bids are in, and negotiations will take place with contractors. The project will be
constructed this fall. The project features street narrowing and sidewalk improvements and will treat one-third of a pound of phosphorus at a cost of $40,000.

- At the City’s Human Services Building, a pilot project will replace 1,500 sq. ft. of pavement with permeable asphalt pavement. This will include half of the fuel station’s roof and the Human Services Building’s back roof and will remove one-tenth of a pound of phosphorous for a project cost of $20,000. The City will seek bids for the project.

- The Moores Creek Corridor Study is complete. In addition to assessing the stream corridor from Monticello Road to Sunset Ave, a stream restoration concept plan for the section of Moores Creek within Azalea Park was provided to address failures of the previous restoration effort. The creek restoration will include reconstruction, invasive removal, and better public access.

- The City received a grant to remove impervious area, install permeable pavers and construct a bioretention facility at Charlottesville High School within an existing parking lot.

- The Venable School parking lot bioretention area is not functioning as designed, and the City is investigating how it can be restored to function as designed.

- At Quarry Park, a low-water crossing will be removed. This was an old crossing to the quarry and is no longer in use. The stream is anticipated to self-adjust. This project will start soon.

- A facility at Forest Hill Park is not functioning as designed and is going to be revamped to function as designed.

- Restoration efforts are underway to a failed bioretention facility at Smith Aquatic Center to meet the “functioning as designed” standard.

During this presentation of stormwater projects, WRPP-AC members discussed what cost per pound of treated phosphorous is considered a good return on value and whether the City is spending too much money on these small projects, opening the program up to public criticism. Mr. Sweet responded that the cost range is large and that the City is implementing these stormwater projects to get some data points to help answer this question in an unknown landscape. He noted that the master planning process will yield more information and that it is hard to achieve a cost lower than $150,000 per pound of phosphorous for small retrofits when factoring in design, construction, and maintenance expenses. He said many cost closer to $250,000 per pound of phosphorous. Members also asked about overall targets for loads and reductions per acre. Mr. Sweet responded that the City must meet 5% by 2018, and staff can report on loads and reductions in January.

While discussing the Moores Creek project, Ms. Quinn asked whether excessive fine sediment loads exist in that creek, and Mr. Sweet answered that they do but can be transported through the reach with proper stream restoration design. Members noted that many streams banks in the City are in bad shape. Mr. Sweet responded that staff will assess streams. When asked whether the City ever works with the County on these issues, Mr. Sweet responded that they do work with the County when that is possible.

Mr. Sweet then reported that staff held a meeting this week to formulate a master plan strategy. The Request for Proposals is under development, and they hope to have someone working on the plan by April. Morgan Butler asked what the WRPP-AC’s role is for the master plan. Mr. Sweet answered that staff will report on the process at the WRPP-AC’s meeting in early January to obtain feedback. He said
the WRPP-AC should make sure the master plan is consistent with the stormwater utility’s priorities and drivers.

After discussing the master plan, Mr. Sweet stated that the MS4 Permit Report was submitted, and the City is waiting for feedback from DEQ, after which they will make revisions. Finally, Mr. Sweet announced that the two one-year WRPP-AC member terms are ending in December and that these two members should send an email to the City Council Clerk if they wish to reactivate their applications. He noted that City Council will reopen the application process to the public for these two spots.

**End-of-Year Report Discussion**

Mr. Hirschman then led a discussion of the WRPP-AC’s end of year report. He said that the report should be brief, two to three pages, and uncomplicated. Ms. Quinn asked if there is any direction for the report, and Mr. Hirschman responded that there are no instructions for the report and suggested that the WRPP-AC offer a brief report on this year’s activities. He stated that the WRPP-AC should complete the report by the end of the year because two of its members’ terms end in December. He then began a brainstorming session to determine the report’s content. Mr. Sweet offered to let the WRPP-AC include in the report the bulleted list of results from the stormwater utility’s first billing cycle. The group used the list of duties from the WRPP-AC bylaws and resolution to create the following outline for the report:

1. **Overview of WRPP**
   a. Restate WRPP-AC’s charge
      i. Explain what AC’s job is
      ii. State how we organized ourselves: bylaws, information session, meetings
   b. Provide summary of WRPP-AC’s activities
   c. Recommend member composition for WRPP-AC, e.g., include business community

2. **Periodic Priorities and Funding Needs/Adjustments in fee rate**
   a. Provide re-cap of program activities
      i. From operational budget
      ii. Reference billing cycle bullet point data (place full list in appendix with a summary of highlights in report?)
   b. Explain that it’s too soon to evaluate priorities and rate; need master plan first
   c. Will not provide evaluation until ~FY 17 (3-5 years) when master plan is complete
   d. Note that FY14 was a transition year between the general fund and utility funds. Point out that general funds pay for ongoing maintenance and the utility pays for new services.

3. **Monitor Form and Implementation of Program**
   a. Appropriateness and Effectiveness Water Quality Incentive Program
      i. CCAP approved 10 applications for a good assortment of practices
      ii. One completed project
   b. Pipe rehab and other in-the-ground projects
      i. From capital budget
ii. Include descriptions and current status of small stormwater projects
   c. Public education to get citizens engaged
      i. List information products and where available
      ii. Recommendation: create PPT presentation for WRPP-AC to use
   d. Stormwater Utility Fee Credit Policy
      i. Program is so complex, it won’t be used unless simplified or rate increased; does not make business sense. City received no responses to 195 letters sent to every BMP owner eligible for credit program.
      ii. Recommendation: Market as a stewardship opportunity: Lead with stewardship because it’s the right thing to do.
      iii. Recommendation: Create an award program and offer recognition signs for those who implement BMPs. Consider amending credit program to include these awards.

4. Looking Forward/Focus for Upcoming Year
   a. Open house for businesses and nonprofits
   b. Use PPT presentation for neighborhood associations
   c. Offer tour of BMPs and problems
   d. WRPP-AC participation on committees

5. Thank staff and WRPP-AC members for their work

While creating the report outline, the group discussed several related items:

- The group decided to not address the aerial photo purchasing plan in the report because the City is comfortable with the current plan.
- Although the FY14 audited report is necessary for the WRPP-AC’s program evaluation, it will not be complete before this report is finalized. WRPP-AC members stressed that it is important for citizens to know how much money is collected and how it is spent. Mr. Sweet explained that the stormwater utility collected almost $1 million in fees, which channeled into the capital fund and operational fund. The capital fund finances the master plan, pipe rehabilitation, and an expanded neighborhood drainage program, while the operational fund finances staff salaries, fixed costs, the credit and incentives programs, and overhead/management expenses. Mr. Sweet explained that the utility has not spent any capital funds yet because it spent down remaining pre-utility capital funds and some available general funds prior to the end of the fiscal year, at which point unspent operational funds go to fund balance. The capital funds roll over and can continue to be spent. The group discussed whether the report should include this information with WRPP-AC comments. Members decided that the report should note that FY14 was a transition year between the non-utility and utility funds. Also, the report should point out that general funds pay for existing services and the utility pays for new services per the program adopted by City Council. The outline above reflects this information.
Members asked Mr. Sweet if he could think of anything else the report should capture to be helpful to him. Mr. Sweet indicated that he has what he needs to move forward with program information.

Mr. Hirschman then asked for volunteers to draft the report, reminding members that the report should be only two to three pages long. The following members volunteered to draft the report:

- **Section 1:** Leslie Middleton and Morgan Butler
- **Section 2:** Rebecca Quinn and Trey Steigman
- **Section 3:** Brian Becker and Alyson Sappington

Mr. Hirschman asked the volunteers to email their sections to him by Friday, October 31st. After this, Mr. Hirschman volunteered to merge and edit the sections and email the draft report to all members by November 15th. After he receives committee approval, Mr. Hirschman will add Section 4 and send the final draft out to members in mid December. Meg Byerly Williams will assist Mr. Hirschman with this and will review all meeting notes and the end-of-year review list to identify any other recommendations. She will send these to Mr. Hirschman for inclusion in the report. Additionally, she agreed to send a typed outline to members within a week of this meeting.

**Priorities for 2015**

Mr. Hirschman asked members to identify the WRPP-AC’s priorities for 2015. Members generated the following list of possible next steps:

- Become more active than just listening to staff reports about the program and writing reports
- Offer workshops/sessions for businesses and nonprofits that have large amounts of land
- Engage local media to inform public about April billing
- Hold an open house
- Use PPT presentation to help educate public
- Host a bike tour/treasure hunt to highlight BMPs, as well as negative stormwater impacts
- Help determine TMDL goals
- Assist internal staff committees
- Attend more information sessions if post-billing work is not overwhelming for staff
- Engage community in decision making process by polling public about project prioritization; create public input portal
- Advertise opportunities for public engagement in billing inserts or at open houses

**Committee Member Items & Staff Items**

In the interest of time, members agreed to skip these two items for this meeting.

**Adjournment**

Mr. Hirschman thanked staff and WRPP-AC members for their work. The meeting adjourned at 5:00 p.m.
Introduction

The Water Resources Protection Program Advisory Committee (WRPP-AC) was established to advise City Council and City staff on issues regarding continued development and implementation of the Water Resources Protection Program (WRPP) and Stormwater Utility. Among other responsibilities, the WRPP-AC is charged with making an annual report to City Council.

This FY2014 report contains the following sections:

- **Section 1** provides an overview of the WRPP-AC’s duties, current membership, and first-year activities.
- **Section 2** includes a WRPP funding summary for the first stormwater utility fee billing cycle and assesses WRPP priorities and funding needs.
- **Section 3** monitors WRPP program implementation, describing and evaluating the Water Quality Incentive Program, Stormwater Utility Fee Credit Policy, infrastructure rehabilitation and project implementation, and public education and citizen engagement.
- **Section 4** concludes with suggested WRPP-AC activities for FY2015.

The City of Charlottesville’s WRPP is designed to manage the City’s water resources and address increasingly stringent stormwater management regulations in an economically practicable and sustainable manner.

In February 2013, City Council established the stormwater utility fee to provide an adequate and stable source of funding for the WRPP. The stormwater utility fee is a "fee for service" based on the amount of impervious surface area on individual properties (impervious area is a basic representation of the amount of stormwater that drains from properties). Revenue from fees is deposited in a dedicated Stormwater Utility Fund that can only be used for services and activities to accomplish the goals of the WRPP:

- Meeting state and federal regulatory requirements contained in the City's stormwater permit;
- Repairing and replacing deteriorating stormwater pipes and structures;
- Identifying and implementing capital projects, including:
  - Rehabilitation, replacement, and repair of City owned stormwater pipe systems;
  - Stormwater retrofits to attain mandated pollution reductions;
  - Drainage improvement projects to address local flooding and drainage issues;
  - Stewardship projects to preserve, enhance, and restore the integrity of the City's water resources; and
- Developing a City-wide Water Resources Master Plan to identify, select, and
prioritize projects to accomplish the WRPP’s goals and objectives.

Section 1. WRPP-AC Overview

WRPP-AC Duties

As established by City Council resolutions dated February 19, 2013 and December 16, 2013, the WRPP-AC is tasked with the following duties:

A. Engage in matters pertaining to the Water Resources Protection Program;
B. Conduct periodic assessments of program priorities and funding needs, including recommendations for potential adjustments in the stormwater utility fee rate by City Council once specific program objectives or milestones have been satisfied;
C. Monitor the formulation and implementation of the Water Resources Protection Program including, but not limited to, the following elements;
   i. Master planning;
   ii. Infrastructure rehabilitation, repair, and maintenance;
   iii. Progress with respect to pollutant reduction requirements established via the municipal separate storm sewer system (MS4) general permit;
   iv. Capital drainage program;
D. Report to City Council from time to time on the appropriateness and effectiveness of the credits and incentives program; and
E. Make an annual report to City Council.

WRPP-AC Membership

The WRPP-AC currently is composed of the following nine committee members: David Hirschman (Chair), Meg Byerly Williams (Secretary), Brian Becker, Morgan Butler, Leslie Middleton, Alyson Sappington (TJSWCD), Trey Steigman, Rebecca Quinn, and Chuck Ward. Members of City staff who regularly attend and contribute to WRPP-AC meetings include Dan Sweet (Stormwater Utility Administrator), Lauren Hildebrand (Utilities Director), Dan Frisbee (Stormwater Program Coordinator), and Bart Pfautz (Stormwater Technician).

Summary of Year 1 WRPP-AC Activities

At the first WRPP-AC meeting on January 16, 2014, the committee adopted bylaws and selected the chair and secretary. The bylaws restate the WRPP-AC’s charge, member terms, and meeting attendance expectations. The Council resolution and WRPP-AC bylaws require the committee to meet three times a year. However, committee members decided to meet four times during 2014 to enhance understanding of the program’s objectives and administration during the rollout phase. Subsequent meetings were held on March 11, July 17, and October 7.
The WRPP-AC’s focus during the first year was to become familiar with the WRPP and its staff, the goals and expectations for the stormwater utility, and the implementation of the credit and incentives programs. To do this, committee members requested an information session from City staff to better understand WRPP program details and explore topics that committee members submitted in advance. The information session was held on February 20, and committee members found the meeting very helpful.

Other meetings included specific presentations. Nicola McGoff from the Thomas Jefferson Soil and Water Conservation District gave a helpful presentation on the Charlottesville Conservation Assistance Program (CCAP) program, and David Hirschman presented an insightful explanation of a landowner’s “real-life” experience applying to CCAP and attempting to receive stormwater utility fee credits for a retrofit project on church property.

Each meeting included a detailed update from Utility Administrator Dan Sweet on activities proceeding and following the Stormwater Utility Fee rollout. During these discussions, committee members provided input and suggestions for the WRPP and utility fee. Additionally, committee members reviewed a draft stormwater utility fee insert that was mailed with City tax bills and provided feedback on stormwater utility overview documents, including the Stormwater Utility Fee Credit Manual.

Although committee members represent a wide variety of stakeholders, the WRPP-AC recommends that City Council ensure that at least one member of the committee has private business experience to offer that perspective as the WRPP-AC reviews program and funding needs in upcoming years.

Section 2. Periodic Assessment of WRPP Priorities and Funding Needs

WRPP Funding Summary

The first Stormwater Utility Fee bill was sent in May 2014. Table 1 below summarizes revenues from this billing. See Appendix A for a detailed list of first billing cycle results.

| Table 1. Stormwater Utility Fee Fiscal Year 2014 B: First Billing Cycle Billing & Revenue (as of 10/2/2014 for period January 1, 2014 to June 30, 2014) |
|----------------------------------|----------------------------------|
| Total Billings                   | $950,110                        |
| (Original Estimate = $889,200)   | (Actual = +$60,910)             |
| Total Collections                | $939,415                        |
| (Original Estimate = $863,734)   | (Actual = +$75,681)             |
| Collection Rate                  | 98.9%                           |
| (Original Estimate = 97.1%)      | (Actual = +1.8%)                |
Periodic Assessment of Program Priorities and Funding Needs

The City has long been engaged in identifying, prioritizing, funding, and addressing stormwater needs. Proactive public outreach, education, and engagement contributed to the successful launch of the first billing cycle and the general perception of the program’s acceptance and support by the citizenry.

Fiscal Year 2014B/Fiscal Year 2015A was a transition year for the WRPP in terms of funding. The focus has been on administration, organization, on-going activities, and implementation of the Stormwater Utility Fee. General funds previously paid for the City’s stormwater activities and will continue to pay for ongoing maintenance and some stormwater activities during the transition to the dedicated Water Resources Protection Fund.

In Fiscal Year 2015, an important activity for the WRPP-AC will be to provide ongoing input regarding development of the Water Resources Master Plan. The Master Plan ultimately will provide a strategic guide for matching the WRPP’s goals and objectives with prioritization of drainage and water resources infrastructure projects. Until the Water Resources Master Plan is developed and adopted to establish these priorities and project funding needs, the WRPP-AC does not recommend revising the current rates and formula associated with the Stormwater Utility Fee.

Section 3. Program Implementation

The WRPP contains various program elements, and the WRPP-AC has been learning about these from staff and providing structured feedback. The elements addressed in this subsection include:

- **Water Quality Incentive Program**: Program established by the City and administered through the Thomas Jefferson Soil & Water Conservation District (TJSWCD), known as the Charlottesville Conservation Assistance Program (CCAP), to provide one-time incentive grants for construction of on-lot stormwater practices.
- **Stormwater Utility Fee Credit**: Fee credits (waivers) required by state law for property owners that own and maintain stormwater management facilities that provide permanent reductions in pollutants and/or stormwater runoff.
- **Pipe Rehabilitation & Other Project Implementation**: Work to-date through capital projects to replace or line city-owned clay and metal pipes or implement new stormwater practices as part of other CIP projects.
- **Public Education & Citizen Engagement**: WRPP efforts to educate, inform, and engage citizens in the program.
Water Quality Incentive Program

The WRPP’s Water Quality Incentive Program has attracted the attention of small property owners in Charlottesville and continues to gain attention as word spreads. CCAP is a component of the larger grant-funded Virginia Conservation Assistance Program (VCAP), administered locally by TJSWCD. CCAP funding is earmarked for Charlottesville residents only and leverages VCAP funding as available. This is a good deal for the City as the local funds are often supplemented from VCAP grant funds, although funding availability is expected to vary in the future.

Thus far, CCAP has received 17 applications from Charlottesville residents for the incentive program. Four were completed prior to CCAP funding being formalized and were therefore funded entirely through VCAP. CCAP funding paid or allocated to Charlottesville projects to date totals $19,316. Additionally, VCAP contributed $9,671 to Charlottesville practices. Since January, TJSWCD has allocated $42,240 to Charlottesville for CCAP practice installation, leaving a current balance of $22,924. CCAP practices (completed, approved, and/or applied) are summarized in Table 2. The Stormwater Utility has provided $16,000 in funding for FY 2014B and $32,000 for FY 2015 in accordance with the Utility’s multi-year business plan.

Expanded outreach has the potential to greatly increase the number of citizens, businesses, and not-for-profit institutions interested in installing conservation practices under CCAP. One WRPP-AC proposal is to post signage on completed practices to attract attention in the community.

Looking forward, the trend seems to indicate that demand for CCAP funded practices will continue to expand. Several current CCAP applicants have plans for additional practices on their properties and intend to submit future CCAP applications. Initial interest from citizens tended to focus primarily on vegetative practices (converting managed turf to native plants or installing rain gardens). Recently, however, applicants are showing more interest in technical, structural practices (e.g., bioretention, rainwater harvesting).

The greatest challenge thus far has been citizens’ requests for more technical assistance than limited TJSWCD staff resources allow. Also, citizens tend to call CCAP to try to get assistance with larger or more complex neighborhood drainage issues, which is beyond CCAP’s scope. The potential for increasing implementation of residential and business scale stormwater practices in Charlottesville is significant if additional and adequate technical resources are made available in future years.
### Table 2. Summary of CCAP & VCAP Funds Allocated to Charlottesville Property Owners

<table>
<thead>
<tr>
<th>Scheduled Installation</th>
<th>Practice Description</th>
<th>Area or Volume</th>
<th>VCAP Leveraged Funds</th>
<th>CCAP Funds</th>
<th>Residential (R) Commercial (C) Not-for-Profit (NFP) School (S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete</td>
<td>Turf Conversion to Natives</td>
<td>900 sq. ft.</td>
<td>$675</td>
<td>$0</td>
<td>S</td>
</tr>
<tr>
<td>Complete</td>
<td>Rain Garden</td>
<td>87 sq. ft.</td>
<td>$1,888</td>
<td>$0</td>
<td>R</td>
</tr>
<tr>
<td>Complete</td>
<td>Turf Conversion to Natives</td>
<td>7500 sq. ft.</td>
<td>$563</td>
<td>$0</td>
<td>S</td>
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<tr>
<td>Complete</td>
<td>Rain Water Harvesting</td>
<td>825 gallons</td>
<td>$1,650</td>
<td>$0</td>
<td>R</td>
</tr>
<tr>
<td>Complete</td>
<td>Turf Conversion to Natives</td>
<td>267 sq. ft.</td>
<td>$200</td>
<td>$0</td>
<td>R</td>
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<tr>
<td>Complete</td>
<td>Turf Conversion to Natives</td>
<td>226 sq. ft.</td>
<td>$28</td>
<td>$28</td>
<td>R</td>
</tr>
<tr>
<td>Fall 2014</td>
<td>Turf Conversion to Natives</td>
<td>600 sq. ft.</td>
<td>$450</td>
<td>$0</td>
<td>R</td>
</tr>
<tr>
<td>Fall 2014</td>
<td>Impervious Surface Removal</td>
<td>172 sq. ft.</td>
<td>$215</td>
<td>$215</td>
<td>R</td>
</tr>
<tr>
<td>Fall 2014</td>
<td>Rain Water Harvesting</td>
<td>1500 gallons</td>
<td>$1,500</td>
<td>$1,500</td>
<td>R</td>
</tr>
<tr>
<td>Fall 2014</td>
<td>Turf Conversion to Natives</td>
<td>1900 sq. ft.</td>
<td>$475</td>
<td>$0</td>
<td>R</td>
</tr>
<tr>
<td>Spring 2015</td>
<td>Bioretention basin</td>
<td>700 sq. ft.</td>
<td>$0</td>
<td>$9,546</td>
<td>NFP</td>
</tr>
<tr>
<td>Spring 2015</td>
<td>Turf Conversion to Natives</td>
<td>340 sq. ft.</td>
<td>$43</td>
<td>$43</td>
<td></td>
</tr>
<tr>
<td>Spring 2015</td>
<td>Rain Water Harvesting</td>
<td>965 gallons</td>
<td>$965</td>
<td>$965</td>
<td>R</td>
</tr>
<tr>
<td>Spring 2015</td>
<td>Rain Garden</td>
<td>208 sq. ft.</td>
<td>$1,000</td>
<td>$1,000</td>
<td>R</td>
</tr>
<tr>
<td>Spring 2015</td>
<td>Turf Conversion to Natives</td>
<td>150 sq. ft.</td>
<td>$19</td>
<td>$19</td>
<td>R</td>
</tr>
<tr>
<td>Spring 2015</td>
<td>Dry Swale</td>
<td>400 sq. ft.</td>
<td>$0</td>
<td>$5,000</td>
<td>R</td>
</tr>
<tr>
<td>Spring 2015</td>
<td>Grass Channel</td>
<td>600 sq. ft.</td>
<td>$0</td>
<td>$1,000</td>
<td>R</td>
</tr>
<tr>
<td><strong>TOTAL FUNDS TO CHARLOTTESVILLE PROPERTY OWNERS</strong></td>
<td><strong>$9,671</strong></td>
<td><strong>$19,316</strong></td>
<td><strong>$28,986</strong></td>
<td><strong>$28,986</strong></td>
<td><strong>$28,986</strong></td>
</tr>
</tbody>
</table>

**Stormwater Utility Fee Credit Policy**

As opposed to the one-time grant associated with the Incentive Program, the Utility Fee Credit is an ongoing partial reduction of the stormwater utility bill.

In 2014, the Stormwater Utility received seven credit applications, three of which were prepared by staff. Applications resulted in a total of $2,548.80 in credits applied to the utility’s second billing and a matching amount refunded against the first billing. For each credit application received and approved, Table 3 presents whether the practice was a condition of development (e.g., included in a proffer or a condition of a special use application).
permit) or voluntary, the property use, a best management practice (BMP) description, and the half-year credit amount awarded.

