

**STORMWATER ADVISORY COMMITTEE (SWAC)**

Meeting #6 – Agenda  
February 6, 2018 @ 3:00 P.M.

CITY HALL  
ROOM 337  
200 WEST FIFTH STREET

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“Come with an open mind, a willingness to hear all opinions or ideas,  
and be a champion for sustainable stormwater management in Greenville.”

1. Call to Order
2. Introductions
3. Announcements
4. Public Comment Period
5. Approval of December 5 meeting minutes
6. Chairman’s Comments
7. Introduction to Level of Service (LOS)
  - a. General Categories of LOS
    - i. Program Management
    - ii. Operation and Maintenance
    - iii. Capital Improvement
  - b. Evaluating LOS
  - c. Ranking system “A” through “E”
  - d. LOS Evaluation of General Categories (need decisions from SWAC on the following)
    - i. Operation and Maintenance
    - ii. Capital Improvement Projects
    - iii. Program Management
8. Questions and comments
9. Closing remarks

**City of Greenville (COG)  
Stormwater Advisory Committee (SWAC) Meeting  
December 5, 2017 3:00 pm – 5:00 pm  
City Hall, Room 337**

**Advisory Committee Members Present:**

Tom Best	Donnie Brewer	Drake Brinkley
Michelle Clements	Jon Day	Don Edwards
Joni Torres	Beth Ward	Landon Weaver*

\*Attending for Bill Clark

**Staff & Consultants Present:**

Kevin Mulligan/COG	Daryl Norris/COG	Ronnie Donley/COG
Mark Senior/WK Dickson	Tom Murray/WK Dickson	Katie Cromwell/Raftelis
Inga Kennedy/PEQ	Marla Hill/PEQ	

1. Advisory Committee Chair Tom Best called the meeting to order and initiated introductions.
2. No public comments were registered.
3. The chair called for approval of the previous minutes. Corrections as follows:
  - Don Edwards, ~~Vice Chair~~, stated that downtown revitalization is...
  - Drake Brinkley, Vice Chair, ~~partial~~ commercial real estate attorney with ~~Warden Ward and Smith~~

With these corrections noted, the minutes were approved.

4. Chairman's Comments:

"After reading the minutes, I picked up on something that I wanted to share and get comments back. I think in terms of mitigating quantity of water, but the fees are really for quality of water more so than fixing the problems; that's the way I read the instructions and it kind of bothered me, but I understand. I went back to our book and read something I wanted to share with everybody. Entitled "Stormwater Management Programs," it says that the program is designed to effect water quality by controlling the level of pollutants in and the quantity of flow of stormwater. I guess that's how we take care of it, by getting the quantity of water. By doing so, we're protecting the quality as well."

Daryl Norris responded that Mr. Best was correct - quantity problems lead to quality problems, and that is how the City can justify helping with quantity problems.

Mr. Best inquired whether anyone had any questions about the quality/quantity issue, noting that the biggest issues he hears about result from quantity of water coming into houses or under houses, or on the streets. Hearing none, he invited the City staff to begin the presentation.

## 5. Presentation, Part 1

Daryl Norris began the presentation with an inventory of the Greenville stormwater system. The system currently comprises 237 miles of pipe; 17,000 drainage structures; just under 100 culverts; almost 3000 outfalls; and almost 70 miles of open ditches (referring to map provided). There are another 30-40 miles of ditches that are not maintained by the City either because they are not public waters, just private waters, back yard water, or the county drainage district deals with it through a previous agreement. There are even more miles of ditch in the ETJ.

The calculation of the stormwater fee was described next. The current utility rate is \$5.35 per ERU (2000 square feet of impervious); there are approximately 98,500 ERUs within the city. The airport is currently included in that number but will be exempted from the fee within the next two weeks, by state statute. The lost revenue is about \$100,000, so projected revenue for fiscal year 2018 at that rate is \$6.2 million.