<table>
<thead>
<tr>
<th>Condition of Development or Voluntary</th>
<th>Property Use</th>
<th>BMP Description</th>
<th>Half-Year Credit Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary</td>
<td>Single residence</td>
<td>Permeable pavers</td>
<td>$64.80</td>
</tr>
<tr>
<td>Voluntary</td>
<td>Non-profit</td>
<td>Combination of bioretention, bioswales, and infiltration trenches</td>
<td>$93.60</td>
</tr>
<tr>
<td>Voluntary</td>
<td>City school</td>
<td>Bioretention area</td>
<td>$1,238.40</td>
</tr>
<tr>
<td>Voluntary</td>
<td>City school</td>
<td>Bioretention area</td>
<td>$14.40</td>
</tr>
<tr>
<td>Condition of Development</td>
<td>Commercial</td>
<td>Extended detention pond</td>
<td>$849.60</td>
</tr>
<tr>
<td>Condition of Development</td>
<td>Church</td>
<td>Extended detention pond</td>
<td>$180.00</td>
</tr>
<tr>
<td>Condition of Development</td>
<td>Non-profit</td>
<td>Combination of rainwater harvesting, infiltration trenches, and bioretention</td>
<td>$108.00</td>
</tr>
<tr>
<td><strong>Total Half-Year Credit Amount</strong></td>
<td></td>
<td></td>
<td><strong>$2,548.80</strong></td>
</tr>
</tbody>
</table>

Applications for Stormwater Utility Fee Credits have been minimal. As noted above, only seven credit program applications have been received to-date. Additionally, the City sent a letter to 195 owners of BMPs that pre-date establishment of the stormwater utility (and thus eligible for a credit) informing them of the credit program, but received no new applications in response.

By state law, all stormwater utilities adopted in Virginia must include a credit program. However, the WRPP-AC has observed that in Charlottesville, as well as other communities with a stormwater utility in the state, the utility fee is not at a rate that is high enough to provide a strong incentive for property owners to install stormwater BMPs on their properties. After all, these practices do have up-front costs, and the savings per billing cycle from a credit may be low as a result of the fee itself being fairly modest. This can result in a long pay-back period. Also, the credit program application process is quite complex, and usually requires the assistance of a stormwater professional to navigate.

The WRPP-AC believes that, at the current stormwater utility fee rate, the credit program might be better marketed as a stewardship opportunity. With little financial incentive to
apply for the credit program, some property owners are more likely to consider implementing BMPs or improving their properties because it is the “right thing to do” for the City’s water resources and environment. To support this approach, the WRPP-AC recommends the creation of an award program that would offer recognition signs, for both the credit and incentives programs, that can be displayed by BMP implementers. An award program may require an amendment to the existing credit program.

Pipe Rehabilitation and Other Project Implementation

All thirteen miles of clay and metal stormwater pipes located in the City right of way are scheduled to be evaluated and rehabilitated over a ten-year period. Work through August of 2014 has been paid for out of the pre-utility capital budget.

In addition, several small WRPP and Stormwater Utility-related projects are complete, underway, or being evaluated:

- Restoration of a failed bioretention facility at Smith Aquatic Center;
- Revamping of a non-functioning facility at Forest Hill Park;
- Addition of a linear dry swale as part of a streetscape project on Cherry Avenue between 6th and 7 1/2th Streets, a project estimated to reduce approximately 1/3rd of a pound of phosphorous at a cost of $40,000;
- Inclusion of approximately 1,500 square feet of permeable asphalt pavement in the site renovation for the City’s Human Services Building, a project that would remove 2/10ths of a pound of phosphorous at a cost of $20,000;
- A study of the condition of and restoration opportunities for Moores Creek; and
- Removal of a low-water crossing at Quarry Park.

Design and administrative funding for these projects comes from a blend of Environmental Division and the Stormwater Utility operations funds. Stormwater Utility funds will likely finance construction of all projects listed above except for the Quarry Park and Smith Aquatic Center projects.

Public Education & Citizen Engagement

The WRPP has engaged the citizens of Charlottesville with a number of products and public education efforts. WRPP staff created the program’s homepage (http://www.charlottesville.org/Index.aspx?page=2308); published several brochures and handouts to explain the Stormwater Utility, Stormwater Utility Fee Credit Policy, and Water Quality Incentive Program (CCAP); mailed educational inserts with the first stormwater utility fee bills in May 2014; and shared the impervious surface layer used to calculate the stormwater fee on the City’s WebGIS (http://gisweb.charlottesville.org/GISViewer/).

Additionally, the City has conducted several years of proactive public outreach, including open houses, presentations, and a mass mailing in past years. In 2014, Stormwater Utility staff gave presentations for neighborhood association leadership, the Neighborhood Development Services (NDS) developers’ breakfast, and the Chesapeake Bay
Foundation’s fall VoiCeS class (also in 2013). Further, the Stormwater Utility staffed educational booths at the EcoFair and on Government Services Day and placed informative posters in City Hall for several months following the first utility fee billing cycle. To further support public engagement and education, the WRPP-AC recommends the development of a PowerPoint presentation that committee members can present to neighborhood associations, civic groups, churches, and business organizations, among others.

Section 4. Looking Forward

Potential WRPP-AC activities for 2015 will be discussed and prioritized at the first meeting in 2015. The following preliminary ideas were generated during 2014 meetings:

- Water Resources Master Plan development;
- Sponsor an open house for businesses and nonprofits;
- Develop a PowerPoint presentation for neighborhood associations, church, and civic groups so that WRPP-AC members can act more effectively as liaisons to the broader community;
- Offer a (bike and/or bus) tour of notable stormwater BMPs, as well as stormwater problem areas;
- Ask Council to designate a WRPP-AC representative to participate on other relevant City committees;
- Hold a joint meeting with Albemarle County’s newly-formed Water Resources Committee; and
- Work with staff on an awards and signage program for property owners that implement BMPs.

The members of the WRPP-AC would like to express their gratitude to the City’s stormwater staff for their diligent work to launch the WRPP and Stormwater Utility programs. The staff has taken pains to inform the WRPP-AC and work with us to elevate our understanding of stormwater and the programs in place to address it. We look forward to continuing our work with staff to improve the program in the coming year now that the initial rollout is complete and we can begin to shift our focus more to implementation.
APPENDIX A: Results from First Stormwater Utility Billing Cycle

- **Revenue (as of bill due date)**
  - Billed $950,110 (Plan = $889,200)
  - Collected $939,415 (Plan = $863,734)
  - Collection Rate 98.9% (Plan = 97.1%)

- **Customer Service Calls**
  - **Call Volume**
    - Treasurer’s Office logged ~175 calls
    - Stormwater Utility Administrator took ~160 calls
    - Therefore received calls from +/- 2% of bill recipients
  - **Major Customer Service Call Themes**
    - Drainage Issues
    - Gravel, pavers, decks, bricks and similar surface considered impervious
    - Fee considered a financial hardship
    - Stormwater Utility Fee credit program
    - Runoff characteristics of the property and/or impervious areas on the property
    - ~1/3 requested review of impervious areas on property included in the bill
  - **Customer Service Calls by neighborhood**
    - Highest number of calls from Belmont followed by Barracks/Rugby and Fry Springs.
    - 10th and Page and Rose Hill had the least number of calls. Johnson Village, Locust Grove, and the Meadows had the second least number of calls.

- **Petitions for Adjustment**
  - 52 Total
  - 17 Denied
  - 3 Withdrawn
  - 32 Approved (most were due to parcel issues, data error, or better applicant data)

- **Refunds**
  - 26 refunds were issued
    - Largest refund was $10,936.80 and was due to property owned by another entity being included in error. This was subsequently billed to the correct owner.
    - Remaining refunds ranged from $7.20 to $57.60 for a total of $338.40

- **Credits**
  - 7 applications received and approved
    - 1 commercial property
    - 1 residential property
- 2 City Schools properties
- 1 church
- 2 non-profit organizations
- Total credits awarded for the second billing cycle = $2,548.80
- Applicants refunded the credit amount for the first billing
Charlottesville Water Resources Protection Program Advisory Committee

Meeting #5: Meeting Notes
Date: January 23, 2015, 3:00 p.m. to 5:00 p.m.
Location: City Space, 100 5th Street NE, Charlottesville, VA

Attendees:
Advisory Committee Members: Morgan Butler, Dave Hirschman, Leslie Middleton, Rebecca Quinn, Alyson Sappington, Trey Steigman, Meg Byerly Williams

City Staff: Dan Sweet, Stormwater Utility Administrator; Dan Frisbee, Water Resources Specialist; Lauren Hildebrand, Director of Utilities; Bart Pfautz, Stormwater Technician

Welcome & Introductions

Chair Dave Hirschman welcomed committee members to the first WRPP-AC meeting of 2015 and thanked everyone for their efforts on the 2014 WRPP-AC End-Of-Year Report to City Council.

Status of End-Of-Year Report from 2014

Lauren Hildebrand stated that the End-Of-Year (EOY) Report was sent to the City Manager and is on the February 2nd City Council Meeting Agenda as a “report only” with no verbal presentation. The report is provided to City Council at this meeting for consideration and to allow public input, but no action is required. Chair Hirschman noted that the stormwater utility and WRPP-AC can use the EOY Report for communication efforts. Rebecca Quinn asked whether staff would post the EOY Report on the City’s WRPP website, and Dan Sweet indicated that the report would be posted.

Staff Briefing/Presentation on TMDL Action Plan & Baseline Data

Dan Frisbee then explained the City’s process steps for Chesapeake Bay TMDL baseline data generation. First, staff identified the City’s land cover (designated as impervious, pervious, or forest) and City-owned systems that discharge to waterways, as of July 1, 2009. During this process, staff determined which land areas within the City municipal boundary drain through the City’s MS4 system, identified City-owned properties and excluding those areas owned or operated by other MS4s, including VDOT, UVA, Albemarle County. Areas holding an industrial permit area were also excluded. The result of this exercise is the MS4 regulated lands within the City’s municipal boundary. The pollution reductions required for MS4 compliance with the Chesapeake Bay TMDL Special Permit Condition are calculated based on only these regulated acres. Next, the City determined the total phosphorous (P), Nitrogen (N), and total suspended solids (TSS) coming from regulated impervious and pervious areas. Staff then determined the required pollution of concern reductions per the City’s MS4 permit.
Mr. Frisbee then presented the City’s preliminary TMDL baseline data generation results. He presented estimates for the City’s land cover and regulated MS4 area, as well as projected pollution loads and reduction requirements based on these estimates. He noted that pollution reductions are staggered over time, requiring a five percent reduction by 2018, another 35 percent by 2023, and another 60 percent by 2028, resulting in 100 percent compliance by 2028. He then stated that if loads, reductions, and/or regulations change by 2028, requirements likely would become more stringent.

Mr. Frisbee noted that the City has a mix of approaches and opportunities available to meet these requirements and that the City may count activities since July 1, 2009 toward these required reductions. Because of past activities, the City already accomplished an estimated 11 percent attainment for phosphorus reductions, an estimated 10 percent attainment for nitrogen reductions, and estimated 10 percent attainment for TTS reductions. Mr. Frisbee then stated that the City will complete its Chesapeake Bay TMDL Action Plan by June 30, 2015 and must submit the Action Plan to the Virginia Department of Environmental Quality (DEQ) with the City’s MS4 Annual Report by October 1, 2015. He noted that the Action Plan will document progress and propose a handful of new projects and that the City must submit a draft Phase II Action Plan to DEQ by April 2018. The City’s upcoming Water Resources Master Plan will inform the Phase II Action Plan.

When asked whether the City received any comments for the 2014 annual report to DEQ last October, Mr. Frisbee responded that DEQ sent no comments, a typical response when no problems exist. Chair Hirschman then asked about unregulated versus regulated land, wondering whether leaving certain unregulated land in the City’s MS4 calculations would be beneficial. Mr. Sweet responded that carving out the unregulated areas eliminates 30 pounds of phosphorous, with a potential savings to the City of $3 Million based on a cost of $100,000 to treat a pound of phosphorus. Mr. Sweet noted that it would have been simpler for the City to leave unregulated areas in its calculations rather than carving them out and mentioned that the data generation process requires revisions before it is complete. He stated that there is no disincentive to carving out unregulated lands now and that this is not irreversible. If the City places BMPs on unregulated lands in the future, it will have to account for baseline reductions but still claim pollutant of concern reductions for these practices.

Following this discussion, Mr. Sweet presented results from the stormwater utility’s second billing cycle. He reported that the utility billed $963,147 in fees and collected $940,505, a 97.4 percent collection rate. The stormwater utility received eight petitions for adjustment, approved six of these petitions, and issued four refunds totaling $135.58. During the second billing cycle, stormwater utility staff answered approximately 20 customer service calls and received no Stormwater Utility Fee Credit applications. Based on these results, Mr. Sweet reported that Charlottesville residents seem to have accepted the stormwater utility fee.

Next, Mr. Sweet presented information about the upcoming Water Resources Master Plan process. He reminded committee members of the WRPP’s goal to protect and improve the City’s valuable natural and man-made resources by protecting public health and safety, minimizing the impacts of stormwater runoff, and creating sustainable aquatic habitats. In particular, the WRPP has four main “drivers”: (1)
rehabilitating the City’s stormwater pipe system, (2) achieving regulatory compliance, (3) addressing drainage and flooding issues, and (4) promoting stewardship. Mr. Sweet stated that the WRPP as approved by Council, includes the development of a Water Resources Master Plan that meets TMDL goals and integrates water quality improvements with drainage system improvement projects. He reported that the master plan will include two capital improvement plans (CIPs). The first CIP will designate an estimated 15 to 30 projects located throughout the City to accomplish 35-percent pollutant of concern reductions as required for Chesapeake Bay TMDL special permit condition compliance. The second CIP will prioritize two or three major capital drainage improvement projects for the City to complete from its current backlog of 69 drainage projects.

Mr. Sweet stated that the projects chosen to accomplish 35-percent Chesapeake Bay TMDL special permit compliance will cover the compliance period from FY2019-FY2023 and that the Stormwater Utility Multi-Year Business Plan covers FY2014-FY2018. He said that this CIP will allow for continued implementation progress ($800,000 in construction funds in 2018) and will inform the rate study and willingness-to-pay dialogue for next five-year business plan. Further, this CIP sets the stage for understanding implementation opportunities, as well as constraints and cost effectiveness for 60-percent compliance in FY2024-2028.

To designate the 15 to 30 projects for this CIP, Mr. Sweet stated that the master planning process will identify a group of potential projects, perform a project selection process, and then prioritize and rank the selected projects. Mr. Sweet stated that staff developed this process to reduce subjectivity and because it will be defensible, reproducible, explainable, flexible, and will support weighting. Mr. Sweet explained that staff will differentiate projects using potential prioritization schema or factors, including:

- Cost effectiveness;
- Pollutant reduction;
- Community benefit;
- Access and constructability;
- Benefit to other three WRPP drivers;
- Potential for additional funding sources (non-stormwater utility monies);
- Benefit to other City initiatives (2025 Council Vision, Strategic Investment Area, Green Infrastructure Plan, Streets That Work, etc.);
- Geographic distribution of projects throughout the City’s jurisdictional boundary; and
- Timing with other City or private projects.

Mr. Sweet stated that many project strategies exist for reducing TMDL nutrients, including stream restoration, outfall stabilization, open space preservation, BMP retrofits (new and existing), wastewater offsets, possible street sweeping, possible gray water strategies, redevelopment, and NPS offsets. In addition he presented several possible TMDL project types, noting that it is difficult to choose among these project types without a methodology. Potential projects types include:

- Expanding a required project to include voluntary measures;
• Voluntary Retrofit of existing stormwater management facility;
• Voluntary retrofits in the built environment;
• Nonstructural projects;
• Land purchase and preservation;
• Stream restoration and outfall stabilization;
• Regenerative Stormwater Conveyance;
• Sheet flow to open space and/or a vegetated filter;
• Soil amendments;
• Permeable pavement;
• Bioretention;
• Dry swales;
• Filtering practice;
• Grass channels;
• Rooftop disconnection;
• Rainwater harvesting; and
• Any eligible practice integrated into a City drainage improvement project.

Mr. Sweet explained that the selection process also would consider different potential land scenarios and locations, including improved City rights-of-way, City-owned land (excluding parkland and rights-of-way), private land, unimproved City rights-of-way (such as “paper streets” or City-owned alleys that are not maintained), and two or more private and/or public parcels (involving multiple landowners for stream restoration, swale projects, etc.). Mr. Sweet noted that the master planning process will work to find the appropriate mix of projects given all of these factors. He also mentioned a target “average price per pound” as an additional consideration. He noted that the selection process will include limited field investigation and assessments, no modeling, and no GIS enhancements because these technologies are expensive and unnecessary to select 15 to 30 projects. He stated that the deliverable will be a ranked list of capital pollutant reduction projects with detailed conceptual plans and good estimates of probable cost.

Mr. Sweet then discussed the City’s backlog of 69 previously identified drainage improvement projects. He reported that 13 come from a 1993 Citywide Drainage Program Memorandum and 50 derive from a 2008 PWD compiled list representing (1) a 2007 list of Public Works Drainage Problems, (2) a 1985 Planning Commission list, and (3) a list of 1982 Public Works Drainage Problems. Finally, six of these 69 projects have been identified since the stormwater utility’s launch. Mr. Sweet then stated that there are $1.2 Million in construction funds (for projects greater than $100,000 in cost) split between FY17 and FY18 in the utility’s multi-year business plan, and this will fund only a few projects. This includes projects such as replacing or upsizing culverts.

Rebecca Quinn then asked about the size of these projects. Mr. Sweet answered that most are large projects (≥ $100,000 in cost) but a few are minor (< $100,000 in cost). Ms. Quinn then asked whether these projects can address private property with drainage problems caused by water flowing from the
street, and Mr. Sweet responded that, other than the City’s Neighborhood Drainage Program, which is limited in scope, there is no City program to address these issues. He said that the stormwater utility has no funding to address these problems. Ms. Quinn then asked whether it would be possible to address some of these private property issues while implementing projects to reduce pollutant loads. Mr. Sweet responded that the project selection process will rank projects based on considerations like this.

Mr. Sweet then presented the 1993 Citywide Drainage Program criteria for projects, which included legal liability, public health and safety, structural damage, neighborhood and off-site impact, erosion, prevention, and cost-benefits. He then presented a list of potential additional criteria that may inform the current project selection process, including:

- Potential negative or positive effects upstream and downstream from a project;
- Benefit to the other three WRPP drivers, prioritizing the compliance driver;
- Potential for additional funding sources (non-stormwater utility monies);
- Benefit to other City initiatives (e.g., 2025 Council Vision, Strategic Investment Area, Green Infrastructure Plan, Complete Streets, etc.); and
- Eligibility for the City’s Neighborhood Drainage Program.

Mr. Sweet then restated that major capital drainage projects cost $100,000 or more and minor capital drainage projects cost less than $100,000. He reported that the master plan process will produce a conceptual drainage improvement approach and develop planning-level cost estimates for all 69 projects. He stated that the project selection process will then divide the 69 backlogged projects into major and minor capital projects and prioritize and rank the projects within these two categories. For major capital projects, the master plan process will develop detailed concept plans and cost estimates for existing and anticipated funding through 2023.

Mr. Sweet stated that staff would avoid past mistakes in water resources based planning in other communities by not recycling existing studies; including volumes on existing conditions; spending a lot of money on modeling and assessment; completing an underdeveloped attempt at project identification, prioritization, and planning level cost estimates; securing funding in a changing regulatory, technical, political, and social climate while on the ground conditions change; or shelving the completed master plan for months or years after which its projects are no longer relevant.

To meet the City’s needs, Mr. Sweet stated that the master plan will rely on a Decision Support System approach (DSS), computerized information systems that support decision-making activities by gathering, analyzing, and presenting data from a wide range of sources to help users make decisions. Ms. Quinn asked whether other municipalities have used DSS before, and Mr. Sweet responded that the Cities of Lynchburg and Richmond, Virginia and Montgomery County, Maryland are using DSS for similar projects. Mr. Sweet noted that a DSS often is used to solve relatively unstructured, underspecified problems for upper-level managers and that it emphasizes flexibility and adaptability to accommodate changes in the environment and the user’s decision making approach. In particular, the water resources master plan will utilize model-driven DSS, which are complex systems that help managers analyze decisions or
choose between different options, as well as some knowledge-driven DSS, which are used to communicate and convey information from the database.

Mr. Sweet stated that a stormwater DSS approach is necessary because program needs, available funding, and the stormwater utility rate are fluid and interrelated, requiring a decision system that takes these changing dynamics into account. With TMDL compliance projects, both funding and regulatory targets can change at any given time. A stormwater DSS would create a “living” plan that allows for this fluidity. The plan could take into account planned implementation strategies, estimated implementation costs, and actual project costs, allowing the plan to shift when projects cost more than originally anticipated. In order to do this, the DSS will have to normalize the data and account for inflation.

Mr. Sweet then stated that the stormwater DSS will be used to track planned pollution reduction attainment versus actual attainment over the next five-year period. Additionally, the DSS will track available revenue versus planned costs and actual costs over the same time period. In this way, the dynamic DSS will allow staff to anticipate problems and make corrections as needed. Mr. Sweet reiterated that DSS is a powerful tool to model and graphically communicate hypothetical pros and cons of rate increases and inform the public “willingness to pay” discussion. It creates a “living” database that informs planned capital projects over time with real capital project implementation and post occupancy costs (maintenance) versus available funding and projected need to increase funding. Finally, it allows for scenario iteration on the potential mix of projects to determine what can be accomplished in the specific drivers with potential rate increases.

Mr. Sweet then presented some of the functionality the stormwater DSS will have including:

- Integration and comparison between implemented capital projects, planned capital projects, and hypothetical “what if” capital project scenarios for both CIPs;
- A “learning mechanism” to integrate normalized costs from implemented projects into the planning level cost databases used in capital project planning;
- A “learning mechanism” to integrate post construction pollutant removal calculations versus planned pollutant removal calculations;
- Ability to account for pollutant reductions from multiple sources;
- A chronological tracking and reporting mechanism that compares goal, plan, and progress;
- A stormwater utility rate projection mechanism;
- Ability to add, subtract, modify, and evaluate individual capital projects within the two CIPs with corresponding instantaneous updates;
- Information retrieval and presentation graphics for individual and groups of capital projects included in the two CIPs;
- Flexibility and adaptability to accommodate changing regulations, policies, community needs and priorities, and funding sources; and
- A tracking mechanism for revenues spent and work completed for the stormwater pipe system rehabilitation and water resources stewardship WRPP drivers to inform budget availability and implications.
Ms. Quinn asked whether there will be a parallel maintenance budget for some of these projects. Mr. Sweet responded that the master plan DSS will have a pre-construction, construction, and post-construction cost database for the TMDL projects and the drainage improvement projects.

Mr. Sweet noted that the water resources DSS will help refine priorities given the projects selected, the utility rate, stakeholder and public input, and citizens’ willingness to pay for these projects. He then stated that the DSS will help the WRPP-AC conduct periodic assessments of program priorities and funding needs, including recommendations for stormwater utility fee adjustments. Further, the DSS will help the committee monitor (1) WRPP implementation, including the master plan process; (2) infrastructure rehabilitation, repair, and maintenance; (3) pollutant reduction progress; and (4) the capital drainage program.

Mr. Sweet concluded his presentation by describing the internal staff committees that will contribute to the master planning process and implementation. These include a Rehab Committee with Utilities and Service staff; a Drainage and Flooding Committee with Utilities, Service, and NDS staff; a TMDL Reductions Committee with Utilities, Environment, NDS, and Parks staff; a Stewardship Committee with Utilities, Environment, and Parks staff; and a Policy/Rate Committee with Utilities, Environment, Legal, and Finance staff.

Mr. Sweet then asked for questions. Leslie Middleton asked whether the stormwater DSS would be included in the City’s Water Resources Master Plan RFP. Mr. Sweet responded that the RFP, which will be issued a week after this meeting, will include the two CIP plans, as well as the DSS. Alyson Sappington asked whether the utility fund will pay for the DSS, and Mr. Sweet indicated that it would. Ms. Middleton asked where the RFP will be posted, and Mr. Sweet stated that it will be posted on the City’s procurement website on Tuesday or Wednesday of next week, after which it will be public information. He stated that proposals will be due March 10th. Chair Hirschman asked whether the City will select a contract by the WRPP-AC’s next meeting on April 21st, and Mr. Sweet responded that this is possible but that he anticipates the City only will have concluded short-list interviews by that date, depending on the number of proposals submitted. Chair Hirschman then asked what the WRPP-AC’s role is in the RFP process. Mr. Sweet responded that staff will give the WRPP-AC regular updates first on the RFP and then on the master plan process, which will last 18 months, culminating in the two CIPs and DSS in October 2016. Mr. Sweet said the chosen consultant may attend the December WRPP-AC meeting to present on the master plan process, offering members an opportunity to provide feedback at that point.

Morgan Butler then asked how the City will make decisions about projects prior to the master plan’s completion. Mr. Sweet answered that the stormwater utility has no funding for drainage improvements until 2017 or for TMDL improvement projects until 2018. He noted that the utility can use some revenue from its operational funding, as well as some grant funding, to finance one or two new projects per year for the next two years. Mr. Sweet stated that the capital program is focused currently on rehabilitation projects, which are funded by a combination of fee income and bonds. Mr. Frisbee said that, for the next two years, staff will use their judgment to select water quality improvement projects that make sense
and are good candidates for grant support. Mr. Sweet is confident in this process because the City is already at approximately 10 percent compliance for pollutant reductions.

Ms. Quinn and Mr. Butler asked where utility rate fees collected in the utility’s first two billing cycles in FY2014 has or will be spent, and Mr. Sweet stated that this revenue, along with money from bond sales, was used in 2014 to fund three pieces of the capital budget: (1) half of the master plan costs, (2) $50,000 for an enhanced neighborhood drainage program, and (3) rehabilitation projects. Additionally, the stormwater utility’s operational budget has some money for professional services and the credits program. The utility is using excess funds from this budget to finance design projects and related activities. Mr. Sweet then stated that the FY2015 capital budget is the same as it was in FY2014 with the money for the rehab program doubled, and that the utility spent a little more than $1 million on rehab projects in calendar year 2014.

Ms. Quinn then stated that, in order to identify upcoming funding shortfalls and make recommendations regarding stormwater utility fee rates, the WRPP-AC requires information about where fee income is spent, as well as funding needs to meet required pollutant reductions. Mr. Sweet responded that this discussion will be most informative and useful in FY2016 but offered to present the utility’s five-year business plan in detail and the FY2014 actuals at the WRPP-AC’s next meeting in April. Mr. Butler stated that he just needs to be able to answer rate payers’ questions about how the stormwater utility is spending fee income right now, and Mr. Sweet stated that, currently, rate payers are receiving administration of the WRPP, which includes meeting all regulatory requirements and the master planning process, as well as enhanced pipe rehabilitation. Mr. Sweet noted that the online construction report contains information about all ongoing pipe rehabilitation projects. Citizens can access this report to identify any pipe rehab projects in their neighborhood that have occurred within the past two months.

Mr. Sweet stated that the pipe rehab program aims to line, repair, or replace 13 miles of metal and clay pipe primarily located within the City’s right-of-way and considered public pipes. When possible, the City has funded a few private projects that are too large for the Neighborhood Drainage Program, but funding for these projects is limited. The City can fund around one per year unless they find more funding. Mr. Sweet noted that there is a huge need for this and that the mix of public and private pipes is a real challenge. If private property owners allow a structural BMP on their property and give the City a permanent easement, this can help with TMDL compliance. Mr. Sweet noted that the stormwater utility can start planning for TMDL projects in July 2016.

Ms. Middleton asked whether pollution reductions come from pipe lining. Mr. Sweet responded that this is possible only if the utility has a methodology for quantifying sediment removed from those pipes, which is practically impossible. Mr. Sweet clarified that although pipe rehabilitation does not contribute to pollution reductions, it is necessary for compliance with the City’s MS4 permit requirements, as well as proper infrastructure and asset management.

**Committee Discussion of “Looking Forward” Items from 2014 EOY Report**
Chair Hirschman then directed the conversation to a discussion of possible WRPP-AC activities for FY2015. He brought up the possibility of WRPP-AC members giving presentations to neighborhood associations and other community groups and suggested that staff provide a few presentation slides explaining pipe rehabilitation and its benefits to the public. Ms. Quinn likes this idea but added that presenters must be prepared to answer questions about City water on private property.

Chair Hirschman then directed members to the list of “looking forward” items from the 2014 EOY Report, noting that the group already discussed item (1) Water Resources Master Plan development. He suggested that the members prioritize these activities, perhaps selecting two on which to focus efforts. Referring to item (3) on the list, Ms. Quinn offered to create a draft presentation for neighborhood associations, church, and civic groups, and Ms. Middleton responded that Mr. Butler and she already created a presentation that they delivered to a church group. Ms. Quinn offered to review this presentation and distribute to the WRPP-AC for further review and use. Ms. Quinn suggested that providing this type of basic stormwater and WRPP education for the community now will help staff begin a conversation about stormwater utility rate increases in upcoming years. Chair Hirschman noted that Laurel Woodworth gave a similar presentation about the stormwater utility to the Vinegar Hill Toastmasters Club and suggested adding those slides to a master set as well. Chair Hirschman then asked whether WRPP-AC members would commit to doing one or two presentations over the course of the year. Ms. Quinn suggested that members first compile the slides and then talk about presentation logistics (how many and for which community groups) at the next meeting. Ms. Sappington stated that the CCAP is engaged in incentives program outreach to neighborhood groups and would use the presentation for that. She also offered to contribute the CCAP’s incentive program slides to the master set.

Mr. Sweet asked Trey Steigman if he had any recommendations for business or real estate groups that might be interested in this presentation. Mr. Steigman responded, questioning this outreach effort when the stormwater utility is enjoying high compliance and few fee inquiries; he wondered whether this effort might stir up concerns. Ms. Quinn responded that this outreach is essential, perhaps not right now, but prior to the discussion of rate increases that might be necessary to meet TMDL and other goals. Acknowledging Mr. Steigman’s concerns, Ms. Middleton suggested that the WRPP-AC’s outreach efforts should first target churches and organizations that are amenable to “green” or sustainable development initiatives. Chair Hirschman then distinguished public outreach efforts focused on the utility from efforts focused on stormwater and the incentives program and suggested that the latter is not premature because some action on private property will take place. Ms. Quinn suggested the WRPP-AC could use the presentation right now to respond to interested parties as opposed to using it in a proactive outreach campaign but that, either way, it should be available. Mr. Steigman noted that the message should be consistent across the community from a single presentation. Members decided the presentation should be positive, explaining what the stormwater utility fee pays for, describing steps the community can take to deal with stormwater, and featuring case studies for the incentive and credit programs.
Ms. Sappington asked whether staff had received any more applications for the credit program. Mr. Sweet responded that they received only those listed in the 2014 EOY Report. Chair Hirschman assumes Sojourners will apply to the credit program.

Chair Hirschman then asked the members whether they thought the WRPP-AC should pursue any other “looking forward” items on the list. Ms. Sappington suggested focusing on item (7) an awards and signage program for property owners who implement BMPs because it is simple and not costly. Ms. Quinn asked about item (6) holding a joint meeting with Albemarle County’s new water resources committee, questioning its purpose. Ms. Middleton responded that at some point the City’s and County’s water resource programs will be linked, so the WRPP-AC should become familiar with the County’s program. Ms. Sappington and Ms. Quinn suggested that it is too early for this right now.

Ms. Quinn then asked about item (5) WRPP-AC member participation on other City committees, wondering about the benefit of this participation. Chair Hirschman mentioned that the green infrastructure plan place subcommittee might be appropriate for this. Mr. Sweet stated that all City committee meetings are open to the public but only members can actively participate. Ms. Quinn asked staff to tell the WRPP-AC if there’s a need for their participation at a particular committee meeting, especially if these committees begin to target stormwater utility fee revenues.

Chair Hirschman then discussed item (4) holding a bicycle or bus tour of notable stormwater BMPs and stormwater problem areas. He noted that the tour was suggested as a public outreach tool but that it may be too early for this for reasons already mentioned. Other members suggested a holding a tour to educate WRPP-AC members only. This tour would require less preparation and could include examples of neighborhood, minor, and major projects. Mr. Sweet said that a bicycle tour after the April WRPP-AC meeting could include a drainage project under construction, three failed BMPs at different stages of rehabilitation, Cherry Avenue streetscape improvements, and the Department of Social Services Building permeable asphalt project. Chair Hirschman offered to create a tour outline with Mr. Sweet and Mr. Frisbee and suggested the committee tour could be a precursor to a public tour.

Ms. Middleton returned the discussion to item (7) the awards and signage program and asked Ms. Sappington what this would entail. Ms. Sappington responded that it would require some funding. Chair Hirschman noted that the idea originated after citizens complained about receiving no credit for certain BMPs implemented prior to the stormwater utility’s inception. An awards and signage program would recognize these efforts. The awards program could consist of a physical sign for yard display or a website that lists award winners. Ms. Quinn noted that the program would require staff time to determine who receives the award. Chair Hirschman suggested that the WRPP-AC should administer the program and asked for volunteers for a subcommittee to begin developing an awards program. Ms. Sappington stated concerns about sign maintenance and suggested making the program as simple as possible. Mr. Sweet noted that generally homeowners want a fee credit, not a sign. He suggested that the award should be more substantial than a sign, such as a gift or one-time cash award. Mr. Butler responded that some citizens will appreciate a sign that recognizes their stewardship. Chair Hirschman then appointed Mr. Butler, Ms. Sappington, and Ms. Middleton to the award program subcommittee to develop this idea.
Ms. Quinn and Ms. Middleton both suggested that the WRPP-AC should coordinate the awards program timing with the committee’s outreach campaign.

**Committee Member Items**

Chair Hirschman then opened the meeting to topics any committee member would like to discuss. Ms. Quinn reminded members of the WRPP-AC member vacancy created when Chuck Ward’s term expired and noted that January 28th is the deadline for filling this vacancy, encouraging everyone to help identify someone to fill the vacancy. Ms. Quinn then discussed the City’s WRPP webpage, stating that this January 23rd WRPP-AC meeting was listed on the online calendar. She reminded staff that WRPP-AC members’ names and meeting notes should be listed on the webpage as well. Chair Hirschman asked Meg Byerly Williams to review past meeting notes to determine what else, if anything, should be listed regarding the WRPP-AC on the WRPP website.

Mr. Steigman then reminded members that several bills will be proposed in the General Assembly session that may affect the stormwater utility. Some involve religious group exemptions and another involves a stormwater utility waiver of charges for certain properties. Mr. Sweet responded that the religious group exemption was debated in committee yesterday, and the Virginia Municipal Stormwater Association (VMSA) is the stormwater utility’s legal advocacy group in this matter. The committee will vote on this bill on January 28th, which died in committee last year. The Assembly seems concerned about two things: (1) this would create a possible precedent for a similar exemption for the federal government and (2) a relevant court case is pending, and the Assembly generally avoids meddling in court cases. The religious exemption’s fiscal impact on the City would be $51,000 or 2.6 percent of total fee revenue. A similar exemption for federal property would eliminate another $15,000 of fee revenue.

Albemarle County proposed a bill for a stormwater utility fee exemption to waive their fee for two school sites within the City’s jurisdiction because they have demonstrated that the County’s MS4 actively covers these properties. State statute does not allow such fee waivers for properties titled to school boards. Mr. Sweet noted that seven of ten City schools owned by the City’s school board currently pay similar fees to Albemarle County, amounting to $40,000 annually. Mr. Sweet acknowledged that the bill’s passage could encourage the UVA Foundation to pursue a similar fee exemption but that this would require the foundation to demonstrate MS4 coverage of their City property, something it currently does not claim. Mr. Sweet stated that staff believes this bill likely will not pass. Chair Hirschman asked staff to provide the WRPP-AC with periodic email updates as they learn more about these bills.

Ms. Sappington then mentioned that a new practice, urban nutrient management, was added to the VCAP incentive program’s suite of ten practices and asked WRPP-AC to provide feedback as to whether the CCAP should adopt this practice as well. Members generally responded that this is a good idea.

Ms. Middleton asked staff to post WRPP-AC materials on the WRPP website, and requested that staff email their presentation slides to members after this meeting. She requested that staff send
presentation slides to members ahead of time in the future, stating that this information is public, even if preliminary, and that WRPP-AC members should have access to such information. Mr. Sweet responded that the information can be made public after the water resources master plan RFP is publicly advertised, sometime next week. Mr. Sweet said staff will consider this request but generally is protective of preliminary TMDL baseline data because this information has major implications for compliance obligations and future program costs. Mr. Sweet also stated that much of this information is not public because it is associated with a pending procurement and because the TMDL baseline numbers are not final. Ms. Byerly Williams asked for access to the presentation slides to help draft the meeting notes, and Mr. Sweet asked her to exclude the preliminary TMDL baseline numbers from the notes. Members continued to express concern that preliminary data is not publicly available with appropriate disclaimers, and Chair Hirschman stated that this topic requires further discussion at a later time to ensure transparency. Mr. Sweet noted that the numbers truly are not final until DEQ approves the City’s Phase I Action Plan, which may be 15 to 16 months away, and staff will not submit this action plan until October 2015. Chair Hirschman asked Ms. Byerly Williams to flag this topic for further discussion.

Chair Hirschman returned the discussion to the WRPP-AC vacancy and asked members to approach any of their contacts, especially from the non-profit community, who may be a good fit for the committee. Ms. Quinn noted that WRPP-AC membership also should represent all City neighborhoods. Ms. Middleton suggested approaching homeowners’ associations to recruit new members as well.

**Staff Items**

Chair Hirschman asked staff if they had any remaining items to discuss; they did not.

**Adjournment**

The meeting adjourned at approximately 5:03 p.m.
Charlottesville Water Resources Protection Program Advisory Committee

Meeting #6: Meeting Notes
Date: April 21, 2015, 3:00 p.m. to 5:00 p.m.
Location: City Space, 100 5th Street NE, Charlottesville, VA

Attendees:
Advisory Committee Members: Brian Becker, Morgan Butler, Dave Hirschman, Leslie Middleton, Rebecca Quinn, Alyson Sappington, Trey Steigman, Meg Byerly Williams

City Staff: Dan Sweet, Stormwater Utility Administrator; Lauren Hildebrand, Director of Utilities; Bart Pfautz, Stormwater Technician

Comments on Meeting Notes & Agenda

Chair Dave Hirschman welcomed committee members to the second WRPP-AC meeting of 2015 and asked members if they had any comments regarding the Committee’s meeting #4 notes and meeting #5 notes. Members voted to approve the meeting #4 notes with no changes. Morgan Butler requested that the meeting #5 notes be edited to reflect his correct name. Rebecca Quinn requested that Dan Sweet clarify his statement made in the second sentence in the last paragraph of page seven of the meeting #5 notes, and Mr. Sweet responded that we would edit the minutes to clarify both Dan Frisbee’s and his comments in that paragraph. Leslie Middleton stated that the last full paragraph on page five of the meeting #5 notes contained a reference to staff avoiding mistakes by not recycling existing studies. Ms. Middleton found this confusing and asked Mr. Sweet to edit the sentence to clarify its meaning. Mr. Sweet agreed to make this change as well. Following this discussion, members voted to approve the meeting #5 notes with amendments as proposed.

Ms. Quinn suggested that future meeting agendas should include an opportunity for public comment at the beginning of WRPP-AC meetings and asked whether City Council had provided feedback on the 2014 WRPP-AC End-Of-Year Report. Chair Dave Hirschman stated that Council members read it, thought it was interesting and contained good information, and seemed to appreciate it. Chair Hirshman announced that the short presentation on Sojourners’ bioretention construction was removed from the meeting #6 agenda and suggested a field trip between WRPP-AC meetings to observe private projects.

Staff Briefing

Mr. Sweet then briefed the WRPP-AC members on the Water Resources Master Plan procurement, the business plan and financing, project updates, and other items. Mr. Sweet stated that the Water Resources Master Plan procurement process had begun. Ms. Quinn asked whether the Decision Support System (DSS) was a prepackaged product, and Mr. Sweet responded that it wasn’t. He stated that there are a number of DSS components or tools available. Mr. Sweet stated that the City had received
responses from eight firms and had completed its initial evaluation of their proposals. Next, the City will enter discussions with two or three firms, select the number one firm, and enter contract discussions with the selected firm. Mr. Sweet hopes to be under contract with the selected firm by June 30, 2015. Members then discussed master plan costs, the applicant firms’ locations, and their sizes. Mr. Sweet stated that most of the applicant firms have fiscal business locations in Virginia, that they range in size from small to large, and that City staff will negotiate with the selected firm at the appropriate time to contain costs. He said that negotiations would ensure proper project scope to keep within the budget. Alyson Sappington asked who was serving on the review committee, and Mr. Sweet listed the members of the review committee, which including himself, Lauren Hildebrand, Marty Silman, the City Engineer, Dan Frisbee, and Kristel Riddervold. He said Kathryn McNanny is the committee’s chair but not an evaluator. Mr. Sweet said staff will discuss details of the master planning approach at the third WRPP-AC meeting in July 2015 and may bring the selected firm to the fourth meeting in October 2015.

Mr. Sweet then updated members on the business plan and financing. He stated that information about the City’s proposed, current, and archived budgets are available at the Office of Budget and Performance Management webpage. The Public Utility’s webpage contains the yearly rate reports. Finally, the city-wide (across all departments) Capital Improvement Plan GIS viewer has a GIS interface and shows where every active City capital dollar is being spent. He noted that this viewer includes the Stormwater Utility’s pipe rehabilitation program work, which is the utility’s current active capital work. Members responded that this information would not completely answer the questions in a recent letter to the editor that a Charlottesville citizen sent to the Daily Progress, which questions how the stormwater fee revenues have been spent. Dan Sweet explained that it would have shown where the utility’s capital budget is being spent. Mr. Butler stated that the letter’s author wasn’t interested in capital projects; he wanted to know why the City has a stormwater utility fee if the revenue wasn’t being spent. The author wasn’t aware of the recent transition from using general funds to using utility fee revenue to fund stormwater utility projects.

To address this, Mr. Sweet said it was important to understand the difference between programs funded through an enterprise fund versus a general fund. All city funds have an operational budget and a capital budget. Surplus operational funds from generally funded programs (through tax dollars) transfer to a city’s general fund at the end of the fiscal year. An enterprise fund contains revenue collected from fees charged for municipal services or goods. All of Charlottesville’s utilities, including the stormwater utility, are enterprise funds. At the end of the fiscal year, surplus operational funds from an enterprise fund go to the enterprise fund balance. Then, leftover stormwater utility operational money must be appropriated by City Council to be spent but must be allocated for stormwater utility purposes only according to State law. Eventually, the City will appropriate the previous years’ operational surplus to fund a stormwater need, such as an unanticipated problem, meeting new requirements, or flattening the stormwater utility rate. In contrast, the stormwater utility’s capital fund rolls over year after year, typically on a five-year planning cycle. Mr. Sweet stated that in FY2014 the stormwater utility collected more fee revenue than anticipated, generating more money than was allocated for expenses, so this surplus revenue also went to the utility’s fund balance and must be allocated for stormwater capital projects or expenses prior to spending. Mr. Becker asked how much surplus revenue and operational
funds was transferred to the fund balance at the end of FY2014. Lauren Hildebrand said that it was not a lot because the stormwater utility hasn’t been operating for very long.

Mr. Sweet noted that stormwater utility capital funds will be allocated when the master plan is issued and described details regarding the stormwater utility’s operational budget and capital budget. The operational budget includes staff salaries and benefits; fixed costs set by other City departments, such as phone service, IT, and vehicles; professional services; mailings and postage; debt service on bonds sold according to the FY2014 plan (City Council chose to pay, in part, for the water resources protection program via bond revenues); and a 60-day operating reserve that all fund centers, including the stormwater utility are required to maintain. The reserves transfer to the stormwater utility’s fund balance at the end of each fiscal year as described above. The stormwater utility’s capital budget for FY2014 included $225,000 for the master plan; $500,000 for pipe rehabilitation; and $50,000 for the neighborhood drainage program (funding for NDS when they run out of other funds and need it). Leftover FY2014 funding for pipe rehabilitation rolled over into the FY2015 capital budget, and stormwater utility fee revenue is now fully funding this program. The NDS funding also rolled over into the FY2015 capital budget. If NDS never uses this funding, the stormwater utility could eventually negotiate with NDS to have this funding reallocated for another drainage project.

Mr. Sweet then stated that in FY2014 the stormwater utility spent only 47 percent of its operating budget, explaining that the operating surplus primarily consisted of ~40 percent of the salary budget. He stated that this 53-percent operating surplus, the 60-day operating reserve, the planned surplus, and the extra revenue from stormwater utility fees all went to the stormwater utility’s fund balance at the end of FY2014 and explained that most of this surplus is due to City staff incorporating overlapping funds into the WRPP budgets to ensure the program’s survival if the City didn’t adopt a stormwater utility. Mr. Sweet then stated that the stormwater utility did not spend any of the capital plan budget because the utility had access to other money through stormwater environmental to pay for the programs. He stated that capital funds are budgeted for design projects starting in FY2016 and capital construction projects starting in FY2018. In the meantime, Mr. Sweet said the stormwater utility is finding creative ways to fund some projects, including through extra operational funds and by applying for grants.