Norris then outlined how these utility funds are roughly divided: about a third is spent on capital; about a quarter is operations; and then 40% is personnel, salary and benefits, etc.

Jon Day asked how capital is defined in this context. Daryl Norris explained that capital is actual, physical installments, improvements to the system and includes storm drains, flood control projects, etc. Capital is something that you have once you're spent the money.

Norris then displayed a chart of the breakdown between personnel and operating. Of the personnel and operations (65% of the total), 52% is maintenance through the Streets division, 25% is engineering, 2% administrative, 13% indirect costs, and 8% debt service, and about 1% for building and grounds.

The maintenance portion is what is spent on maintaining flow. The current level of service (LOS) is maintaining flow throughout the open channels - remove blockages, fallen trees, obstructions, sediment, whatever is stopping the water from flowing; inspecting and maintaining existing streambank projects – capital projects that the City has already done and that require continued maintenance. Also, culvert inspection – every time a stream or ditch goes under a road, there's a short bit of pipe under that road and the City is inspecting those and removing blockages at those crossings. The City's closed system includes services for pipe cleaning – flushing, using the flusher truck to wash dirt and debris out of the pipes; root cutting into the pipes; catch basin cleaning – sucking out dirt, leaves, debris and cleaning off the grates on the top. System repairs – repairing sinkholes and collapsed pipes, where you are not really replacing the aging pipe beyond its years, but patching the pipes in place. Street sweeping (self-explanatory), which helps to minimize the need for all the others. In Engineering, that percentage pays for permit requirements, the main things that the City is required to do and why they're allowed to charge a fee in the first place.

Other costs are public education and outreach, public participation and involvement such as the "Paint the Drain" program, the Illicit Discharge Detection and Elimination program, basically keeping people from putting things in the drain that shouldn't go down the drain. Construction site runoff, or erosion control. During construction, trying to minimize what comes off of the site, which is the function of the erosion control program. Post-construction runoff control is the BMPs, stormwater ponds, the things that are subject to annual inspection to make sure they're functioning both from a quality and quantity perspective. Pollution prevention/good housekeeping refers to City-owned facilities, ensuring that facilities are kept clean and don't contribute pollution. Engineering is responsible for these functions and also does the capital improvement programs, such as those identified in the Watershed Master Plans (WMPs). Engineering is also responsible for the continued update of those WMPs as new inventory is added and new projects are accomplished. Engineering manages the infrastructure projects themselves – planning, design, contracting those out to actually be installed, capital improvements, property acquisition as required to do a project such as putting in a stormwater pond. Sometimes the City does not own the property and needs an easement to get to where work needs to be done. Streambank stabilization is also a responsibility, with a \$200,000 dedicated fund. Engineering also manages the utility billing and policy, procedures and credit process. The other thing that sometimes gets forgotten about in stormwater management is floodplain management, and this is providing public education to folks in the floodplain – assistance to help them with FEMA applications and also plan reviews to make sure that their houses are built at the correct elevation and those kinds of scenarios.

Engineering Administration handles citizen inquiries, helps personnel management, and actual day-to-day billing activities. Buildings & Grounds cost is for the few City-owned stormwater ponds and BMPs that we have. The City has to maintain their own ponds as well. Indirect charges include legal, finance, city manager and contribution to HR, that kind of expense for being part of the larger organization. Interest on debt service represents ongoing interest paid towards a general obligation bond from 2005.

Capital replacement needs – Currently there are 237 miles of pipe and 17,000 structures. Those projects already identified in the master plan as capital improvement projects were removed; therefore, these are secondary projects for replacing pipes and structures that have a 40-year life span. The City should expect to have to replace all of them within a 40-year span, which adds up to \$230 million over 40 years for the current LOS and EOS, for the size and number of pipes today, without extending into territory, private or ETJ.

Mr. Day asked whether these numbers take into account a major disaster like a hurricane? Mr. Norris responded that these figures represent the replacement for a pipe living its functional life and expiring. That represents the normal cycle of what it would cost to replace the pipes as they wear out naturally.

Capital Improvement Needs refers to those things identified in the master plan that need to be done to improve the system's operation. These are flood control projects, both primary and secondary projects, streambank stabilizations, water quality projects, and things that have been identified as needed to improve the system overall. The cost of those improvements is \$150-\$170 million, over a 25-year time span.

Beth Ward inquired whether pipes needing replacement are automatically upsized. Mr. Norris explained that if they need to be enlarged and there is an opportunity to do so, the City would enlarge the pipes. The master plan identifies that, of the \$270 million worth of total pipe replacement, about \$40 million would be part of an upsizing project. He further explained that upsizing the pipes is only one piece of it – there has to be a place for that water to go and be captured, which brings in those larger flood control structures that are shown. Sometimes a pipe can't be upsized on replacement because, for example, it would require a \$30 million pond to handle the additional flow. Drake Brinkley noted that when pipe is added, you're adding new flow control measures. Presumably there will be more manpower needed. He asked whether these figures include cost for additional pipe maintenance and manpower. Mr. Mulligan explained that these were capital installation costs, not the ongoing maintenance of the additional system being built.

Mr. Norris continued with the description of functional areas within the Stormwater Division.

Engineering operational needs – What is needed above what is currently available in order to maintain the LOS and EOS that are essentially already committed to. To be able to do the things that the City is already trying to do, this is actually where the needs are from an engineering operational standpoint. This is the cost to fully inventory and assess the pipe system.

New infrastructure inspection – This cost is for inspectors who inspect new construction as the pipes are going in to ensure we get 40 years out of those pipes. Landon Weaver asked how many employees were needed for inspection and whether they are full time. Norris responded that this estimate is for four full-time inspectors. The Stormwater Division calculated the cost in the last year based on the City's acceptance of approximately 10,000 feet of storm drain within the last year.

Asset management – This is the cost to look at those inventories and prioritize and contract out the replacement of those pipes, plus the operating expense needed to do those replacements.

Easement Acquisition – This cost is somewhat of an unknown in that the City can't know in advance what has to be acquired and how much it's going to cost to get into an area. Mr. Norris noted that there are a number of things shown on the map - streams and ditches that are on the list for City maintenance, but these may not necessarily mean that maintenance has actually been performed on every foot of a stream because of lack of access. Ronnie Donley further explained that lack of access is a major problem and expense. He also noted that the definition of maintenance as understood by citizens may be different from the City's definition. The Stormwater Division defines maintenance as "maintaining flow." Mr. Mulligan noted that if personnel can't get into an area, or it has to be walked using hand machines as opposed to larger pieces of equipment, that is going to greatly reduce the number of times a year they can get to it.

Don Edwards inquired about whether the figures shown are the absolute amount needed or whether they were being presented for the group to help the City think through areas where they could compromise in order to manage the whole system properly. Mr. Norris explained that the figures shown represent what it would cost to allow the City to move from a responsive/reactive approach to a proactive, asset management approach where we know we have something with a steadily depreciating lifespan that will eventually need to be replaced. This will get the City out of a “pay me now or pay me later” stance. Waiting until the pipes fail means a cost of \$230 million dollars in one year, whereas a proactive approach means going through, assessing the pipes, replacing them on a regular basis, on a cycle that is planned out so that the City doesn’t have to be so reactionary in responding or face having roads collapse like Third Street.