Ms. Quinn stated that there still is a disconnect because the utility will not spend capital funds until FY2018. Mr. Sweet responded that in FY2014 the utility spent down pre-utility pipe rehabilitation funding, and on July 1, 2014, the beginning of FY2015, the utility started spending only stormwater utility capital dollars to fund pipe rehabilitation. Mr. Sweet estimates that the stormwater utility will spend ~$800,000 in FY2015 on pipe rehabilitation, which is very close to the budget target. Of the $940,000 collected in stormwater utility fees in FY2014, 53 percent funded the utility’s capital budget as planned; 14 percent funded operation of the program; 16 percent was allocated to the operational budget but not spent; 9 percent funded planned delinquencies, the 60-day reserve, the planned surplus, and debt service; and the remaining 8 percent of fee revenue consisted of unanticipated revenues.
Ms. Middleton asked when this information would be officially reported. Mr. Sweet responded that it will not be reported and is beyond the level of detail typically provided in publicly available documents or that is reported to any other City board or committee. Ms. Middleton stated that it is public information and the WRPP-AC is supposed to provide fiscal oversight of the stormwater utility, so she requested that these numbers be reflected in meeting notes and asked to see budget numbers prior to WRPP-AC meetings in the future. Mr. Sweet responded that staff is not inclined to set the precedent of providing such detailed budgetary information to the WRPP-AC, as staff believes this is beyond the level of detail typically provided to a City advisory committee. Ms. Quinn worried about the utility fee rate increase discussion, noting that the WRPP-AC needs access to detailed budget information to determine whether a rate increase is justified. Mr. Sweet stated that the WRPP-AC’s purpose is to ensure the stormwater utility follows its business plan, which he said is clearly the case. Members generally disagreed with this approach, stating that the WRPP-AC needs access to this information to oversee how stormwater utility fee revenue is collected and spent and to ensure the fees are reasonable when compared to the services the utility provides. Members then suggested having City budget staff come to the next WRPP-AC meeting to help determine what budgetary information stormwater utility staff should share with the WRPP-AC. Both staff and members also suggested that the WRPP-AC should research and clarify its charge with regard to stormwater utility financing, suggesting that it might be helpful to hear from City staff what level of budgetary detail is considered appropriate for public meeting notes.

Ms. Middleton stated that she doesn’t want WRPP-AC and City staff discussions about the stormwater utility budget to be adversarial, and Mr. Hirschman said it is normal for the new WRPP-AC to struggle as it decides its purpose and focus. Mr. Sweet replied that it is normal for a new group to “form, storm, and norm”, noting that the WRPP-AC is still “storming” as it determines its role. Ms. Quinn made the final point that the WRPP-AC requires enough information to determine if the WRPP is operating as intended.

Mr. Sweet then briefed members on the status of the draft five-percent TMDL special permit compliance action plan, which the stormwater utility must complete on June 30, 2015. The utility must submit the final draft of the plan with its annual report to DEQ on October 1, 2015. Mr. Sweet stated that the stormwater utility is working to understand new DEQ guidance that was released in March, noting that the guidance is difficult to understand. Based on this guidance, Mr. Sweet reported that the plan is set on land use and loading but contains a significant error in the reduction calculation. Staff notified DEQ and is waiting to hear back about how to resolve the error. He stated that staff currently is evaluating all the projects to determine which to include in the five-percent action plan, and is working to complete the draft by June 30th after releasing it for public input in early June.

Mr. Sweet then updated members on the status of several stormwater design projects that staff would like to include in five-percent action plan but which require repairs:

- The Venable School back parking lot bioretention area is not functioning as designed, but the City will soon have a completed design for this project and will construct it in early summer.
The BMP facility at the bottom of Forest Hill Park is not functioning. The City is near final review and acceptance of a design for this facility, which will be a little more expensive than other projects. The City will fund construction as monies are available, if this project is included in the five-percent action plan, the City has two to three years to complete the project.

The Old Lynchburg Road bioretention area is not functioning, but the City has identified the problem and has a good plan. NDS will fund repairs with the remaining construction budget. The stormwater utility will assume maintenance of this facility after it’s functioning.

Mr. Becker asked about biofilter projects, noting that maintenance of a fully functioning facility is often problematic after construction and wondering if a truly functional biofilter projects exist. Mr. Sweet responded that many functional biofilter projects exist, including the facility in front of Charlottesville High School’s (CHS) MLK performing arts center and Greenleaf Park. Members also asked about failed biofilters, wondering if they fail because of design, construction, or maintenance. Chair Hirschman responded that biofilter projects often do not have controls at these phases to ensure a success rate better than 50 percent. Mr. Sweet also noted that the City is already correcting course and that the CHS project process stopped temporarily because the design plans weren’t sufficient. Mr. Butler asked about the funding for these projects. Mr. Sweet responded that the CHS project is funded through grant money, City school funding, and old stormwater environmental money. He stated that the stormwater utility has paid for only the design and construction of the permeable paving at 909 E. Market and will fund design plans for the Venable School bioretention project and the construction at Forest Hill Park. Mr. Sweet stated that all projects must include maintenance plans now.

Committee Discussion of WRPP-AC’s role in WRPP Promotion, Education, Information, Etc.

Chair Hirschman then directed members to a discussion of the WRPP-AC’s role in facilitating the WRPP and Stormwater Utility’s agenda. Members began by discussing the recent letter to the editor (LTTE) published in the March 25, 2015 edition of the Daily Progress. The letter suggested that the City may be misusing stormwater utility fee revenues. Mr. Butler said that he saw the letter as an opportunity for the WRPP-AC to defend the stormwater utility against the author’s accusation but knew that the committee could not conduct committee business over email because of procedural due process issues. Prior to this meeting and with WRPP-AC knowledge and approval, Mr. Butler drafted a potential response letter for the WRPP-AC to sign and send to the Daily Progress. Trey Steigman cautioned against responding to the LTTE, noting that it is not the WRPP-AC’s role to have an exchange with a citizen in the press. Ms. Quinn stated that City Council hadn’t heard any other complaints, and members worried that a response letter may stir up the controversy again and suggested using Mr. Butler’s draft letter to respond to any new complaints after the June 5th billing cycle.

Chair Hirschman stated that the WRPP-AC should refrain from conducting business over email between meetings because this doesn’t work for everyone and asked if there is a better approach. He asked members whether the WRPP-AC should aggressively pursue public outreach or “let sleeping dogs lie”. He reminded members about the informal “subcommittees” created during the last meeting:
• Compiling General stormwater and WRPP presentation slides (Leslie, Morgan, Alyson, and Rebecca. Dave, you mentioned adding Laurel Woodworth’s slides to the master set as well)
• Mapping out a bicycle tour for WRPP-AC members (Dave with staff help)
• Developing an awards program (Morgan, Leslie, Alyson).

Chair Hirschman stated that if members want to continue this work, they must select a structure for this other than communication via email. He suggested topic-driven meetings that aren’t official committee meetings or work sessions. He reiterated that the WRPP-AC cannot make decisions over email. Ms. Middleton questioned whether the “subcommittee” activities are within the WRPP-AC’s charge. She asked, “Is this our business, or is our business to be informed, advise staff, and inform the public?” Ms. Sappington stated that if opportunities arise to communicate WRPP information to the public, members can convey this information as individuals not speaking on behalf of the WRPP-AC. Ms. Quinn stated that the high-fee rate payers are the most interested parties, and they should speak directly with City staff. Meg Byerly Williams suggested that the WRPP-AC should shelf the “subcommittee” issues while members research and clarify their role, especially in light of the earlier budgetary discussion. Mr. Steigman suggested that it is good for the WRPP-AC to go ahead and develop a canned presentation but not for proactive public outreach at this time. Mr. Butler acknowledged members’ enthusiasm and ownership but noted that there is not a lot for the WRPP-AC to do at this time and suggested that members pull back to define and keep to their official charge. Members agreed to “pull back” and wait on pursuing “subcommittee” items until members better understand their charge.

Committee Discussion of City’s Weed Ordinance

Mr. Becker then led a discussion of the City’s Weed Ordinance, which relates to best management practice (BMP) issues. He questioned whether the weed ordinance would result in the City fining properties with BMPs. Mr. Sweet responded that the ordinance was submitted as an issue for NDS code overhaul. Ms. Hildebrand acknowledged that the ordinance could be used by a neighbor to complain about a BMP, but the City anticipates that the ordinance will be used to deal with true nuisances. Members asked about the ordinance’s definition for weeds, and Chair Hirschman asked whether NDS will address this issue. Mr. Sweet stated that this is a question for the City’s attorneys office. He noted that the City is developing a website that maps all green infrastructure projects throughout the City. Ms. Sappington wondered whether someone could help draft the definition, and Mr. Butler responded that individuals can submit their own suggestions.

Committee Member Items

Chair Hirschman then invited members to address any other issues. Ms. Sappington reported that the new Charlottesville Conservation Assistance Program (CCAP) incentive program bus posters have generated lots of calls. She noted that CCAP advertised the incentive program in Cville Weekly and asked for other advertising suggestions.

Mr. Stiegman suggested that the meeting #5 notes were too long and asked Ms. Byerly Williams to prepare shorter notes in the future. Ms. Byerly Williams responded that the meeting #5 notes were more detailed in part because of the staff presentations (the notes include slide text) and in part
because she recorded the meeting to help fill in gaps in the notes. She recognized that the meeting #5 notes are more detailed than they need to be but suggested that this may be appropriate given the content; during the last meeting members stated that they wanted the staff presentation slides available for the public. She stated that the meeting #5 notes contain most of the detail of those presentations, excluding the sensitive data. Ms. Byerly Williams stated that she will work to strike a better balance between presenting necessary details and keeping the notes to around 6 or 7 pages long.

**Staff Items**

Chair Hirschman asked staff if they had any remaining items to discuss. Mr. Sweet just noted that he is always available to answer members’ questions about WRPP and stormwater utility financials at any time.

**Adjournment**

The meeting adjourned at approximately 4:59 p.m.
Meeting #7: Meeting Notes

Date: July 13, 2015, 3:00 p.m. to 5:00 p.m.
Location: City Space, 100 5th Street NE, Charlottesville, VA

Attendees:
Advisory Committee Members: Brian Becker, Morgan Butler, Dave Hirschman, Leslie Middleton, Rebecca Quinn, Alyson Sappington, Meg Byerly Williams

City Staff: Dan Sweet, Stormwater Utility Administrator; Lauren Hildebrand, Director of Utilities; Bart Pfautz, Stormwater Technician

Comments on Meeting Notes & Agenda

Chair Dave Hirschman welcomed committee members to the third WRPP-AC meeting of 2015. Leslie Middleton remarked that no community members were in attendance at this meeting and asked whether the public receives notice of WRPP-AC meeting dates and times. Dan Sweet responded that WRPP-AC meetings are listed on the City’s calendar of events, which satisfies the notice requirements for public meetings. Rebecca Quinn stated that WRPP-AC meetings are listed prominently on the City’s home page on meeting days. Chair Hirschman asked members if they had any comments regarding the Committee’s meeting #6 notes. Members voted to approve the meeting #6 notes with no changes. Ms. Quinn requested more time to review the meeting notes and submit any changes. Members identified two clarifications required: (1) on page two of the notes, Mr. Sweet’s description of how enterprise funds work requires clarification and (2) the word “program” should be struck from the first full paragraph on at the top of page three. Members voted to approve the notes pending changes that any members may submit to Chair Hirschman by the end of the week. Brian Becker asked whether staff received any comments on the draft five-percent TMDL special permit compliance action plan (TMDL plan), and Mr. Sweet replied that they had not and do not expect to receive any. He noted that he planned to review the TMDL plan’s status during the staff briefing.

Staff Briefing

Mr. Sweet then briefed the WRPP-AC members on the Water Resources Master Plan procurement and status, the latest billing cycle, project updates, and the TMDL plan. Mr. Sweet stated that the City had selected Amec Foster Wheeler to complete the master plan and its two capital improvement plans (CIPs). Amec is based in Chantilly in Northern Virginia. Jean Haggerty, a project lead on a previous City project with Amec is no longer with the firm; however, David Bulova is involved, and Megan LeBoon will be the project manager. Mr. Sweet stressed that Amec was the clear leader among RFP proposals. Mr. Sweet anticipated having an executed contract for the master plan the next week and holding a kick-off meeting in August. Ms. Quinn asked whether Amec would present at the WRPP-AC meeting in October,
and Mr. Sweet responded that the master plan’s scope of work includes one meeting between Amec and the WRPP-AC; however, he was unsure whether this meeting would occur in 2015 or 2016. He noted that Amec will meet internally with City staff, with City Council, and with the WRPP-AC over the course of the project. Mr. Sweet then stated that Amec will accomplish three things: (1) select projects for inclusion in the water-quality CIP to meet the 40 percent goal, (2) select historic drainage projects to include in the drainage CIP, and (3) provide concept planning and cost estimates for both CIPs.

He then stated that the master plan process will move forward with the drainage CIP but will wait to begin the water-quality CIP until the City receives feedback from VA Department of Environmental Quality (DEQ) regarding the TMDL plan, as DEQ’s review of the TMDL plan likely will result in more guidance for the master plan. He said the current draft TMDL plan indicates that the City is already substantially in compliance, and therefore the Decision Support Systems (DSS) and water quality CIP may not be necessary at all to meet TMDL requirements. If this is the case the City must then do a “gut check” about how to proceed with the master plan. If the water quality CIP not necessary, the master plan may use a simpler, more streamlined version of DSS that enables adaptive management for the drainage CIP. Morgan Butler then asked if the master plan cost fluctuates depending on what it entails. Mr. Sweet responded that it does, as it is a time and materials contract. He said that the City can renegotiate the caps as needed. Ms. Middleton then asked whether a less expensive master plan frees up funding for aging infrastructure. Mr. Sweet responded that in the current five-year business plan that, yes, there is funding for both drainage and water quality design projects. He said in next two years the WRPP will have more funding for water quality construction through BMPs, stream restoration, or street sweeping. Mr. Sweet said the City also might need to repurpose some money from the existing budget, but what is especially challenging is deciding the next five-year business plan given the regulatory uncertainty in this process. Ms. Middleton then asked whether the local TMDLs will feed into staff’s decision making process. Mr. Sweet responded that one of the local TMDLs will be written in to the next MS4 permit, but the City will have an infinite amount of time to comply. He said that the Rivanna River TMDL is primarily for sediment, so the City will continue to track its sediment reductions. He stated that DEQ is allowing the City to count these reductions for both the Rivanna and the Chesapeake Bay load allocations, but this may change because the DEQ is wary of “double dipping” and credit stacking. When asked to describe the local TMDLs further, Mr. Sweet stated that there are two local TMDLs, one for the Rivanna River and one for Moores Creek. DEQ’s goal is to write both of these into the City’s MS4 permit. The Rivanna’s sediment TMDL is easier to address, but the Moores Creek TMDL is for bacteria and previous source identification studies have shown it to be wildlife. DEQ believes bioretention in the urban centers will manage these bacteria sources, but Mr. Sweet questions how implementing BMPs in North Downtown will stop raccoons and deer from polluting Moores Creek. Mr. Sweet stated that Moores Creek has a TMDL for sediment as well, but the City can parallel its efforts with regard to sediment reductions. It is much more difficult to manage bacteria unless it comes from a point source.

Mr. Sweet then presented a review of the stormwater utility’s first 2015 billing cycle. He stated that staff received six calls from citizens, three petitions for adjustment, which were approved and totaled $43 in refunds. He noted that the railroads paid their bills, but that the County did not. Ms. Middleton asked
whether the railroads would fight at the state level for a legislative fix, and Mr. Sweet responded that this is unclear and that the railroads may be perceived as wanting to avoid having precedent set at the local court level. Mr. Sweet then noted that changes to data affected ~200 stormwater utility bills but that staff received no phone calls specific to changes in bills due to data refinement. They did receive calls about whether escrow companies would pay the bills. He wondered whether the community has accepted the new stormwater utility bills because they are relatively low. Mr. Becker asked about the citizen who did not want his pool included in his utility bill calculation, and Mr. Sweet responded that the City’s position on pools is clear: if a pool is tied to indoor draining and empties to a sanitary sewer system it is considered pervious; if the pool drains to a yard or the storm drain system, it is impervious. Lauren Hildebrand noted that the Public Utilities struggles with how to treat pools, spray parks, splash pads, and fountains. Members then discussed ways to deal with pools.

Mr. Sweet then updated members on the status of several stormwater projects:

- The Old Lynchburg Road bioretention area is not functioning because of frequent and infrequent clean water sediment-infused discharges from the adjacent beach club’s pool that drain from a concrete trough and terra cotta pipe into the facility. NDS is doing internal design work for this facility, which is included in the TMDL plan. If the facility does not function properly after 2.5 years, it will be removed from the TMDL plan. Mr. Becker asked whether the sediment will lead to increased maintenance, and Mr. Sweet responded that it will not because it is fine, organic material that will metabolize.
- The Cherry Street project died on the design table. The adjacent parcel is developable, and its only access leads straight through the proposed facility location.
- The 909 East Market project involves permeable pavement. The project has experienced technology and weather delays but will be complete within a week.
- Construction has begun on the Venable School back parking lot bioretention area that is not functioning. The City received one expensive bid for this project, so Public Services is completing the project instead. The project includes a tree planting for a school-drowning victim.
- For Moores Creek at Azalea Park, staff met with DEQ to define a technical approach for the $450,000 grant-funded project. City Council approved an offer price for land purchase for this project, and staff will negotiate with the landowner this week. This land purchase includes the Refugee Center Garden (which the City hopes to maintain), stretches to I-64, and encompasses land from the Culvert exit at Old Lynchburg to where the City property ends past the garden. Ms. Middleton asked what lessons have been learned from previous stream restorations. Ms. Quinn then mentioned that the City’s Department of Parks & Recreation want less flooding, and Mr. Sweet responded that one structure creates a point where water jumps up into the park too early but that the restoration may help with this.
Design for the Charlottesville High School project, which involves bioretention and permeable pavers, is complete and Mr. Sweet is reviewing specifications. He said the City will release this project’s RFP soon. He noted that this project will provide pollutant removal and is included in the TMDL plan. The project will remove 30 parking spaces and replace them with a bioretention area.

Mr. Sweet then discussed the status of the TMDL plan. He stated that the plan presents the most advantageous of three scenarios for compliance. He reviewed a handout detailing the three scenarios which shows the percentage of compliance from the different compliance methods in each scenario. The first scenario includes street sweeping, voluntary projects, projects that exceed regulatory requirements, land use change, and nutrient management plans. Absent from this scenario are substantial large stream restoration projects. He noted that even without these two projects, and given very conservative assumptions, street sweeping accomplishes almost 16 percent of the phosphorous reduction requirement, almost 20 percent of the nitrogen requirement, and almost 35 percent of the sediment requirement. Mr. Sweet said recently released DEQ guidance showed how to calculate pollution reductions from street sweeping. Ms. Quinn voiced concern about the impervious off-street, surface parking lots that will not be swept. Mr. Sweet noted that by purchasing two more street sweepers and double or triple the covered lane miles to meet compliance requirements under this first scenario. Chair Hirschman mentioned that research indicates that streets themselves are not dirty; instead it is the gross solids, such as leaves, that litter storm drains and become a big nutrient source. Ms. Quinn asked whether the City has a schedule for cleaning storm drains, and Mr. Sweet responded that they are cleaned in rotation by neighborhood with a plan to complete the entire City every three years. Ms. Quinn asked whether increasing the frequency of storm drain cleaning would reduce pollution. Mr. Sweet responded that this depends on many factors.

The moderate scenario includes street sweeping and the Moores Creek/Azalea Park stream restoration project. This scenario accomplishes 41 percent of the phosphorous reduction requirement, 35 percent of the nitrogen requirement, and almost 71 percent of the sediment requirement. Mr. Sweet seems this is a likely scenario. And the third, scenario involves street sweeping, the Azalea Park project, and the Meadow Creek stream restoration project, which is complete but maybe not eligible. The third scenario accomplishes 110 percent of the phosphorous reduction requirement, 53 percent of the nitrogen requirement, and almost 175 percent of the sediment requirement. Mr. Sweet explained that the Meadow Creek project is complicated and that DEQ may not accept it.

Ms. Middleton wondered whether it matters that the City can meet the TMDL requirements with very little effort when the City still has impaired streams and whether the WRPP-AC should care about that. Mr. Sweet responded that the WRPP will have to gauge the public’s willingness to pay for stormwater investments that improve resources beyond what is required to meet the TMDL standards, which may amount to minimal improvements for local waterways. Mr. Becker wondered what would happen if the model and rates change in a few years after the City’s investment in street sweepers and the TMDL requirements are no longer met. Mr. Sweet stated that DEQ says everything in the five-percent TMDL plan will be set in stone even when more than 5% compliance is obtained in the 5% plan, so the City will include all existing compliance methods in the TMDL plan, not just street sweeping. Mr. Sweet responded that he thinks the Environmental Protection Agency will review the TMDL plans and intensify
the requirements. Ms. Quinn asked where green roofs come into this, and Mr. Sweet stated that green roofs are cost ineffective for TMDL compliance. Mr. Butler said that he finds it striking how the most stringent scenario in the TMDL plan is based on just two projects, one of which is already complete. He recollected the WRPP’s original goal was to create a stormwater utility to greatly improve stormwater management and water quality protection. Ms. Quinn wondered how this affects flexibility to relieve fee payers who need it. Both Chair Hirschman and Ms. Middleton suggested that the WRPP-AC can play a role in framing a discussion about whether the City should merely meet technical requirements or make actual stormwater management improvements throughout the City. Ms. Middleton asked whether wildlife sources are written off in Virginia.

**Committee Member Items**

Chair Hirschman then invited members to address any other issues. Ms. Middleton wanted to continue the budgetary discussion, and Ms. Quinn suggested having this discussion at the October WRPP-AC meeting before preparing the next end-of-year (EOY) report to City Council. She noted that this discussion and detail is necessary for the WRPP-AC to do its job. Mr. Sweet responded that all City line-item budgets will be available online and that he will share actuals for FY2015 if they are available. Ms. Middleton stated that she wants to see the budget in a spreadsheet on a regular basis to evaluate the program because this is the WRPP-AC’s job. She asked whether staff is unwilling to do this because it would create extra work for them or they think it involves too much oversight. Mr. Sweet responded that no set of definite numbers exists, so this request creates work for staff. He also questioned the precedent of providing this information to the WRPP-AC, wondering whether every advisory committee would want the same information. Ms. Quinn volunteered to review the WRPP-AC’s charge to review the committee’s obligations again, and Chair Hirschman asked about placing detailed budgetary information in the annual report. Mr. Sweet stated that the numbers in the last year’s EOY report were too confusing; he said that the report should provide either fewer or no numbers or a set of numbers that is less prone to misinterpretation. Chair Hirschman asked whether Mr. Sweet could present the financial numbers at the October meeting or bring a table of the types of numbers needed for the EOY report. Mr. Sweet responded, asking whether the WRPP-AC could provide a table template that staff could then populate. Ms. Middleton suggested using meeting notes to craft a template. After further discussion, Chair Hirschman asked Ms. Quinn, with Ms. Middleton’s help, to review the WRPP-AC’s charge again and report back to the committee about our role regarding budget oversight at the October meeting. He also asked them to prepare a template of the budget information needed to meet our charge requirements. Ms. Middleton asked whether they could send the template to Mr. Sweet for his input prior to the meeting. Mr. Sweet said this is fine but that he wants to talk with the City’s budget staff before proceeding.