Mr. Mulligan further expounded on the cost and approach issue, noting that the group has seen some bigger numbers, larger than \$10 million, indicating \$15-16 million each year or a \$10 million deficit each year. The important thing is that this is based on a 40-year life. If a pipe lasts 50 years, the need would be less; if some of the pipes are showing a 10-year life, then that speaks to the intense need for the inspection of pipes going in the ground. That 40-year span is the goal. Some of the pipes are not there yet, and some of them are beyond that. The second part of that is how do you get to that big number? There are always some areas that can be tweaked, but what we are presenting is “this is the pipe, this is the life of it, and this is what it’s going to cost to be proactive.” It’s what Public Works has done with roads, sanitation and solid waste collections. We want to institutionalize that approach, and that’s the whole point of the WMP – now we have a whole plan before us; then where do we need to be? What does our existing EOS cost? Do we want to increase it? What’s that cost? Or do we want to decrease it to what we raise from utility fees? These are the questions this group will entertain and hopefully answer. Mr. Norris added that it is understandable the group is struggling with making decisions not knowing exact costs, but the City is trying to give as clear a picture as possible of current EOS and LOS and the associated costs.

Mr. Weaver asked whether the information shown represented a “Cadillac” system or a “Chevy pick-up truck” system. Mr. Norris explained that it represented what is needed to properly maintain the system the City has now. Ms. Ward asked when the current maintenance plan went into effect, i.e., when did the actual system assessment begin? Mr. Mulligan explained that the City has always had crews to maintain to some level the pipes, the ditches and the structures, but as new pipes go in, as the city expands, the level of service should expand. The purpose of the WMP is to get out of the reactive stage and into the proactive stage. So now we have an inventory of all of our pipes, all of our structures, our ditches, which way they flow, how big they are, what material they’re made of, etc. The WMPs have been completed. Greenville is one of few cities in North Carolina that have a WMP. Most cities don’t know the full extent of their issues and problems. Greenville is one of the only ones in NC that has identified the full scope of the problems that this City faces and for good reason, having seen what Hurricanes Matthew, Irene, etc. and other storms have done. He noted that when he got to Greenville, streets like 14<sup>th</sup>, Deck, and Arlington were flooding with every flashy storm – 15-20 times per summer. Ronnie and his crew are proactively maintaining a lot of the Greens Mill Run, Meeting House Branch – areas where we do not flood. It is not always about needing a bigger pipe there. It’s maintenance, and they’ve done a fantastic job but there are not enough of them to maintain it to the level that citizens want.

Ms. Ward asked whether the City was likely to reach the goal, given how much money was needed. Mr. Weaver added that a big concern is also what do we get for our money? When you spend your money, what kind of percentage impact do you get overall for your investment? Is it worth it? Mr. Norris responded that the Maintenance and Operational needs are to provide that proactive maintenance on the current open channel and the pipe system, to be able to fully access all of the 68 miles of streams and ditches that have currently been identified for the City to maintain. With the appropriate number of crews to do that and tree removal, there’s about a million dollars additional in maintenance operating expenses. To fully, properly and proactively maintain the pipe system so that there is not a backlog of basins and pipes to clean and roots to cut out will cost another million annually. These are annual operational needs. And then that brings us to the summary of money we need, the big numbers. The maintenance cost (these are annual): \$5.8 million per year; Capital cost of \$6.8 million per year – again, these are the improvements over a 25-year span; the operational cost for existing plus those needs for engineering and maintenance, that adds up to \$16.7 million to proactively maintain the system we have and make those improvements identified in the WMP over the next 25 years.

Mr. Best asked whether that figure represented all of Public Works or just the portion dealing with stormwater. Mr. Norris responded that this is just stormwater. Mr. Best then inquired whether funds were received from anywhere else (such as property taxes) or if this system is run 100% off the fees alone. Mr. Mulligan explained that there are

no other funds coming in. As an enterprise fund, the stormwater utility can only use the funds it receives through the fees paid.

Mr. Norris pointed to the last line of the cost chart and noted it is the annual utility revenue of \$6.2 million, which means there is a \$10.5 million annual deficit to be able to be proactive with the current EOS and LOS. Mr. Edwards asked whether the \$6.8 million is based on the total of \$250 million over 40 years. Mr. Norris explained that the \$6.8 million is over 25 years and reflects the capital improvement needs.