Members then discussed how the County’s advisory committee is poised to recommend a utility fee instead of a service district and is hashing out how to implement the utility fairly between urban and rural land. As this rolls out, WRPP-AC members should be prepared for more scrutiny of the City’s stormwater utility.
Adjournment

The meeting adjourned at approximately 5:03 p.m.
Charlotte Water Resources Protection Program Advisory Committee

Meeting #8: Meeting Notes
Date: October 12, 2015, 3:00 p.m. to 5:00 p.m.
Location: City Space, 100 5th Street NE, Charlottesville, VA

Attendees:
Advisory Committee Members: Brian Becker, Morgan Butler, Dave Hirschman, Leslie Middleton, Rebecca Quinn, Alyson Sappington, Trey Steigman, Meg Byerly Williams

City Staff: Dan Sweet, Stormwater Utility Administrator; Lauren Hildebrand, Director of Utilities; Bart Pfautz, Stormwater Technician

Welcome and Comments on Meeting Notes

Chair Dave Hirschman welcomed committee members to the fourth and last WRPP-AC meeting of 2015. Members agreed to defer approval of meeting #7 notes until the January 2016 meeting to give members more time to review the these notes. Leslie Middleton requested that meeting notes be sent to members within a month of any meeting date. Meg Byerly Williams agreed to do this but notified the group that she can no longer provide meeting notes for the group after the end of the calendar year. Members discussed possible changes to notes format, such as summarizing the meeting in a bulleted list along with providing a complete meeting transcript, and Chair Hirschman suggested shelving this conversation until the following meeting. Dan Sweet reminded members that Alyson Sappington’s and Trey Steigman’s two-year membership terms will end in December 2015 and that one membership seat remains vacant. Ms. Sappington said that she will ask a fellow Charlottesville Conservation Assistance Program (CCAP) colleague to apply for her seat, and Mr. Steigman notified the group that he plans to reapply. Members agreed to actively recruit for the third vacant seat.

Staff Briefing

Mr. Sweet then briefed the WRPP-AC members on the Water Resources Master Plan procurement and status, the pending billing cycle, project updates, the TMDL plan, and credit applications. Mr. Sweet stated that the City had a master plan kick-off meeting Amec Foster Wheeler on August 12, 2015. During this meeting Amec and City staff reviewed potential projects for inclusion in the two capital improvement plans (CIPs). They reviewed 12 previously identified water quality projects for inclusion in CIP 1 and reviewed a list of historic and other City-identified drainage projects for CIP 2. They reduced the list of drainage projects to 23 projects that won’t all qualify as major capital drainage projects (projects that cost at least $100,000). The FY17 and FY18 WRPP budgets include $600,000 for a major capital drainage improvement program. Some smaller projects that are routine and within the right-of-way were moved to the City’s routine infrastructure work. The 23 identified drainage projects typically involve public water and are large, complex projects on multiple properties or private-property projects.
that may or may not trigger the major-capital-drainage threshold. Ms. Middleton asked whether the CIP 2 drainage projects could provide water quality benefits, and Mr. Sweet answered that this is possible and the master plan team will evaluate drainage projects for water quality benefits. He noted that projects that provide water quality benefits may transfer to CIP 1, as projects can shift between the two CIPs based on primary purpose. Ms. Middleton asked about the status of the Decision Support Systems (DSS). Mr. Sweet responded that VA Department of Environmental Quality (DEQ) regulations and guidance documents still provide no certainty, so staff is not sure yet whether the DSS is necessary. Staff is waiting for DEQ to issue review comments on the TMDL Action Plan (submitted October 1) by the end of the calendar year. These comments will provide a clearer picture in terms of compliance and will inform whether the master planning process will move ahead with a DSS as planned or a modified DSS tool. Mr. Sweet stated that the Bay Model will be rerun in a couple of years and if this results in an increase in loads, this may also inform the City’s approach to compliance. Mr. Hirschman stated that DEQ guidance suggests most MS4s can meet the full 15-year reduction target through some street sweeping and stream restoration, without a suite of BMPs and retrofits. Mr. Sweet said that it seems unwise to invest in a DSS if this does not change and that the City will not need an expensive DSS to take care of the backlog of drainage projects in CIP 2. He stated that the master plan could consist solely of the two CIPs, which should be complete by the end of January 2016, and he anticipates ranked results by July 2016. CIP project ranking will involve project evaluation, development of prioritization criteria, and consideration of preliminary costs. Rebecca Quinn asked whether the DSS would help with project ranking, and Mr. Sweet responded that the DSS could be a simple prioritization spreadsheet and that the master plan team does not require an elaborate, integrated dashboard DSS to select drainage projects; this type of DSS would help with a planning process for a larger regulatory compliance effort, which may or may not be necessary. Ms. Quinn asked if the City currently has criteria for ranking drainage projects, and Mr. Sweet responded that the master plan RFP solicitation contains suggested ranking criteria, and the City’s informal drainage policy that lays out criteria, which the master plan team will use as a skeleton in the ranking process.

Members then discussed the Neighborhood Development Services (NDS) Neighborhood Drainage Program, which provides property owners with the opportunity to share costs for projects addressing issues related to stormwater that drains from the City’s right-of-way onto private property. Mr. Sweet said that the go-to neighborhood drainage project is continuous curb and gutter, which must drain to a receiving system and which requires landowners downhill from the problem property to participate. The program’s cap is $15,000 with a 25-percent cost share by property owner. The utility funds a supplemental $50,000 for this program out of the capital plan, but NDS has not utilized this yet. Soon the utility will have a major capital drainage program, but the City currently does not address “medium drainage” projects that fall between neighborhood drainage and major capital drainage projects. He stated that CIP 2 will these include some medium drainage projects. He noted that, as it stands today, staff anticipates accomplishing more drainage and fewer water quality projects than originally anticipated.

Mr. Sweet then stated that staff had nothing major to report on the pending billing cycle, and he updated members on the status of several stormwater projects:
City is putting finishing touches on rebuilt bioretention area at Venable School back parking lot. UVA and University of Delaware are conducting a research project here on soil amendments in the biomix.

Final designs are almost complete for Forest Hill Park, and staff are weighing options for construction.

There is ongoing engineering for the Charlottesville High School project, and staff decided not to build this summer. Project will replace parking lot with filterstrip and permeable pavers.

The permeable pavement installed at 909 East Market seems to be working.

Moores Creek/Azalea Park SLAF project is likely dead because the land purchase negotiation with current landowner did not succeed. Because the property boundary is located at the creek’s center, the City does not own the entire creek. City staff is evaluating the appropriate timing to notify grantor of failed negotiation.

Mr. Sweet then stated that the state local assistance fund (SLAF) proposals are due in early December, and staff does not anticipate submitting this round. He stated that the City received no new stormwater utility fee credit program applications, noting that residents submitted only seven applications to date. Additionally, staff had received no responses to billing cycle letters notifying BMP owners of their possible eligibility. Mr. Sweet thinks the stormwater utility fees are too low to attract higher participation, as rate-of-return is very low and most landowners would not recover their investment in fee reductions in a reasonable timeframe if they applied. Chair Hirschman noted that the WRPP-AC should discuss this issue at a future meeting. Ms. Middleton asked whether the City performed a financial analysis when they set the rate, and Lauren Hildebrand responded that the City did perform an analysis. Chair Hirschman stated that Charlottesville’s credit program is probably the most generous in the state, and Mr. Sweet stated that it is probably the most complicated as well.

Mr. Sweet then discussed the status of the TMDL Action Plan. He stated that staff submitted the plan on October 1, 2015 and reviewed another handout detailing two scenarios in the plan showing percentage of compliance from the different compliance methods in each scenario. Staff removed from the plan a third scenario that included street sweeping and the Moores Creek/Azalea Park project, as this project is looking like a no-go. The first scenario involves street sweeping and other projects the City and the private sector have completed since 2009. The first scenario accomplishes ~25 percent of the total 15-year phosphorous reduction requirement (with 64 percent of this compliance from street sweeping), ~31 percent of the total 15-year nitrogen requirement (63 percent from street sweeping), and ~47 percent of the total 15-year sediment requirement (73 percent from street sweeping). The second scenario involves street sweeping and the Meadow Creek stream restoration project. It accomplishes ~95 percent of the total 15-year phosphorous reduction requirement, ~49 percent of the total 15-year nitrogen requirement, and ~151 percent of the total 15-year sediment requirement. Mr. Sweet thinks DEQ will reject the second scenario because they may determine that including the Meadow Creek stream restoration project constitutes credit stacking and “double dipping” because the project was used for compensatory stream mitigation through a separate set of state and federal regulatory requirements. Mr. Sweet stated that the City has seven-and-a-half years to achieve 40 percent of total pollution reductions, has already attained 25 percent. Mr. Sweet then stated that DEQ has 90 days to
approve the TMDL plan and that if the plan is approved, these numbers will be “locked in”. Chair Hirschman noted that this is good information to review in more detail in a future meeting.

Members discussed whether City residents would want to do more than the bare minimum to address water quality, and Mr. Sweet responded that members and staff are approximately 18 months away from discussing the utility fee rate, making recommendations to citizens, and facilitating the “willingness to pay” conversation with the community with regard to the rate and what the City wants to accomplish with regard to water quality improvements. Mr. Morgan asked how the City will accomplish 100-percent compliance. Mr. Sweet responded that it is possible that the 12 to 18 CIP 1 projects could achieve this. He stated that in this five-year permit cycle, the City must achieve five-percent compliance. Then, in the next five-year permit cycle the City must achieve 35-percent compliance (40 percent cumulative), and in the following permit cycle, the City must achieve 60-percent compliance (100 percent cumulative). Mr. Sweet said that the City is already more than half way to the 40-percent cumulative compliance requirement and can choose to coast on this for a few years or continue to execute a series of projects to learn more about BMP implementation and maintenance, knowing that actual compliance from this approach is not crucial. Brian Becker asked whether Charlottesville has an advantage compared to other municipalities, and Mr. Sweet responded that DEQ treats all municipalities the same way. Mr. Becker said that it is better for the City to stay ahead of the curve, and Mr. Sweet said that actual benefits to local waterways should be considered, expressing skepticism that the TMDL plan process will benefit the Chesapeake Bay as envisioned. The City created the WRPP to create public benefits, not fulfill paper requirements. Ms. Sappington wondered whether the numbers game will affect community willingness to complete drainage and water quality projects. Mr. Sweet responded that the City is completing one to two projects per year and that progress continues. Ms. Middleton asked how these projects are funded, and Mr. Sweet stated that the City will continue to pursue grants and dedicate funds for these projects.

**WRPP-AC Oversight Responsibilities and Budget Information**

Ms. Quinn and Ms. Middleton then led a discussion of WRPP-AC oversight responsibilities. They reminded members that WRPP-AC duties include periodic assessments of priorities and funding needs and led a discussion of what information members require to fulfill this charge. Ms. Middleton stated that regulatory uncertainties make this difficult and wondered how the WRPP-AC could access reasonable reports comparing the budget to actuals. She noted that staff is clearly on top of projects and budget/actual numbers but members struggle to follow their verbal reports. Chair Hirschman suggested reporting to City Council using a narrative description of the regulatory risk and uncertainty, compliance status, and other programs. Ms. Middleton questioned whether excluding actual numbers was wise since the WRPP-AC must answer citizens’ questions about how WRPP money is spent. Mr. Sweet noted that staff met with one citizen to answer his questions and that this person is now satisfied with the information staff gave him. Mr. Sweet also stated that the City is not doing a lot with the capital plan in the first two or three years, as it is in the process of building the program: setting up the billing system, determining how to spend the collected fees, spending money on pipe rehabilitation, and design. Ms. Quinn stated that the WRPP-AC needs to be able to trace utility fund expenditures back to
the rationale for utility establishment. Mr. Sweet responded that members have access to FY2014 actuals and the budget, which are publicly available. He reminded members that there is a two-year stretch of time between budget approval and audited actuals becoming available. He noted that a draft of the FY2015 actuals would be available by the end of the week but that sharing draft numbers with the WRPP-AC is problematic because they then become a matter of public record. Mr. Sweet reminded members that the WRPP is in a building stage and has planned reserves. The program is not spending funds yet because that is how its capital plan is set up. He said the program is still 18 months to two years away from being able to provide the information members are requesting as the business plan ends in FY2018. The rate discussion will take place after the program has three years of actual financials; at that point, the WRPP-AC can assess how funds were spent and what benefits the program achieved. Chair Hirschman suggested that the end-of-year report focus on how the WRPP is filling past voids, such as through the medium drainage projects Mr. Sweet described previously. Morgan Butler suggested that the WRPP-AC end-of-year report how the program is spending funds now and explain why the program hasn’t spent all of it. Ms. Middleton stated that members should address funding needs in the end-of-year report with these questions and ideas in mind. Mr. Steigman asked whether the City would give members access to the audited FY2015 financials, the approved FY2016 budget, and the draft FY2017 forecasted budget so the WRPP-AC can determine that the program is on track. Mr. Sweet said this is all publicly available but the budget/actuals timeline is a challenge. Ms. Sappington stated that we’ll have this information in a few years but that it is currently unavailable. Ms. Quinn and Ms. Middleton said they would meet with Mr. Sweet to see what staff can provide that is meaningful but not too burdensome and that they would attempt to report budget information in the end-of-year report.

**End-of-Year Report: Template and Assignments**

Members then assigned themselves the following writing tasks with suggested page lengths for the End-of-Year (EOY) Report:

1. **Introduction:** Dave Hirschman and Meg Byerly Williams (1/2 page)
2. **WRPP-AC Overview & Membership** (can use a lot of info from last year): Trey Steigman (1/2 page)
3. **Summary of Year Two WRPP Activities** (master plan, TMDL plan, overview of projects, such as pipe rehab, BMP projects in design or construction, public outreach efforts, etc.): Brian Becker and Morgan Butler in consultation with Dan Sweet (2 pages)
4. **Periodic Assessment of WRPP Priorities and Funding Needs:** Rebecca Quinn, Leslie Middleton, and Trey Steigman (1 page)
5. **Water Quality Incentive Program (CCAP):** Alyson Sappington (3/4 page with table)
6. **Stormwater Utility Fee Credit Applications:** Dave Hirschman in consultation with Dan Sweet (1/2 page with table)
7. **Looking Forward:** Brian Becker and Dave Hirschman (1/2 page)
8. **Knitting-Together Committee:** Meg Byerly Williams, Dave Hirschman, and Leslie Middleton

Members agreed to the following EOY Report schedule:
Due date for DRAFT Sections: 12/01/15
Due date to get report back to Committee for first review: 01/03/16
Due date to submit to staff for review: 01/15/16
Due date for staff to submit to City Manager for inclusion on Council Agenda: 01/31/16

Mr. Sweet asked whether the EOY report would include financial information for utility-funded projects only, and Ms. Quinn said the report should acknowledge projects funded elsewhere that contribute toward WRPP-AC goals without reporting financials for them. Ms. Middleton said that the report should discuss the WRPP-AC process and struggle with reporting budget information.

**Staff Items**

Ms. Hildebrand suggested it might be helpful for the City’s Director of Finance to meet with members at the next WRPP-AC meeting. She said she would approach him about this. WRPP-AC roles will turn over during the first committee meeting of 2016, and Mr. Sweet will send out a poll to select the 2016 meeting dates.

**Adjournment**

The meeting adjourned at approximately 5:09 p.m.
Introduction

The Water Resources Protection Program Advisory Committee (WRPP-AC) was established to advise City Council and City staff on issues regarding continued development and implementation of the Water Resources Protection Program (WRPP) and Stormwater Utility. Among other responsibilities, the WRPP-AC is charged with making an annual report to City Council.

This CY2015 report contains the following sections:

- **Section 1** provides an overview of the WRPP-AC’s duties, current membership, and second-year activities in conjunction with the program staff.
- **Section 2** includes some brief observations on WRPP priorities and funding needs and explains the regulatory and other areas of uncertainty the program is navigating.
- **Section 3** monitors WRPP program implementation, describing and evaluating the Water Quality Incentive Program, Stormwater Utility Fee Credit Policy, infrastructure rehabilitation, and project implementation.
- **Section 4** concludes with suggested WRPP-AC activities for CY2016.

The City of Charlottesville’s WRPP is designed to manage the City’s water resources and to address increasingly stringent stormwater management regulations in an economically practicable and sustainable manner.

In February 2013, City Council established the stormwater utility fee to provide an adequate and stable source of funding for the WRPP. The stormwater utility fee is a "fee for service" based on the amount of impervious surface area on individual properties (impervious area is a basic representation of the amount of stormwater that drains from properties). Revenue from fees is deposited in a dedicated Stormwater Utility Fund that can only be used for services and activities to accomplish the goals of the WRPP:

- Meeting state and federal regulatory requirements contained in the City's stormwater permit;
- Repairing and replacing deteriorating stormwater pipes and structures;
- Identifying and implementing capital projects, including:
  - Rehabilitation, replacement, and repair of City owned stormwater pipe systems;
  - Stormwater retrofits to attain mandated pollution reductions;
  - Drainage improvement projects to address local flooding and drainage issues;
  - Stewardship projects to preserve, enhance, and restore the integrity of the City's water resources; and
- Developing a City-wide Water Resources Master Plan to identify, select, and
Section 1. WRPP-AC Overview

WRPP-AC Duties

As established by City Council resolutions dated February 19, 2013 and December 16, 2013, the WRPP-AC is tasked with the following duties:

A. Engage in matters pertaining to the Water Resources Protection Program;
B. Conduct periodic assessments of program priorities and funding needs, including recommendations for potential adjustments in the stormwater utility fee rate by City Council once specific program objectives or milestones have been satisfied;
C. Monitor the formulation and implementation of the Water Resources Protection Program including, but not limited to, the following elements;
   i. Master planning;
   ii. Infrastructure rehabilitation, repair, and maintenance;
   iii. Progress with respect to pollutant reduction requirements established via the municipal separate storm sewer system (MS4) general permit;
   iv. Capital drainage program;
D. Report to City Council from time to time on the appropriateness and effectiveness of the credits and incentives program; and
E. Make an annual report to City Council.

WRPP-AC Membership

In 2015, the WRPP-AC was composed of the following eight (8) committee members: David Hirschman (Chair), Meg Byerly Williams (Secretary), Brian Becker, Morgan Butler, Leslie Middleton, Alyson Sappington (TISWCD), Trey Steigman, and Rebecca Quinn. Members of City staff who regularly attend and contribute to WRPP-AC meetings include Dan Sweet (Stormwater Utility Administrator), Lauren Hildebrand (Director of Utilities), Dan Frisbee (Water Resources Specialist), and Bart Pfautz (Stormwater Technician).

Summary of Year 2 WRPP-AC Activities

The WRPP-AC held four (4) meetings during CY2015: Meeting #5 - January 23, 2015; Meeting #6 - April 21, 2015; Meeting #7 - July 13, 2015; and Meeting #8 - October 12, 2015.

A primary WRPP-AC focus during CY2015 was on the planning process for the City to achieve municipal separate storm sewer system (MS4) General Permit compliance with the Special Condition for the Chesapeake Bay Total Maximum Daily Load (TMDL). Compliance requires phased reductions of the three pollutants of concern (POC) – total nitrogen (N), total phosphorous (P), and total suspended solids (TSS) – before the end of
FY2028. The phased approach requires MS4 permit holders to achieve at least 5% of their total POC reduction requirements during the current permit cycle, the next 35% of their total POC reduction requirements during the 2018-2023 permit cycle and the final 60% by the end of the 2023-2028 permit cycle. The City of Charlottesville completed its Chesapeake Bay TMDL Action Plan for the 5% POC reductions in June 2015, submitted the Action Plan to the Virginia Department of Environmental Quality (DEQ) with the MS4 Annual Report in October 2015, and responded to minor comments from DEQ in December 2015.

City staff also began development of the Water Resources Master Plan that will guide the Stormwater Utility Program’s efforts in selecting and implementing water quality protection projects and drainage systems improvements. The City prepared a Request for Proposals (RFP) that it issued in February 2015. In July 2015, the City selected and contracted with AMEC Foster Wheeler, an international engineering and project management firm with offices in Virginia, to complete the Water Resources Master Plan.

Development of the Master Plan, which is anticipated to take roughly 12-18 months, will involve selecting and prioritizing both water quality and drainage improvement Capital Improvement Projects to most effectively meet federal and state regulatory requirements, as well as WRPP goals and objectives.

In addition, the WRPP-AC was briefed and provided input on several stormwater Best Management Practice (BMP) projects the City has implemented or is pursuing on City-owned property. These include a permeable pavement project at 909 East Market Street, a vegetated filter strip and permeable paver project at Charlottesville High School, and the rehabilitation of the Old Lynchburg Road bioretention facility. One notable project implemented in 2015 is the reconstruction of a bioretention area at Venable Elementary School that incorporates novel soil media studied by the University of Delaware (UD). The media includes a type of iron soil amendment shown to improve removal of nutrient pollutants. The practice is being monitored by UVA and UD researchers.

While preparing the Chesapeake Bay TMDL Action Plan that was submitted to DEQ in October, staff determined that with existing BMPs in place, repairs and rehabilitation of existing projects that are not currently functioning as designed, and the inclusion of a few new practices, the City would be substantially in compliance with the Chesapeake Bay TMDL.

During CY 2015 individual WRPP-AC members undertook a few public outreach efforts over the course of the year that related to stormwater and components of the utility fee program, including a presentation to a church as well as outreach to neighborhood groups on the CCAP’s incentive program. Additionally, a subcommittee was formed to begin framing a social recognition awards program for BMP implementers.

Finally, CY2015 included two billing cycles for the Stormwater Utility Program (June 2015 and December 2015) and generated approximately $1.9 million in utility fee revenue. As per the approved budget of the Stormwater Utility Program, funds generated
from the utility program fees have been capitally invested in on-going drainage pipe rehabilitation projects, the master planning process, program operational costs, and banked-in capital reserves for future year design and construction of capital improvement projects.

**Section 2. Periodic Assessment of WRPP Priorities and Funding Needs**

Periodic Assessment of Program Priorities and Funding Needs

During a kick-off meeting for the Water Resources Master Plan (see Section 1), City and AMEC Foster Wheeler staff reviewed past and ongoing drainage concerns and previously identified water quality projects. As per the executed contract for the Master Plan, the work to be completed includes the development of two interconnected capital improvement programs (CIP):

**CIP 1 – Chesapeake Bay TMDL Compliance Strategy:** The subject of this CIP is to evaluate both previously-identified and new water quality projects that represent pollutant reductions eligible for compliance with the Chesapeake Bay TMDL.

**CIP 2 – Drainage Improvement Plan:** The subject of this CIP is to evaluate a population of previously-identified drainage issues dating back to the late 1970s. Projects will be divided into *major capital drainage* projects with an estimated cost of $100,000 or more and *minor capital drainage* projects with an estimated cost of less than $100,000 (and that do not meet eligibility for funding and implementation via the existing Neighborhood Drainage Program). It is an expressed goal of CIP 2 to find opportunities to integrate water quality improvements into repair or enhancement of drainage infrastructure.

The aforementioned master plan will articulate, rank, and prioritize individual projects in these two categories, and this is anticipated to be completed by the end of CY2016. This will provide key guidance for using the available utility capital funds in a strategic manner.