Mr. Best inquired if the objective as a city is to get to the \$16 million per year. Mr. Mulligan responded that the \$16.7 million is what it would take to get to, in a 25-year timeframe, all of the projects that were identified in the WMP, but noted there are some flexibilities there. Michelle Clement asked whether growth or inflation were included in the calculation. Mr. Norris responded that they were not; also, the numbers don't reflect the addition of new ratepayers. Mr. Weaver asked how many additional employees would be needed in the proactive scenario. Mr. Norris responded that he would supply that number to the group in another meeting if necessary to get into the specific details.

Ms. Ward asked whether the large apartment buildings and big student facilities pay a utility bill. Mr. Norris responded that they do, and that their bills are based on their total impervious surface divided by the number of units in the building. If that was done throughout the City, \$16.7 million in revenue a year with approximately 98,500 ERUs in the City – that would be a projected utility rate of \$14.13 per ERU. In a Tier 2 home – any home with between 2000-4000 sf of impervious (which is the average), a Tier 2 home would pay about \$28.26 per month in stormwater utility fees. That would be a 264% increase over today's rate. Mr. Mulligan further explained that that is at the current LOS, but there have been discussions about whether the City should maintain what's in the ETJ, as well as private drainage. If so, the cost could go from \$16.7 million – the full extent of how many miles of private pipe and private ditch is unknown – to a conservative estimate of about \$25 million per year; based on 40,000 premises, that would put the rate in the range of \$500-\$600 per year.

Ms. Kennedy noted that there was limited time left for the presentation and suggested that the chair consider whether to continue the cost discussion, since over the last couple of meetings the issue of finance and cost had come up again and again. She suggested that it would be important to make certain everyone is clear on what they had heard before moving on to another topic, given that there are decisions to be made. The chair agreed to continue the discussion for a brief time.

Mr. Edwards offered a hypothetical of a 1000-2000 sf house on a 10,000-sf lot and asked the City to elaborate a little on what that would mean for the typical homeowner. He noted it would help the group to understand the effect of that normal Greenville situation. Mr. Norris explained that an ERU is the equivalent of 2,000 square foot of impervious area on the ground - that means a rooftop, driveway, gravel, garage, perhaps a sidewalk that's on the property. These are the impervious surfaces that go into the formula. So, if you have a 2000 square foot house and you have 2,000 square foot of driveway and then you've got a 100 foot of sidewalk leading to your house, you've got 4,100 square foot of impervious area. That's three ERUs (calculations are rounded up). Lot size has nothing to do with it, just the impervious surface on the lot. At \$5.35 per ERU, the bill would be \$16.05 per month. Residential properties are capped at four ERUs by ordinance. Commercial properties and multi-family properties are not. Most of them have well above that amount; if they had 200,000 sf of impervious, they would have 100 ERUs. They'd be paying \$535 per month in stormwater fees, and there are those that do. The airport – just the runways and taxiways - make up about \$100,000 per year in stormwater fees. Places like ECU pay lots into the stormwater fund. But the average home of 2 ERUs is paying about \$10.70 per month in stormwater fees. So, a 2,500-sf house may have a driveway, patio and roof, but the square footage of the house is not so germane. It's the square footage of the roof, the patio and the driveway that add up to the 2000-4000 used to calculate the ERUs. The interior part of it is not part of the calculation.

Mr. Norris then offered to answer any further cost questions in an additional meeting with staff or to answer questions via e-mail. He stated that the mission of the group is to help the City answer these questions of where and what do we need as far as extended service, what LOS do we need, prioritizing regulation, development, BMP maintenance, capital projects - prioritizing those and then discussing how to structure the revenue to pay for all of it. Mr. Mulligan cautioned the board to remember that, while the smaller numbers could be tweaked, the big numbers are in pipe replacement.