Another ongoing factor with regard to evaluating the program is the regulatory uncertainty with Virginia DEQ and Chesapeake Bay Program models, regulations, and permits. The City must meet specific pollutant reduction targets outlined in the MS4 permit. However, the numbers are subject to change in 2017 when the Bay Program updates the Chesapeake Bay Model that allocates pollutant loads and reductions to land uses across the Watershed. In addition, Virginia DEQ, responding to changes at the Bay Program, has modified its guidance to regulated MS4s on how to compute the specific reductions and the “credit” allocated to each type of practice. For instance in 2015, DEQ modified crediting for street sweeping, stream restoration, and several other practices – all key practices that MS4s use to compute their pollutant reductions. It is anticipated that additional guidance and crediting modifications will occur in the coming years.

The bottom line is that the regulatory climate remains extremely dynamic. While the City is currently on a sound trajectory for compliance with its 2023 and 2028 goals, these
goals may still shift, as may the methods of compliance. This uncertainty makes it difficult at present to fully evaluate the program, its funding, and the rate of implementation. The WRPP-AC, with assistance from staff, plans to keep abreast of the regulatory framework and to evaluate program priorities and funding on an ongoing basis.

An important community discussion lies ahead as the City’s water resources program continues to take shape. In future years, it will be necessary to engage City residents and businesses in “level of service” and “willingness to pay” discussions that marry regulatory compliance with local goals and desires for clean water. This will necessarily include an evaluation of how funds have been spent, what benefits have been achieved, and a review of program goals and priorities.

### Section 3. Program Implementation

The WRPP contains various program elements, as outline below:

- **Water Quality Incentive Program**: Program established by the City and the Thomas Jefferson Soil & Water Conservation District (TJSWCD), known as the Charlottesville Conservation Assistance Program (CCAP), to provide one-time incentive grants for construction of on-lot stormwater practices.

- **Stormwater Utility Fee Credit**: Fee credits (waivers) required by state law for property owners that own and maintain stormwater management facilities that provide permanent reductions in pollutants and/or stormwater runoff.

- **Pipe Rehabilitation & Other WRPP Projects**: Work to-date through capital projects to replace or line City-owned clay and metal pipes; implementation of new stormwater practices as part of other CIP projects, stand-alone stormwater retrofit projects, and redesign and reconstruction of existing stormwater practices.

- **Public Education & Citizen Engagement**: WRPP efforts to educate, inform, and engage citizens in the program.

#### Water Quality Incentive Program (CCAP)

The incentive component of the WRPP continues to attract the attention of small property owners in Charlottesville. The Charlottesville Conservation Assistance Program (CCAP) is a component of the Virginia Conservation Assistance Program (VCAP), administered locally by the Thomas Jefferson Soil and Water Conservation District (TJSWCD). CCAP funding is earmarked for Charlottesville residents only and is leveraged by VCAP funding as available. (VCAP has been funded entirely through grants, so funding availability varies significantly. The Virginia Department of Environmental Quality has now committed to providing a more sustainable stream of funding for VCAP for the next two years.)

Thus far in the program’s history, CCAP has received 22 applications from Charlottesville property owners. The most popular practice has been conversion of turf grasses to native meadows or landscapes, for which CCAP has received applications for
the conversion of 13,616 square feet of turf grass. Eighteen of the 22 projects have been completed. CCAP provided $22,945 for the completed practices, while $34,482 in matching funds supported those practices. An additional $7,481 in CCAP funds have been allocated for projects pending completion. CCAP has allocated a total of $30,426 in CCAP funds since January 2014, leaving a balance of $11,814 for future projects. CCAP has had several inquiries that may result in new applications.

CCAP projects and funding committed are summarized in Table 1. Several projects are highlighted in Figure 1.

### Table 1. CCAP Projects & Funding for Completed and Pending Projects

<table>
<thead>
<tr>
<th>Completed Practices</th>
<th>Matching Funds¹</th>
<th>CCAP Funds</th>
<th>Residential (R)</th>
<th>City Property (C)</th>
<th>Not-for-Profit (NFP)</th>
<th>School (S)</th>
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<tr>
<td>Turf Conversion to Native Plants - Meadow (TCN-m)</td>
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<td>Rain Garden (RG)</td>
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<td>Impervious Surface Removal (ISR)</td>
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<td>Dry Swales (DS)</td>
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<td><strong>$22,945.07</strong></td>
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**Approved for Payment Pending Project Completion**

<table>
<thead>
<tr>
<th>Completed Practices</th>
<th>Matching Funds¹</th>
<th>CCAP Funds</th>
<th>Residential (R)</th>
<th>City Property (C)</th>
<th>Not-for-Profit (NFP)</th>
<th>School (S)</th>
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<td>Turf Conversion to Native Plants - Meadow (TCN-m)</td>
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<tr>
<td><strong>TOTAL</strong></td>
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</table>

¹ Matching funds were provided largely by the Virginia Conservation Assistance Program, though some were private residents’ cost-share contributions.
### Figure 1. CCAP Project Examples

| Left: Sojourners Church Bioretention – funded through grants from the Rivanna Conservation Society and CCAP. LEFT: church volunteers plant the 2 bioretention cells with native plants. RIGHT: the practice in August 2015. Bioretention treats about 11,000 square feet of impervious cover. |
|---|---|
| **965-gallon Rainwater Harvesting System for residence** | **1500-gallon Rainwater Harvesting Systems for not-for-profit agency** |
| **Conservation Landscaping – Turf conversion to native plants for urban public housing site** | **Rain Garden for residence** |
Increased outreach over the past year boosted the number of citizens interested in installing conservation practices under CCAP. During the past year, CCAP developed a poster that was installed on CAT buses and posted in other locations, and also utilized an advertisement in the *C’ville Weekly*. These outreach activities resulted in increased interest from the community. In the coming year, CCAP staff hopes to conduct a tour of completed practices that they anticipate will generate additional interest.

Looking forward, the trend seems to indicate that demand for CCAP funded practices will continue to expand as word spreads. Initial interest from citizens tends to be focused primarily on vegetative practices (converting managed turf to native plants or installing rain gardens). Recently however, applicants are showing more interest in technical, structural practices, such as bioretention and rainwater harvesting.

The continuing challenge has been limited staff resources to provide the technical assistance that citizens request from TJSWCD staff. With additional resources to support technical assistance and outreach, the potential for increasing implementation of residential scale best management practices in Charlottesville is significant.

**Stormwater Utility Fee Credit Policy**

As opposed to the one-time grant associated with the Incentive Program, the Utility Fee Credit is an ongoing partial reduction of the stormwater utility bill.

In CY2015, the Stormwater Utility received one new application and has approved only seven to-date since the program’s inception. This is despite the City sending billing cycle letters to property owners eligible for the credit (namely, owners of existing practices for which utility credits are available). As such, the utility fee credit program continues the first-year trend of having little impact towards program goals or the overall budget.

By state law, all stormwater utilities adopted in Virginia must include a credit program. However, program staff and the WRPP-AC have observed that in Charlottesville, as well as other communities with a stormwater utility in the state, the utility fee is not at a rate that is high enough to provide a strong incentive for property owners to install stormwater BMPs on their properties. After all, these practices do have up-front costs, and the
savings per billing cycle from a credit may be low as a result of the fee itself being fairly modest. This can result in a long pay-back period. Also, the credit program application process is quite complex and usually requires the assistance of a stormwater professional to navigate.

The WRPP-AC believes that, at the current stormwater utility fee rate, the credit program might be better marketed as a stewardship opportunity. With little financial incentive to apply for the credit program, some property owners are more likely to consider implementing BMPs or improving their properties because it is the “right thing to do” for the City’s water resources and environment. This type of stewardship-oriented awards program may require a code amendment to the existing credit program, and the WRPP-AC will continue to explore this idea in 2016.

Pipe Rehabilitation and Other WRPP Projects

All thirteen miles of clay and metal stormwater pipes located in the City right-of-way are scheduled to be evaluated and rehabilitated, where necessary, over a ten-year period. All revenues spent on pipe rehabilitation in CY2015 were paid for with Stormwater Utility Revenues.

In addition, several small WRPP and Stormwater Utility-related projects are complete, underway, or being evaluated:
- Redesign of a non-functioning facility at Forest Hills Park;
- Redesign and reconstruction of a failing bioretention facility at Venable Elementary School;
- Construction of permeable asphalt pavement at the City’s Human Services Building;
- Design of a permeable pavement parking area and vegetated filter strip at Charlottesville High School; and
- Contracted maintenance for five existing City-owned stormwater management facilities.

Funding for these projects comes from Stormwater Utility funds and some remaining Environmental Sustainability Division stormwater funding allocated before the inception of the Stormwater Utility. Stormwater Utility funds likely will partially or fully finance construction of all projects listed above.

Section 4. Looking Forward to CY 2016

Potential WRPP-AC activities for CY2016 were discussed and prioritized at the first meeting in CY2016. The following are likely WRPP-AC topics for the year:

- Continue to monitor development of the Water Resources Master Plan and meet with the consultant to review program priorities and nexus with the CIP.
• Possibly review the utility fee credit program to determine if an incentive/stewardship approach may be more suitable.
• Work with staff to monitor regulatory changes at Virginia DEQ and with the Chesapeake Bay Program; keep abreast of how the City’s program can best respond to changes while addressing local priorities.
• Assist staff with any public outreach efforts where a WRPP-AC presence would be beneficial.

The members of the WRPP-AC would like to express their gratitude to the City’s stormwater staff for their diligent work to continue to develop the WRPP and Stormwater Utility programs. The staff has taken pains to inform the WRPP-AC and work with us to elevate our understanding of stormwater and the programs in place to address it. We look forward to continuing our work with staff to improve the program in the coming year.
Charlottesville Water Resources Protection Program Advisory Committee

Meeting #9: Meeting Notes

Date: February 1, 2016, 3:00 p.m. to 5:00 p.m.
Location: City Space, 100 5th Street NE, Charlottesville, VA

Attendees:
Advisory Committee Members: Brian Becker, Morgan Butler, Dave Hirschman, Leslie Middleton, Rebecca Quinn, Trey Steigman (reappointed in 2016 for another 3-year term), and Michael Ramsey and Dustin Greene (new Council appointments in 2016 for 3-year terms).
City Staff: Dan Sweet, Stormwater Utility Administrator; Lauren Hildebrand, Director of Utilities; Bart Pfautz, Stormwater Technician
Other: Alyson Sappington (Thomas Jefferson Soil & Water Conservation District)

Public Comment and Introductions
Ms. Sappington explained that she was in attendance as a former member of the advisory committee, representing TJSWCD. TJSWCD’s new representative is now Michael Ramsey. Michael Ramsey introduced himself, as did Dustin Greene, another new member of the committee.

Approval of Previous Meeting Minutes
Ms. Middleton requested clarification and changes (clarification of CIP1 and CIP2 on page 2; change “provides” to “rewards” first sentence of second paragraph; change “go-to” to “most common” on page 2 second sentence of second paragraph). The minutes with these changes were approved.

Staff briefing (Dan Sweet)

- Chesapeake Bay TMDL
  - Charlottesville Chesapeake Bay TMDL Action Plan has been approved by DEQ, with only minor comments. The process involved defining regulated/unregulated lands; establishing loads; inventorying BMPs and determining reductions.
  - The Action Plan documents that the City has achieved reductions in phosphorous (P), nitrogen (N), and sediments (TSS) in the following percentages towards the reductions required by the Special Condition for the Chesapeake Bay TMDL of the City’s 3rd MS4 permit:
    - 97.5% P; 61.1% N; 183.2% TSS
  - These reductions equate to meeting permit requirements for next 7.5 years.
  - There was discussion on whether we want to consider our job done because we are in compliance or whether we want to do more, with several members stating that it would be good to go beyond the Bay TMDL Action Plan requirements since we have impaired local streams.
Mr. Sweet presented a graphic that showed the percentages of each type of stormwater reduction practice used to achieve these pollution reductions. Stream restoration and street sweeping were largest contributors for reductions of all three pollutants.

DEQ has stated they will not publish other communities’ Action Plans on a public site. DEQ has also said that the requirements used to develop the Action Plan are fixed and will not change. However, street sweeping is an annual credit, and the Bay program has an expert panel developing guidance for accounting for annual reductions from street sweeping that would change the City’s accounting method. Whether the new guidance from the expert panel will require adjustments in the Action Plan has yet to be resolved.

- **Master Planning**
  - Because the City will comfortably meet requirements to achieve nutrient and sediment reductions per the Chesapeake Bay TMDL, the scope of the master planning process is likely to be reduced. The RFP was issued before the Chesapeake Bay TMDL Action Plan was approved and before the publishing of the protocol for street sweeping. As a result, the City is currently re-scoping the contract with AMEC, who won the bid.
    - The Decision Support System used to identify and locate best management practices to optimize reductions will likely not be pursued.
    - CIP1 (Chesapeake Bay TMDL Compliance Strategy, or water quality) may not be pursued or may be trimmed down.
    - However, staff plans to move forward with the CIP-2, the Drainage Improvement Plan.
    - Maintaining and making repairs to existing BMPs has now risen as a priority.
    - There are currently no deadlines for meeting the local TMDLs. However, Mr. Sweet stated that whatever we do to meet the requirements of the Bay TMDL will can also be applied to local TMDLs.

- **Project Updates**
  - CHS parking lot biofilter BMP has been modified to route sheet flow from the parking area to a forested/vegetated buffer strip.
  - The Venable bioretention BMP is progressing, and planting is the next activity on the schedule. Experimental practices involving the use of zerovalent iron and biochar are being evaluated at this site in cooperation with UVA and University of Delaware.

- **Maintenance**
  - The City had to disengage from a contract for maintenance of stormwater BMPs due to procurement/contractual issues. The City is exploring what is the best way to deal with maintenance of BMPs.

**CCAP Presentation from TJSWCD (Michael Ramsey)**

- Mr. Ramsey provided a history and overview of the CCAP program, including the list of BMPs eligible for cost share.
- The program includes outreach by TJSWCD, application by citizen, review by TJSWDC Board, approval by TJSWCD, site visit by TJSWCD, approval of the project, and reimbursement.
• A frequently encountered obstacle is that there is a 10 year operations and maintenance agreement, which can be an impediment for groups that want to install a facility on land they do not actually own.
• Mr. Ramsey said that the typical citizen partner is usually someone already interested in, and in the planning stages of, a project. The CCAP program offers additional incentive that can help make it happen.
• Mr. Sweet said that, at this point, citizens are implementing more stormwater BMPs than the City. This points to the possibility that the City may need or want to increase its role in facilitating and encouraging the citizens’ work.
• Mr. Sweet said he is not concerned that there is any “double dipping,” i.e., citizens utilizing CCAP to reduce BMPs installation costs and thus being eligible for the Stormwater Utility Credit Incentive. There are few seeking credit, and a relatively small amount being reimbursed to citizens in the Credit program.

End of Year Report

• Mr. Hirschman reported that the end of year report is being edited based on comments from committee members. It will be sent to staff by end of week, who will review it before submitting to the City Manager.
• Mr. Sweet expected that the report will be on the City Council’s agenda in late March at the earliest.
• The committee agreed that it is still premature to undertake a review of the stormwater utility rate.

Advisory Committee Business

• The committee suggested that advisory committee webpage include term expiration dates for members. See: http://www.charlottesville.org/departments-and-services/departments-h-z/public-works/environmental-sustainability/water-resources-protection-program
• Committee officer elections
  o Leslie Middleton was elected committee Secretary.
  o Brian Becker was elected Chair.
• Mr. Becker and the committee outlined potential priorities for 2016:
  o Off-site education brief by staff to AC members
  o Interface with Master Plan contractor
  o Discuss possible water quality improvement projects
  o Discussion regarding re-focusing\expanding priorities of WRPP in spite of significant compliance with the Chesapeake Bay TMDL already being achieved.
    ▪ Sentiment from at least a few members that regardless of significantly meeting compliance, the City should move forward with improving water quality.
    ▪ Mr. Sweet stated that there is a huge need already – and not enough funding to cover -- drainage and drainage infrastructure.
  o Mr. Sweet stated that the program should continue implementing projects and that when it is time for the rate review, there will be data that show what has been accomplished and with how much funding.
General discussion of the four WRPP drivers:
- Regulatory
- Infrastructure
- Stewardship
- Drainage and Flooding

Mr. Sweet said that funding can be moved around to address different drivers at different times.

Ms. Quinn pointed out that the program is described by a 5-year business plan.

Though maintenance for stormwater BMPs has been in limbo, committee members believe that it will become an increasingly important priority.

Committee members expressed interest in land acquisition as a BMP. Staff offered to include in the July discussion of CIP1 and CIP2 projects some potential examples of using utility fee revenue to purchase land or easements that could be used for green infrastructure projects (such as stream buffers in sensitive areas).

Staff Items

- Mr. Sweet suggested the Advisory Committee develop a specific list of topics that can be explored at each committee meeting.
- Ms. Middleton suggested staff develop a list of items that could provide helpful advice or items the committee could research or undertake independently.
- The group thanked Alyson Sappington (who is leaving the committee), and Dave Hirschman (who is stepping down as Chair) for their service on the WRPP Advisory Committee.

The meeting adjourned at approximately 5:00 p.m.
Charlottesville Water Resources Protection Program Advisory Committee

**Meeting #10** Final Meeting Notes  
Date: April 25, 2016; 3:00pm to ~5:00pm  
Location: City Space, 100 5th Street NE, Charlottesville, VA

**Attendees:**  
*Advisory Committee Members:* Brian Becker, Morgan Butler, Meg Byerly, Dustin Greene, Dave Hirschman, Michael Ramsey  
*City Staff:* Dan Sweet, Lauren Hildebrand, Kristel Riddervold

**Public Comment and Introduction**  
Mr. Becker announced that the city’s financial director, scheduled to speak at today’s meeting, had to cancel. Mr. Becker then offered a short overview of issues the committee is either scheduled to discuss or could consider exploring at upcoming meetings:

- AMEC, the city’s consultant on the master plan, will attend the committee’s July meeting to go over the status of the master plan and discuss proposed projects in CIP1 (water quality projects) and CIP2 (drainage projects).
- Some committee members have previously voiced an interest in reviewing the committee’s mandate and purview, including looking at the bylaws and relevant Council resolutions.
- Rescheduling the city’s financial director for a future meeting.
- Inviting the county to provide an update on the status of its consideration of a stormwater utility fee.

Mr. Ramsay asked that new members receive copies of some of the key documents outlining the stormwater utility fee program and the advisory committee’s role; staff agreed to provide those documents.

No members of the public were present to comment.

**Approval of Previous Meeting Minutes**  
The committee discussed the draft meeting notes from its February 1, 2016 meeting. Mr. Butler requested a clarification be added to indicate that staff had offered to include in the July discussion of CIP1 and CIP2 projects some potential examples of using utility fee revenue to purchase land or easements that could be used for green infrastructure projects (such as stream buffers in sensitive areas). The February 1, 2016 meeting minutes were approved on the condition that the clarification would be added by staff.

**Staff Briefing** (Mr. Sweet, as supplemented by Ms. Hildebrand and Ms. Riddervold)

**Stormwater Projects Update**

Mr. Sweet provided a brief update of various ongoing projects:
- Charlottesville High School stormwater retrofit:
  - Notice of Award pending; construction to start in June.
  - Base bid: ~$250,000
  - Approximately $200,000 will be funded with a combination of grant, school board and environmental funds; city is considering using stormwater utility funds to cover the remaining $50,000.
  - Estimated to achieve ~2.11 pounds of phosphorus removal.
  - Stormwater utility will provide maintenance.
- Forest Hill Park stormwater retrofit:
  - Plan almost complete; approach is to convert a very poorly functioning project to a biofilter/bioretention basin.
  - $100,000 construction estimate.
  - Estimated to achieve 6.4 pounds of phosphorus removal.
- Moores Creek at Azalea Park:
  - Some progress made re: land acquisition.
- Stormwater retrofit at Venable:
  - Close to completion; staff hopes to complete planting this spring.

See staff’s meeting handout for additional details.

**Maintaining stormwater BMPs**

Mr. Sweet briefly summarized the maintenance roles of the city’s departments of Public Works and Parks and Recreation, where the Utility now fits into the picture, and what it all means for maintenance of stormwater BMPs. Public Works has historically been responsible for maintaining gray infrastructure (e.g., pipes), and Parks and Recreation has typically maintained green infrastructure. However, Parks and Recreation has made clear they can no longer afford to take on new facilities, including stormwater facilities. The Utility’s current approach is to help maintain stormwater projects that other departments install if those projects help the City meet its TMDL requirements. In the future, it’s possible the Utility could cover maintenance of a broader array of stormwater facilities using stormwater utility revenue, but that would need to be incorporated into the next iteration of the Utility’s business plan.

**Water Resources Master Plan**

Mr. Sweet provided an update on the master plan. Key points included:

- Contract modified to reduce scope following DEQ approval of City’s Bay TMDL Action Plan and the additional degree of clarity/certainty that approval provided regarding the City’s obligations. Modifications include:
  - elimination of Decision Support System;
  - elimination of detail concept plans for water quality CIP; and
redemption in contract price from ~$395,000 to ~$240,000.

- The entire master plan process should be wrapped up shortly after July. Following completion, new potential projects will be ranked pursuant to the mechanism contained in the master plan, and this will help determine whether they are added to the master plan.
- AMEC, the City’s consultant on the master plan, will attend the committee’s July meeting and brief the committee on projects contained in CIP1 and CIP2. Mr. Sweet suggested the committee may wish to add an hour to its July meeting to allow for the desired level of information and discussion.

See meeting handout for additional details.

Factors in Considering/Prioritizing Drainage Projects

Mr. Sweet outlined the set of factors staff has typically used to determine the drainage projects located on private property it should pursue:

- City’s potential legal liability
- Public health and safety
- Structural damage
- Neighborhood and off-site impact
- Erosion
- Preventing an existing situation from worsening
- Cost-benefit analysis

See staff’s meeting handout for additional details.

CIP Budget “Big Picture”

Mr. Sweet provided an update on the utility’s budget:

- Nearly all of the $2.5 million allocated to rehabilitation projects has been spent to date, as well as the $600,000 balance in previous funding.
- Approximately $210,000 was saved from the original master plan budget.
- $120,000 increase versus plan in 2016 budget (additional fee revenues and slight shift from operational to capital).
- $220,000 increase versus plan in 2017 budget (less budgeted monies for fund balance and slight increase in fee revenues).
- As a result, there are approximately $550,000 in additional revenues to be programmed, and these will likely be used on additional rehabilitation projects or water quality projects identified in the master plan.

Planning for Next Five Years
Mr. Sweet noted that we are roughly halfway through the period covered by the current business plan and it is time to start thinking about the next one. He proposed this be a topic of discussion at the committee’s October meeting. Staff aims to have the next business plan approved by mid-year of 2017.

**Q&A/General Discussion**

Committee members discussed a few topics at a general level, including:

- Because the City’s approved TMDL action plan more than satisfies the City’s full (final year) requirement for total suspended solids and nearly satisfies the full requirement for phosphorus, will nitrogen removal be a key factor in selecting water quality projects?
  - Staff suggested this is an option but also pointed to the possibility of nutrient credits and trading being more cost-effective approaches.
- Mr. Greene suggested it might make sense for the city to expand its street sweeping program to private parking lots.
- Staff reported that Council received the committee’s 2015 year-end report at its April 4, 2016 meeting without discussion. Mr. Sweet suggested the committee consider including recommendations concerning the WRPP’s next five-year plan in the 2016 year-end report.
- Ms. Riddervold called committee members’ attention to, and invited feedback on, the City’s new CityGreen interactive online tool that maps and shows photographs of projects and resources around Charlottesville that contribute to the City’s environmental sustainability efforts. One of the layers shows the green infrastructure BMPs located in the City. Ms. Riddervold explained that the CityGreen tool is the outgrowth of prior plans to develop a Green Infrastructure Plan.
- Mr. Sweet announced that Bart Pfautz, formerly the city’s stormwater technician, has accepted a position within the city’s neighborhood development department. The city is current conducting interviews to fill Bart’s former position, and Mr. Sweet expects the position to be filled by July.
Projects Update:

- CHS Stormwater Retrofit:
  - Notice of Award pending
  - Permeable Pavement retrofit and conversion of paved parking area to forested buffer.
  - Base bid around $250,000.
  - Mix of grant, school board, and environmental funds cover $200,000.
  - Considering using Stormwater Utility Funds top cover gap
  - 2.11 lbs of phosphorus removal.

- Forest Hill Park Stormwater Retrofit
  - Plan near final
  - $100,000 construction estimate
  - 6.4 lbs of phosphorus removal

- Moores Creek at Azalea Park
  - Signs of life on land acquisition

Projects Update:

- Water Resources Master Plan
  - Contract modification processed to reduce scope and fee
  - Total contract went from $395,000 to $240,000
  - The Decision Support System tool was eliminated in total
  - The detailed concept plans for the Water Quality CIP were eliminated
  - CIP#1 – Water Quality: evaluates and ranks 18 projects
  - CIP#2 – Drainage
    - evaluates and ranks 23 historic and recent drainage issues
    - Will break list into major and minor capital drainage
    - Detailed concepts for top 5 projects.
1. Legal Liability
   a. Water is being collected from a large area and forcibly discharged or dumped onto a private property by the City.
   b. The problem is caused by the City diverting the flow of a natural watercourse onto private property.
   c. The problem is caused by the City having dammed or impounded the natural flow of a stream, thereby creating flooding upstream of the impoundment.
   d. The problem is caused by deterioration of inadequate maintenance of a drainage facility installed by the City, or installed by a private party but used by the City to facilitate the drainage of public property.

2. Public Health and Safety
   a. Problem creates a safety problem on a public street or public property.
   b. Drainage threatens the structural integrity of public utilities.
   c. Drainage creates a traffic hazard.
   d. Flooding impact on a sanitary sewer system.

3. Structural Damage
   Where drainage is causing damage to structures, especially residentially occupied structures.
   Where there is a significant financial loss due to drainage.

4. Neighborhood and Off-Site Impact
   Where a drainage condition is having a deteriorating effect on the neighborhood or where a solution to the problem would assist up-stream problems and not create down-stream problems.

5. Erosion
   Where drainage is causing significant erosion to the property or the stream bed.

6. Prevention
   Where the drainage problem is likely to further worsen the situation due to future development or further deteriorating existing conditions.

7. Cost Benefit
   Cost benefit of the project will be considered in determining drainage priorities.

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CIP Budget Big Picture

- Close to spending the 2.5 million in rehab dollars advocated to date plus the $600,000 balance in previous funding

- Have achieved a net savings of +/- $210,000 from original Master Plan budget

- $120,000 increase versus plan in 2016 budget (additional fee revenues and slight shift from operational to capital)

- $220,000 increase versus plan in 2017 budget (less budgeted monies for fund balance and slight increase in fee revenues)

- Result is $550,000 in additional revenues to be reprogrammed
Planning for the next five years

- Current business plan ends on 6/30/18
- Staff briefing on first 2.25 years to be scheduled soon
- Start dialogue with public and elected officials this calendar year
- Develop levels of service and rate options during first half of calendar year 2017
- Public outreach and Council adoption of next 5 year business plan no later than mid calendar year 2017 so we can prepare an informed budget submittal for FY 2019 in fall of CY 2017
Charlottesville Water Resources Protection Program Advisory Committee

Meeting #11  Meeting Notes
Date:        July 25, 2016; 1:00pm to 5:15pm
Location:    City Space, 100 5th Street NE, Charlottesville, VA

Attendees:
Advisory Committee Members: Brian Becker, Morgan Butler, Meg (Beverly) Williams, Dave Hirschman, Michael Ramsey, Leslie Middleton, Trey Steigman, Rebecca Quinn
City Staff:  Dan Sweet, Lauren Hildebrand, Kristel Riddervold, Bob Brown
Contractors: David Bulova, Troy Biggs, Matt Breen (AMEC-Foster Wheeler)
Public:      Leena Seville

Introduction
Mr. Becker reviewed the agenda for the meeting, expected to last about four hours.

Public Comment
There were no public comments at this time (see end of these minutes).


Approval of Previous Meeting Minutes
Ms. Middleton requested that the meeting minutes reflect some of the presentation material from the April 25 meeting, specifically providing clarifying information about two bullet items on page three under CIP Budget “Big Picture,” as follows:
  - $120,000 increase versus plan in 2016 budget - additional fee revenues and a slight shift of funds from operational to capital.
  - $220,000 increase versus plan in 2017 budget - less budgeted monies for fund balance and slight increase in fee revenues.

Ms. Middleton also requested that the handout from last meeting’s presentation be included as part of the meeting minutes to make this accessible to the public. Mr. Sweet said it wasn’t an issue of whether this information could be made accessible, but rather how it would be made accessible.

Mr. Becker offered to work with staff to clarify this issue.

The April 25, 2016 meeting minutes were approved with the additions to the bullets above, and pending resolution of the question of whether that meeting’s presentation materials would be included as part of the public record.

Ms. Middleton also noted that the WRPP Advisory Committee minutes on the City’s web page were current through April 2015, and asked that they be brought up to date.
Committee Member Updates
Ms. Middleton noted that the Albemarle County Stormwater Utility Advisory Committee (on which she and former city advisory committee member, Alyson Sappington served) had recently reconvened at the request of the Board of Supervisors to reassess whether the committee’s recommendation for a stormwater utility would change in light of the county’s progress towards meeting the Chesapeake Bay TMDL, one of the program drivers. The committee narrowly affirmed the need for elements of the stormwater program and a utility fee to provide funding to meet these needs.

Staff Briefing (Mr. Sweet, as supplemented by Ms. Hildebrand and Ms. Riddervold)
Staff noted that information generated during the City’s recent “Streets that Work” workshop hosted by the Green Infrastructure Center was now online and welcomed feedback on this from the committee. See http://www.charlottesville.org/community/community-initiatives/a-green-city/-green-infrastructure/green-infrastructure-workshop-july-2016

Mr. Sweet announced that the City is being considered for a technical assistance grant from EPA Region 3 to pursue market based approaches to green infrastructure implementation and regulatory compliance. In addition to technical assistance, a cash award of $75-100k may be included.

Staff and Contractor Presentations
Staff provided an update of the City’s progress to date:
- City is within 1.5% of 2028 phosphorous reductions, 40% of 2028 nitrogen reductions, and has met and exceeded the total suspended solid reductions.
- To date, the City has repaired or rehabilitated +/- 7.5 miles of City-owned clay and metal pipes for a cost of $3.1 million, which represents 56% completion.
  - Specifically, the City has re-lined 6.2 miles of City-owned pipes; replaced 1.3 miles of pipe and made 89 “point” repairs to the stormwater system.
- Two-thirds of the stormwater pipes within the City are located on private land, with substantial portions of the public system “comingled” with private piping. Large portions of the City often lack a comprehensive storm drain network.
- The City remains committed to environmental stewardship.

Program Drivers and Regulatory Environment. AMEC-Foster Wheeler reviewed the stormwater utility program drivers (state and federal mandates; managing stormwater; managing and correcting local drainage and flooding issues) and the regulatory environment, with these highlights:

- The utility was created during a time of unstable environmental regulations, which persist.
- Virginia DEQ is starting to require TMDL action plans for local impaired streams, which may lead to more requirements in addition to the Chesapeake Bay TMDL pollutant reductions.
- The 2017 Bay TMDL Mid-Point Assessment will be based on updated models and monitoring data. The assessment will be used as the basis for Virginia’s Phase III Watershed Implementation Plan (WIP), which will outline how reductions must be made in each of the pollution sectors (e.g., wastewater, stormwater, agriculture, etc.) by 2025.
• There will be more emphasis on requiring MS4-permit communities to meet stormwater reduction goals, and changes in the allocations, if they occur, will likely be reflected in 2023-2028 MS4 general permit.

Master Planning

Mr. Sweet reminded the committee that the City decided to scale back the master planning process given the recent feedback from the state that the City has made significant progress towards meeting the Chesapeake Bay TMDL, one of the utility program’s drivers. The process (and contract with AMEC-Foster Wheeler) is now focused on evaluating potential capital improvement projects that could be funded under CIP I (primarily addressing water quality) and CIP II (primarily addressing drainage problems).

CIP I project evaluations
Mr. Sweet said that the City compiled a list of 37 projects. These were evaluated, resulting in 15 viable projects based on these criteria:
- Drainage area of 5-20 acres
- Life cycle and maintenance costs
- Cost effectiveness of Phosphorous removal (e.g. less than $50k per pound)
- Access constraints
- Visibility to the public
- Natural resources (impacts to trees, wetlands)

Projects included stormwater pond retrofits; stream restoration projects and small distributed projects on City land.

CIP II project evaluations
Mr. Sweet said that they began with a list of 69 projects that represented potentially unaddressed drainage issues in the City. After site visits, consideration of the projects relevance to known flooding/drainage issues, and the willingness of landowners (if on private property) to work with the City, the list was narrowed down to 11 projects. He noted that a lot of street flooding issues have been addressed through the pipe maintenance that the City agreed (cleaning and flushing 10% of the system each year) to as part of the MS4 permit. Preliminary ranking of projects was based on these criteria:
- Private property
- Construction access
- Utility relocation
- Road closures
- Multiple effects, e.g. opportunity for water quality benefit
- Safety
- Impact to trees
- Relative cost/ acre of drainage
- Severity of the drainage issue
AMEC Foster Wheeler showed spreadsheets derived from various analyses weighing different factors for each of these categories.

Detailed concept plans will be developed for the top five drainage projects.

**Discussion**

Staff sought feedback from the committee regarding the evaluation process. Ms. Riddervold encouraged the committee to think of the “stewardship” aspect of improving local water quality within the context (and one of the goals) of the stormwater utility.

With respect to drainage projects, there is the outstanding question of “who pays?” For example, there are circumstances where “City water” drains through private property, following the natural fall of the land, as well as the question of whether stormwater utility funds should be used to address problems that result from the direct action of private property owners. Mr. Sweet noted that the stormwater drain system is “comingled” throughout the City, just as the stormwater itself is “comingled” (draining from both private and public property). Also, natural drainage ways were commonly piped to facilitate the beneficial use of private property, not to address public drainage. Mr. Sweet spoke of the relatively common issues of “sinkholes” on private properties that are often the result of a series of improvised solutions or older deteriorated pipes.

The City may look for the property owner to take some responsibility for issues on private property. In some cases, there is a clearly definable public benefit that may encourage the City to resolve drainage issues on private property.

These situations are evaluated on a case by case basis as they arise, in direct consultation with the City Attorney’s office.

One option that has been implemented in several instances is for the City to rehabilitate pipes using internal lining technology on private property, with the property owner having responsibilities for future maintenance and repairs. Another option is for the City to secure an easement on private property and assume long term responsibility for operation and maintenance of the pipe. If there is a clearly definable water quality benefit to solving a drainage problem by implementing a structural stormwater management facility, the public benefit of the pollutant reductions may justify the use of public funds.

Staff concluded by saying that it intends to continue the weighting analysis, given committee feedback

- Include adjustments for “severity of problem”
- Marry these projects to the City’s current policy on fixing drainage problems
- Identify which projects are major or minor
- Consider a “medium cost” project (less than major projects but more than minor projects)

Staff asked whether the committee liked the existing criteria used for ranking. Committee members offered the following:
• CIP 1 (water quality projects) need to be evaluated in context and whether the project could be made more cost-effective if piggy-backing on another project
• Visibility of projects – and distributing them around the City – is important
• CIP 2 (drainage) projects should also have a water quality benefit
• We should be asking ourselves what projects would contribute to the sustainability of the stormwater utility.
• Consider traditionally “underserved” neighborhoods, where improvements could encourage further public and private investments
• Concern about doing any further CIP 1 projects (for water quality) in such an uncertain regulatory environment
• Consider doing smaller (less costly projects) until regulatory requirements are more certain

Next Programmatic Steps
Mr. Sweet said that the master-planning contract with AMEC Foster Wheeler will end 12/16/16.

Mr. Sweet noted that the current business plan created at the inception of the stormwater utility ends on 6/30/2018, and that he must provide funding requests for the FY19 budget in the fall of 2017. Thus, it is time now to start thinking about the next five-year budgetary cycle (FY19-23).

Mr. Sweet said that he anticipates that evaluation of the stormwater utility rate will be a major topic for the advisory committee in 2017. Ideally, he said, any rate change should be put in place prior to the FY18 budget.

Staff will distribute the weighting spreadsheet for CIP 1 from AMEC Foster Wheeler to committee members for their review prior to the October meeting.

Public Comment
Ms. Leena Seville of Belmont commented on the committee’s deliberations, emphasizing the opportunity to include thinking that has emerged from the Biophilic Cities project led by Tim Beatley from UVA: http://biophiliccities.org/.

The meeting adjourned at approximately 5:15 p.m.
WRPP Review and Water Resources Master Plan Discussion

July 25, 2016

**Agenda**

1:20-1:40  Review of program drivers / program delivery

1:40-2:00  Review the TMDL regulatory environment and our drainage challenges

2:00-2:20  The Master Plan process

2:20-3:00  Draft CIP 2 for drainage

3:00-3:40  CIP 1 for Water Quality

3:40-4:00  CIP 1 wth distributed Green Infrastructure and dual Water Quality/Drainage projects

4:00-5:00  Interactive scenarios and weighting/criteria

5:00-5:10  Next steps
Review of Program Drivers

The WRPP is designed to:

- comply with federal and state stormwater regulations
- rehabilitate the City's aging stormwater system
- address drainage and flooding problems
- pursue environmental stewardship

Comply with federal and state stormwater regulations

Compliant with Chesapeake Bay TMDL until 2023 and then only 39% Nitrogen and 1.5% Phosphorus needed
Rehabilitate the City's aging stormwater system

*Rehabilitate Replace or Repair 13 miles of City Owned Clay and Metal Pipes over 10 years funded at 1 million per year*

- 56% complete with initial mandate and spent approximately 3.1 million in 3-5 years which includes work outside of specific task
- “first pass” through Neighborhoods nearly complete
- “reconciliation” of remaining pipes to start soon

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Rehabilitate the City's aging stormwater system

*Rehabilitate Replace or Repair 13 miles of City Owned Clay and Metal Pipes over 10 years funded at 1 million per year*

- CIPP lining
  - 6.1 miles of Public Clay and Metal
  - 0.7 mile of Public Concrete and Plastic
  - 1.0 miles of Private Pipes
- Pipe Relay = 1.3 Miles
- Point Repairs = 89
- Modernizing structures
- Addressing “forgotten” easements
- Reconfiguring redundant and inefficient existing systems
- Trying to address private public drainage issues
Address drainage & flooding problems

- Co-mingled storm drains system with two thirds on private land and mostly privately owned
- Many poor construction practices and material choices likely by original builders in older, often annexed, neighborhoods
- Large portions of the City do not have comprehensive drainage infrastructure
- Using City drainage policy as guide for intervention when private owners bring forth drainage issues where there is public benefit/liability
- More details to come in CIP 2 presentation

Pursue Environmental Stewardship

- Everything we do?
- CCAP?
- Doing today what we will be required to do tomorrow?
- A flexible glove to fit an ever changing hand?
TMDL Regulatory Environment and Upcoming Challenges

Challenges & Unknowns

- Local TMDL Action Plans – currently not a major impact; could change if DEQ requires greater accountability.
- Outside Funding – City benefitted from a $450K Stormwater Local Assistance Fund grant; continued funding not guaranteed.
- Land Ownership Issues – good projects in concept run into issues with ownership/access.
- Pollutant Removal Efficiencies – changing rules affect the City directly and indirectly (changes impact Virginia’s overall progress).
- Mid-Point Assessment – 2017 Chesapeake Bay TMDL assessment is likely to change targets.
2014-2015 Milestone Progress

2017 Mid-Point Assessment

- Key question “Does the model reflect what is really happening in the water?”
- Chesapeake Bay model is being updated; completion in June 2017.
  - New high resolution (1 meter) land use data
  - Updated monitoring data
  - Updated stormwater control efficiencies
- Virginia will adopt a new Watershed Implementation Plan (WIP) based on the updated model.
Anticipated Findings

- Looking good for Virginia to meet 2017 targets.
  - Wastewater is hitting it out of the park
  - Agriculture is ramping up as expected
- Stormwater is moving along, but...
  - Phase I MS4 localities got started much later than anticipated
  - Virginia provides more credit for certain practices than the Bay Program
  - Unregulated urban land area greater than anticipated; needs to be made up somewhere

Potential Implications

- While 2017 benchmarks are for the total load, final targets must be met by sector.
- Potential outcomes?
  - Increase required reductions for MS4s?
  - Move compliance target date to 2025?
  - Assign reduction targets by locality or other geographic area?
- Assessment results will be integrated into the next round of MS4 permits (2018).
Master Planning Progress

- Favorable Chesapeake Bay TMDL compliance conditions
  - Eliminate need for DSS
  - 5% Action plan produced 61% TN, 97.5% TP, and 183% TSS
  - Reduced emphasis on CIP 1, but not eliminated due to other WRPP drivers
  - Concept planning removed from scope
- CIP 2 to include conceptual planning
  - Concept plans for 5 highest ranked drainage projects
    - DA, limits of disturbance, facility sizing, grading, access/staging, tree removal, feature details, cost estimates, etc.
    - Incorporate water quality measures where possible
  - Planning-level concept plans for all remaining and viable drainage projects

Identified Water Quality Projects

- City Identified Projects
- Pond Retrofits
- Stream Corridor Desktop Analysis
- City Property Desktop Analysis
- Drainage Project Opportunities
Water Quality Project Screening

- Nutrient removal benefit using ALERT
- Nutrient removal benefit for stream projects using expert panel interim removal rates/Protocol 1
- Cost estimating
  - King and Hagan (2011)
  - James River Association (2013)
- Feasibility & Field Evaluation

Identified Drainage Projects

- 1993 Citywide Drainage Program Memo
  - Legal liability
  - Public Health and Safety
  - Structural Damage
  - Neighborhood and off-site impact
  - Erosion
  - Prevention
  - Cost-Benefit
- Public Works Department/Neighborhood Development Services compilation of known historic and current drainage issues
Drainage Project Screening

- List vetted with input from City
- Feasibility and Field Evaluation
- Planning level conceptual approach
- Burdened costs developed to inform ranking

CIP2 Drainage Background

- Historic backlog of unresolved/unfunded drainage problems/projects
  - 1993 Citywide Drainage Program Memorandum
  - 1985 Planning Commission List
  - 1982 Public Works Drainage Problems List
  - Additions to list added in 2008 from staff survey
  - Select projects brought forth by citizens since Stormwater Utility launch

- 69 potential projects in total

- Two work sessions with NDS manager and Streets Operations Supervisor reduced the list to 23 based on current status of issue

- Ongoing work efforts and site investigations reduced to 11
CIP 2 - DRAINAGE

• Field visit to 23 different drainage projects
• Eliminated 12 projects
  – Original drainage problem not observed
  – Current residents not experiencing problem or not interested in solution
  – Issue best addressed by other City program or division/department

Drainage Projects Criteria

• Private property
• Construction access/utility relocation
• Road closure
• Water quality opportunity
• Multiple affected properties
• Safety concerns
• Tree impacts
• Relative cost - $ per acre
• Severity of drainage/City drainage policy
Project Cost

• ROM Cost
• Base cost development (Citywide storm rehabilitation contract)
• Storm Sewer, inlets, asphalt, curb and gutter, sidewalk, green infrastructure

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CIP 1 – WATER QUALITY

• Identified 37 potential projects
• 15 viable projects
  – City identified projects reduced after evaluating feasibility
  – Field Evaluation resulted in fewer projects
Project Selection

- Focus on drainage areas 5-20 acres
- Maintenance costs
- Cost effective phosphorous removal
  < $50k per lb
- Included small distributed projects on City property
- Pond Retrofits and Stream Restoration

Water Quality Projects Criteria

- Drainage area
- Phosphorous reduction (lb per yr)
- Ownership
- Total Cost
- Phosphorous ($ per lb)
- Cost efficiency
- Access constraints
- Utility constraints
- Visibility
- Natural Resources
GI in the WQ CIP

Master Plan Next Steps

• Refinements based on today and staff meetings to be completed

• Dynamic CIPs finalized early fall

• Selection of 5 drainage projects for concept plan development

• Master Plan contract complete by 12/31/2016
Programmatic Next Steps

- Current business plan ends 6/30/18
- FY19 Budget due fall 2017
- No time like the present in terms of rate study / level of service / willingness to pay / FY19-23 business plan
- Start with high level staff briefing this fall and move into rate study and other outreach
- Anticipate major topic for WRPP AC in CY2017
- Ideal to have a rate change, if any, approved by Council prior to FY19 budget. If not, likely to propose a flat budget

CBP3 with EPA

- Participated in several events on the topic over the last 9 months
- Recently attended White House Roundtable on Chesapeake Bay Natural Resources Investment
- Anticipate announcing EPA partnership this fall which includes technical assistance and a cash award between $75,000 - $100,000
CBP3 with EPA

- Concept of a Regional Watershed Performance Contract
- Scales up local water resources improvements
- Innovation and emerging technologies
- Regulatory resiliency and flexibility
- Achieve a lower net cost for urban GI by rural BMP implementation
- Green jobs
- Shift the Operations and Maintenance Burden
- Potential partnership with other watershed MS4s
- Leverages emerging market based financing strategies
Meeting #12  Meeting Notes  
**Date:** Oct 25, 2016; 3 PM to 5 PM  
**Location:** City Space, 100 5th Street NE, Charlottesville, VA  

**Attendees:**  
*Advisory Committee Members:* Brian Becker, Morgan Butler, Dustin Greene, Dave Hirschman, Michael Ramsey, Leslie Middleton, Trey Steigman  
*City Staff:* Dan Sweet, Lauren Hildebrand, Bob Brown  

**Background info**  
Technical information about the decision support system (DSS) tool designed by AMEC-Foster Wheeler and sample evaluations of CIP I water quality best management practices against various criteria.  

1. **Introduction**  
Mr. Becker reviewed the agenda for the meeting.  

2. **Public comment**  
There were no public comments.  

3. **Approval of previous meeting minutes**  
Mr. Hirschman asked for clarification, under CIP II project evaluations, of the “pipe maintenance requirement” of the City’s MS4 permit. Mr. Sweet explained that the City has committed to clean and flush 10% of the stormwater conveyance system annually to comply with the City’s MS4 permit. Cleaning and flushing is done by the City on a 5-7-year cycle; maintenance on the +/- 50-mile public stormwater conveyance system, of which roughly 13 miles is clay or metal pipe, is ongoing.  

Dustin Greene noted that he was not present at the last meeting. With this correction, the July 25, 2016 meeting minutes were approved.  

4. **Discussion regarding committee member terms.**  
Mr. Becker noted that five committee members’ 3-year terms will be completed at the end of 2016: Brian Becker, David Hirschman, Morgan Butler, Meg Byerly, and Leslie Middleton. Meg Byerly and Leslie Middleton have said that they are not planning to request reappointment. Mr. Becker said that he plans to request reappointment by Council. He requested that Mr. Hirschman and Mr. Butler let him know by the end of October whether they plan to request reappointment. Mr. Sweet will be in touch with the Clerk of the Council to make sure that the notice for volunteer committee members includes a request for new members of the Advisory Committee. Mr. Sweet also said that the City does not require the committee to have a minimum of 7 members in order to conduct business (the by-laws state that the AC shall be comprised of between 7 and 9 members and that a simple majority is necessary to conduct business). Mr. Hirschman stated that it would be good to have representation from the non-profit sector (e.g. church).
5. **Committee member updates**  
Mr. Ramsey noted that the TJSWCD has received a grant from the Alliance for the Chesapeake Bay that offers cost share dollars for homeowners wishing to install stormwater BMPs on their private property.

6. **Staff items**

Mr. Sweet reviewed the basics of the status of the stormwater utility and required reductions in phosphorous, nitrogen, and sediment:

- The stormwater utility has about $800,000 budgeted in Fiscal Year 2018 for water quality improvement construction.

- In accordance with the City’s Approved Chesapeake Bay TMDL Action Plan, the City is compliant with the 40% Phosphorus (P), Nitrogen (N), and sediment/total suspended solids (TSS) reduction requirements for the second permit cycle (2018-2023). The City has meet the third permit cycle (2023-2028) 100% reduction requirement for P and has exceeded the 100% reduction requirement for TSS. The City requires approximately 1,000 pounds of reductions to meet the 100% requirement for N.

- Though there are emerging technologies that improve effectiveness of nitrogen removal, right now wet ponds and constructed wetlands get the highest N removal per acre. Achieving the remaining 1,000-pound reduction however, will be very difficult with these kinds of practices in the City due to limited number of possible sites and the amount of acreage needed to achieve substantial reductions. For example, the constructed wetland at Azalea Park, which is a larger facility removes 94 lbs of N. The eleven possible projects currently identified for consideration would only achieve an estimated 13% of the total N reductions required at a cost of $2 -3 million.

- Nutrient trading for N is just starting to become a possibility, but there have not yet been any sales to MS4s trying to meet N reductions. It is difficult to evaluate the “value” of reducing a pound of N in the present trading environment.

- In general, trying to design a program around single-pollutant reduction is generally cost-prohibitive.

- Albemarle County, which has two large constructed wetlands projects (Crozet and Woodbrook), has the inverse problem: has meet 100% N reduction requirements, but not 100 % P reduction requirements. There may be an opportunity in the future to either “trade” with Albemarle County or create a larger, regional system together with the County that benefits both parties.

**Project updates**

- The CHS retrofit project is largely done.

- Forest Hill Park will likely be a retrofit of a pond to a 2-cell bio-retention facility. Mr. Sweet expects this project to go out for bid in the late spring of 2017.

- Due to changes made during the repair on the Old Lynchburg Road Biofilter, the project will be treating a smaller drainage area than originally planned and will yield less pollution reductions. The Stormwater Utility will be assuming maintenance of the facility as long as there is at least 0.5 lbs. of eligible phosphorus reductions. (Note: in
general, the Stormwater Utility will not be assuming maintenance for City facilities implemented by other City parties unless there is greater than 0.5 lbs. reduction in P.)

- Moores Creek restoration project that was to be constructed using the state Stormwater Local Assistance Fund (SLAF) has been delayed because purchase of required land may not be completed during the grant timeframe.
- Mr. Sweet said that the City is still in conversation with EPA Region III regarding a Community Based Public-Private Partnership (CBP3). The focus of the draft letter of agreement is an integrated green infrastructure strategy that would promote local water quality improvements, green job creation, and green street implementation in lower social-economic census blocks.

7. CIP I (water quality) scenarios

Mr. Sweet showed how the DSS spreadsheet can be used to evaluate projects by changing the weighting of criteria, such as cost efficiency (cost per pound of P removal), access constraints, utility constraints, visibility to the public, and impact on natural resources. He said that he has generally weighted the cost factor the highest (~60%); however, the question of whether a practice provides green infrastructure (and thus social benefit) is also important.

Another issue in evaluating potential projects on private property is whether the City should address the stormwater and/or drainage problem. If the property owner benefits from a drainage improvement, but is unwilling to contribute to the cost, should the City assume the full cost? The City may get credit for the pollution reductions if a water quality benefit is a component of the improvement, but there would remain the question of who is responsible for the maintenance if on private property. This issue is more directly applicable to CIP II.

Mr. Butler asked whether the developer responsible for the project could be asked to chip in to the cost of the BMP and/or maintenance.

Mr. Ramsey suggested that requiring a 10-year maintenance agreement with the homeowner or HOA might be a stumbling block for a project that would be good solution for a neighborhood drainage problem.

Mr. Sweet said he utilizes City drainage guidance and works in consultation with the Director of Utilities and the City Attorney on public/private drainage issues on a case by case basis.

Mr. Ramsey suggested that these small urban projects might serve as the basis for an urban nutrient exchange program. Mr. Sweet said that developers are required to address only P reductions in their stormwater permits, so would only be interested in credits for P reductions. MS4s could, theoretically establish a nutrient bank and sell N, P, and TSS credits to a range of buyers.

Committee discussion and feedback on DSS tool

Mr. Sweet said that his inclination, as discussed at the previous Advisory Committee meeting, would be to invest the $800,000 from the stormwater utility on a couple of cost-efficient pond retrofits and a few smaller neighborhood-scale BMPs to showcase methods. He said that many
communities are finding that when focusing on trying to address stormwater in smaller, municipally-owned spaces such as medians and other right of ways, that the cost is prohibitively high. Treating ¼-acre at a time is a costly way to get reductions.

Mr. Becker asked committee members to weigh in on the direction the City is headed with prioritizing how to spend utility fee funding.

Mr. Becker suggested that N removal should be a weighting factor in the DSS, understanding that nitrogen removal practices can be very costly.

Ms. Middleton agreed, saying that N reduction appears to be the most important goal for the City to meet its Bay TMDL requirements.

Mr. Hirschman suggested that “IC (impervious cover) reduction” could be used as one of the criteria.

Mr. Becker added that it would be good to consider whether a project can contribution to solving drainage problems (CIP II) and water quality problems (CIP I).

Mr. Steigman said the DSS tool brings a lot of clarity to the challenges and opportunities in decisions regarding stormwater investments.

Mr. Hirschman suggested that the option to purchase N-reduction credits could be embedded in the DSS tool. For example, if a project exceeds a certain cost value, then N offsets should be included in the evaluation of that project.

Next Programmatic Steps
Mr. Sweet said that the master-planning contract with AMEC Foster Wheeler will end 12/16/16.

Mr. Sweet noted that the current business plan created at the inception of the stormwater utility ends on 6/30/2018, and that he must provide funding requests for the FY19 budget in the fall of 2017. Thus, it is now time to start thinking about the next five-year budgetary cycle (FY19-23).

Mr. Sweet said that he anticipates that evaluation of the stormwater utility rate will be a major topic for the advisory committee in 2017. Ideally, he said, any rate change should be put in place prior to the FY18 budget.

While there is an expectation from the AC that staff will distribute the weighting spreadsheet for CIP II (drainage) from AMEC Foster Wheeler to committee members for their review and feedback, staff would like more time to complete the model and incorporate the AC’s Q4 meeting feedback before considering distribution.

8. Review of Resolution and Bylaws

Mr. Becker reviewed the charge of the Advisory Committee as articulated in the City Council’s Resolution creating the committee and the Bylaws:
To engage in matters pertaining to the Water Resources Protection Program;
To conduct periodic assessments of the program priorities and funding needs, including recommendations for potential adjustments in the stormwater utility fee rate by City Council once specific program objectives or milestones have been satisfied [italics added];
To monitor the formulation and implementation of the Water Resources Protection Program including the following elements:
  o Master planning;
  o Infrastructure rehabilitation, repair, and maintenance;
  o Progress with respect to pollutant reduction requirements established via the municipal separate storm sewer system (MS4) general permit;
  o Capital drainage program;
Conduct periodic review of incentive program;
To meet with the Program Administrator at least three (3) times per year for the purpose of making recommendations on policy matters concerning the water resources protection program;
To make an annual report to City Council.

Ms. Middleton asked for clarification of what was meant by satisfying “specific program objectives or milestone. Elements articulated during the discussion include:
  • Meeting the Bay TMDL required reductions.
  • Addressing local water quality issues.
  • Ensuring a robust incentive program for homeowners.
  • Ensuring that the stormwater utility is “working well”.

9. End of Year (EOY) report

Mr. Becker and Ms. Middleton agreed to draft the EOY report and distribute to the committee for comment before the end of the calendar year. Last year’s report will be used as a template. Mr. Hirschman suggested that the report be kept “simple,” maybe only 1-2 pages long.

Mr. Sweet said he would clarify whether or not the committee could “approve” the EOY report via email without violating FOIA meeting requirements.

The meeting adjourned at approximately 5:00 p.m.
Executive Summary

The Water Resources Protection Program (WRPP) was established to comply with federal and state stormwater regulations, rehabilitate the City’s aging stormwater system, address drainage and flooding problems and pursue environmental stewardship in an economically practicable and sustainable manner. The program implementation is proceeding as expected. The stormwater utility fee has been through six billing cycles and appears to be proceeding smoothly. Revenue generated by the fee continues to be invested in on-going drainage pipe rehabilitation and future design and construction of capital improvement projects.

The City offers a Stormwater Utility Fee Credit to reduce the stormwater utility fee for property owners that implement Best Management Practices on their property. Property owners are not responding to the Stormwater Utility Fee Credit Program, most likely due to the high cost of implementing a practice and the modest reduction in the fee that would be generated. The Water Quality Incentive Program continues to attract attention, though applications were significantly down in CY2016. Potentially a stewardship program, where property owners are recognized for their conservation efforts, would create more interest in BMP implementation by property owners.

The City of Charlottesville’s Chesapeake Bay TMDL Action Plan was accepted by Virginia DEQ in 2016, putting the City substantially in compliance of all the requirements for the Chesapeake Bay TMDL through the next permit cycle ending in 2023 and on tract to meeting the final reduction goals for phosphorous and total suspended solids by 2028. Remaining nitrogen reduction requirements may be more challenging to meet. Regulatory uncertainty persists with the Chesapeake Bay TMDL Program which may result in changes to guidance and/or increased requirements over time.

For the time being, with the water quality objectives apparently being met, the immediate program emphasis is turning to addressing drainage issues inherent to a comingled public/private drainage system. A city-wide Water Resources Master Plan is under development to identify, prioritize and select water quality drainage improvement projects.
Background

The Water Resources Protection Program Advisory Committee (WRPP-AC) was established to advise City Council and City staff on issues regarding continued development and implementation of the Water Resources Protection Program (WRPP) and the Stormwater Utility. The WRPP is designed to comply with federal and state stormwater regulations, rehabilitate the City's ageing stormwater system, address drainage and flooding problems and pursue environmental stewardship in an economically practicable and sustainable manner.

In February 2013, City Council established the stormwater utility fee to provide an adequate and stable source of funding for the WRPP. The stormwater utility fee is a "fee for service" based on the amount of impervious surface area on individual private properties (impervious area is a basic representation of the amount of stormwater that drains from properties into the city's regulated stormwater system). Revenue from fees is deposited in a dedicated Stormwater Utility Fund that can only be used for activities and services required to meet the objectives of the WRPP which include:

- Meeting state and federal regulatory requirements contained in the City’s stormwater permit;
- Identifying and implementing capital projects, including:
  - Rehabilitation, repair and replacement of the City owned stormwater pipe systems;
  - Stormwater retrofits to attain mandated pollution reductions;
  - Drainage improvement projects to address local flooding and drainage issues;
  - Stewardship projects to preserve, enhance, and restore the integrity of the City's water resources; and
- Developing a City-wide Water Resources Master Plan to identify, select, and prioritize projects to accomplish the WRPP's goals and objectives.

To meet these objectives, the WRPP contains various program elements, as outline below:

- **Stormwater Utility Fee**: The stormwater utility fee, a “fee for service” based on the amount of stormwater that drains into the City's regulated stormwater system, provides an adequate and stable funding source for the WRPP.
- **Stormwater Utility Fee Credit**: Fee credits (waivers) required by state law for property owners that own and maintain stormwater management facilities that provide permanent reductions in pollutants and/or stormwater runoff.
- **Water Quality Incentive Program**: Program established by the City and the Thomas Jefferson Soil & Water Conservation District (TJSWCD), known as the Charlottesville Conservation Assistance Program (CCAP), to provide one-time incentive grants for construction of on-lot stormwater practices.
- **Pipe Rehabilitation & Other Project Implementation**: Work to-date through capital projects to replace or line City-owned clay and metal pipes; implementation of new stormwater practices as part of other CIP projects, stand-alone stormwater retrofit projects, and redesign and reconstruction of existing stormwater practices.
- **Public Education & Citizen Engagement**: WRPP efforts to educate, inform, and engage citizens in the program.
WRPP Advisory Committee Overview

WRPP-AC Duties

As established by City Council resolutions dated February 19, 2013 and December 16, 2013, the WRPP-AC is tasked with the following duties:

- Engage in matters pertaining to the Water Resources Protection Program;
- Monitor the formulation and implementation of the Water Resources Protection Program including, but not limited to, the following elements;
  - Master planning;
  - Progress with respect to pollutant reduction requirements established via the municipal separate storm sewer system (MS4) general permit;
  - Infrastructure rehabilitation, repair, and maintenance;
  - Capital drainage program;
- Conduct periodic assessments of program priorities and funding needs, including recommendations for potential adjustments in the stormwater utility fee rate by City Council once specific program objectives or milestones have been satisfied;
- Report to City Council from time to time on the appropriateness and effectiveness of the credits and incentives program; and
- Make an annual report to City Council.

WRPP-AC Membership

In 2016, the WRPP-AC was composed of the following nine (9) committee members: Brian Becker (Chair), Morgan Butler, Meg Byerly Williams, Dustin Greene, David Hirschman, Leslie Middleton (Secretary), Michael Ramsey (TJSWCD), Trey Steigman, and Rebecca Quinn. Members of City staff who regularly attended and contributed to WRPP-AC meetings include Dan Sweet (Stormwater Utility Administrator), Lauren Hildebrand (Director of Utilities), Bart Pfautz (Stormwater Technician) and Bob Brown (Stormwater Technician).

Summary of Year 3 WRPP-AC Activities

The WRPP-AC held four meetings during CY2016:

- WRPP-AC Meeting #9 – February 1, 2016
- WRPP-AC Meeting #10 – March 25, 2016
- WRPP-AC Meeting #11 - July 25, 2016
- WRPP-AC Meeting #12 - October 25, 2016.

The Advisory Committee activities undertaken during 2016 are described below.

- **Stormwater Utility Fee implementation, including the credits and incentives program:**

  Staff provided briefings to the WRPP-AC during CY2016 on the Stormwater Utility Fee billing, collection and use of the funds. CY2016 included two billing cycles for the Stormwater Utility Fee (June 2016 and December 2016) in which $1,924,770 was billed. As per the approved budget of the Stormwater Utility Program, funds generated from the
utility program fees have been capitally invested in on-going drainage pipe rehabilitation projects, the master planning process, program operational costs, and banked-in capital reserves for future year design and construction of capital improvement projects. After a small number of initial petitions for adjustments, the implementation of the Stormwater Utility Fee, which has now been through 6 billing cycles since its inception, is proceeding smoothly.

The **Stormwater Utility Fee Credit** is an ongoing partial reduction of the stormwater utility bill for property owners that own and maintain stormwater management facilities that provide permanent reductions in pollutants and/or stormwater runoff. By state law, all stormwater utilities adopted in Virginia must include a credit program. There were no requests for credit adjustments in CY2016 and only eight requests have been approved since the program’s inception. As such, the utility fee credit program continues the first-year trend of having little impact on program implementation or the overall budget.

The stormwater utility fee does not appear to be at a rate that is high enough to provide a strong incentive for property owners to invest in stormwater BMPs on their properties. Because the fees are modest the savings per billing cycle are low for those who may choose to take advantage of credits which results in a long pay-back period. Additionally, the credit program application process is complex and usually requires the assistance of a stormwater professional to navigate, increasing an owner’s investment. The WRPP-AC believes that, at the current stormwater utility fee rate, the credit program might be better marketed as a stewardship opportunity. With little financial incentive to apply, some property owners are more likely to consider implementing BMPs or improving their properties because it is the "right thing to do" for the City’s water resources and environment. The WRPP-AC will continue to explore the idea of a stewardship-orientated program in 2017.

In addition to the credits (reduction in annual stormwater utility fees) the **Water Quality Incentive Program** offers cost-share for home owners to install stormwater BMPs on their property. The Charlottesville Conservation Assistance Program (CCAP) is a component of the Virginia Conservation Assistance Program (VCAP), administered locally by the Thomas Jefferson Soil and Water Conservation District (TJSWCD). CCAP funding is earmarked for Charlottesville residents only and is leveraged by VCAP funding as available. VCAP has been funded entirely through grants, so funding availability varies significantly. In 2016, CCAP received 5 applications from Charlottesville property owners. The most popular practice has been conversion of turf grasses to native meadows or landscapes but rain water harvesting and infiltration practices are on the rise.

City staff and the WRPP-AC have observed that many homeowners install practices on their own initiative. Anecdotally, it appears that some homeowners balk at the requirement for the 10-year maintenance agreement, which is necessary to allow the City to count these practices towards the regulatory pollution reductions. Whether or not the City can count these practices, numerous, distributed stormwater BMPs positively impact water quality.

- **Regulatory Compliance**

In early 2016, the Virginia DEQ approved the City of Charlottesville’s Chesapeake Bay TMDL Action Plan, a requirement of the City’s municipal separate storm sewer system (MS4) General Permit. The Action Plan describes the phased reductions of the three pollutants of
concern before the end of FY2028: total nitrogen (N), total phosphorous (P), and total suspended solids (TSS, also referred to as sediment). With the approved Action Plan in place, which includes existing stormwater best management practices (BMPs), repairs and rehabilitation of existing projects, the implementation of a few new BMPs, and street sweeping, the City is in compliance with the Chesapeake Bay TMDL through the next permit cycle ending in 2023. The City is also on track to meet 2028 reduction goals in phosphorous and total suspended solids, but still requires additional reductions in nitrogen. In addition to the Chesapeake Bay TMDL, Virginia DEQ is expected to start requiring TMDL action plans for local impaired streams, which may lead to more accountability and requirements. Currently, approximately 16 stream miles in the City are listed as “impaired or threatened for one or more designated uses by a pollutant(s) and requires a TMDL.”

Evaluating the program is complicated by the regulatory uncertainty with Virginia DEQ and Chesapeake Bay Program models, regulations, and permits. The City must meet specific pollutant reduction targets outlined in its MS4 permit. However, the numbers are subject to change in 2017 when the EPA Chesapeake Bay Program updates the Chesapeake Bay Model and issues the 2017 Mid-Point Assessment, which will reallocate pollutant loads and reductions to land uses across the Watershed. In addition, Virginia DEQ, responding to changes at the Bay Program, has modified its guidance to regulated MS4 permit holders on how to compute the specific reductions and the “credit” allocated to each type of practice. For instance, in 2015, DEQ modified crediting for street sweeping, stream restoration, and several other practices – all key practices that MS4 permit holders use to compute their pollutant reductions. It is anticipated that additional guidance and crediting modifications may occur in the coming years. While the City is currently on a sound trajectory for compliance with its 2023 and 2028 goals, it is anticipated that these goals may shift, as will the methods of compliance. This uncertainly makes it difficult at present to fully evaluate the program, its funding, and the rate of implementation. The WRPP-AC, with assistance from staff, plans to keep abreast of the regulatory framework and to evaluate program priorities and funding on an ongoing basis.

- Capital program implementation

City-Wide Water Resources Master Plan

The purpose of the Water Resources Master Plan is to identify, prioritize, and select Capital Improvement Projects to improve water quality and address drainage issues. The City contracted with AMEC Foster-Wheeler to develop the Master Plan.

The Advisory Committee has provided input to program staff regarding the weighting factors (e.g., cost, pollution reduction, visibility in the community, etc.) that the decision support tool uses to rank potential projects.

Stormwater BMPs

The only Stormwater BMP project completed in 2016 was the Charlottesville High School Stormwater Retrofit Project. This project was primarily funded by a grant and Environmental Sustainability Funds. The Stormwater Utility made a partial financial contribution.
Infrastructure rehabilitation, repair, and maintenance

Repair and rehabilitation of the 13 miles of City-owned clay and metal stormwater drains continues. By the end of CY2016, the City had lined 6.2 miles of pipe, replaced 1.3 miles of pipe and made 89 “point” repairs to the stormwater system. Charlottesville stormwater pipes are a complicated, comingled system, with two-thirds of the pipes on private land most of which are privately owned. The City cleans and flushes the pipes on a 5-7-year cycle and maintenance on the +/- 50 mile publicly owned system is ongoing, as needed.

Capital drainage projects

While the City is substantially in compliance of its TMDL MS4 permit requirements, there is much work to do on the existing stormwater conveyance infrastructure. Therefore, there is a current program emphasis on the stormwater conveyance rehabilitation program and capital drainage projects. As part of the Master Plan, drainage projects from a population of previously-identified drainage issues dating back to the late 1970s are being evaluated and prioritized. Given the comingled privately and publicly owned stormwater conveyance system, these projects are challenging and often require temporary and/or permanent agreements regarding access, ownership, and responsibility. Program staff work with the City Attorney’s office to navigate the more complex legal issues generated by the City’s comingled public/private stormwater conveyance system.

Conclusions

In general, the program implementation is going as expected. The utility fee has been through six billing cycles now and appears to be proceeding smoothly. Property owners are not responding to the credit program, most likely due to the high cost of implementing a practice and the modest reduction in the fee that would be generated. The incentives program continues to attract attention, though applications were significantly down in CY2016. Potentially a stewardship program, where property owners are recognized for their conservation efforts, would create more interest in implementation by property owners.

The City of Charlottesville’s Chesapeake Bay TMDL Action Plan was accepted by Virginia DEQ, putting the City substantially in compliance of all the requirements for the Chesapeake Bay TMDL through the next permit cycle ending in 2023 and on tract to meeting the final reduction goals for phosphorous and total suspended solids by 2028. However, regulatory uncertainty persists with the Chesapeake Bay TMDL Program. While the City’s action plan was approved by DEQ, the 2017 Mid-Point Assessment may change the reduction goals. There has been a recent emphasis on addressing challenges arising from a comingled public/private drainage system. The Master Plan, upon completion, will guide water quality and drainage improvement project implementation.