**6. Presentation, Part 2**

Mark Senior began the second part of the presentation by observing that all the discussions on EOS, LOS or any other topic, generally came back to cost. He noted that the group learned today that the stormwater utility is lacking in funding to meet the LOS that is called for in the WMPs and that the staff feels is adequate. That should help to put into perspective some of the decisions the City is looking for the group to make, but it's important not to try and couch the decisions based on the fact that Greenville is hurting for revenue now. Instead, it would be helpful to think of it in terms of what we really should be doing, even if it will cost more; what we could do later or on a smaller scale; and things that are extravagances that can be eliminated or done later. Therefore, part of the decision making will be identifying what's important; what needs to be prioritized; what can be pushed back or scaled back until later, and still come up with some reasonable revenue estimate. One example of that is the 25-year CIP; it was determined that some parts of it could be accelerated; some projects could be knocked out in 10 years or pushed out for 30-40 years; all projects wouldn't need to be done within that time span. Ultimately, that reduces the utility fee. The rest of the presentation will be about tackling the EOS; if time permits, LOS – the work described by Mr. Norris – would be discussed further.

Mr. Senior suggested that it would be useful for the SWAC to use a 3- or 5-point evaluation criteria for EOS; for example: 1 = critical; have to do; 2 = should do, if funding can be found; 3 = not critical; "pie in the sky." The SWAC agreed that a 3-point system would be adequate.

Mr. Brinkley asked whether money constraints should be considered in evaluation, and Mr. Senior responded that this should remain in the back of their minds but if it is something that really needs to be done, you would vote to go ahead and do that. The idea is to get the information back to City Council so that they can make decisions.

First topic: Drainage outside of the City limits. Currently the city does not maintain on a regular basis but will do on an exceptional basis. The City does accept drainage systems outside once they are annexed. The group should discuss when it is appropriate to maintain outside the city limits. Most cities do not; it will increase budget needs but there may be good reasons to do it.

The group should perhaps consider maintenance outside of the city limits if the City affects it or if it affects the City. Mr. Best confirmed that people outside the city limits could not be charged the utility fee. Mr. Senior asked for opinions or a vote based on the options listed:

- Maintain only within City limits
- Provide maintenance outside the City limits on a case-by-case basis (example: in emergencies or at places where streams cross jurisdictions)

Mr. Donley offered another scenario for the case-by-case option: a limited amount of work in a very specific drainage situation, such as near a new subdivision; the goal is to restore and maintain the free flow of water, so the City might do the limited work needed to ensure that free flow but is not legally responsible for the ditch.

The group chose the case-by-case approach for determining when the City will work outside the city limits, particularly when the results of not doing so might be catastrophic. Mr. Senior noted that it is important for citizens to understand the system, so the goal is to eliminate as much gray area as possible for Stormwater staff. Mr. Day wanted to know if the County would be involved in the decision-making; Mr. Mulligan responded that they lack funding and personnel mechanisms currently.

Ms. Ward suggested that when wording the options, it is important to convey that there is flexibility; sometimes agencies can partner with each other. Mr. Best stated that he would like to see Soil & Water help bridge the gap in those "gray areas" outside the city limits, within the ETJ. The DOT and County might also be able to play a role in that function. Mr. Best also noted that some private owners indicated they might choose not to have work done in their ditches if they have to pay for it. Mr. Senior noted that the municipality has the authority (riparian rights) to maintain drainage so that they are able to work where necessary to prevent, for example, flooding from one property onto another.

Ms. Clement commented that if people in the ETJ are not contributing to the stormwater fund, it's not clear how stormwater funds are used to pay for the improvement; however, they may be draining through the city limits so in those cases, perhaps the option should be that the City will maintain only within city limits except for drainage basins that drain through the city limits. She noted that developers are required to design their facilities to city requirements but wondered whether the City is responsible for inspecting those facilities. Mr. Norris confirmed that the City does inspect them, but they are required to do their own maintenance via an operation and maintenance agreement and easement when their plan is approved. New development, even within the ETJ, must submit plans to the City for review, as well as their stormwater controls. The City inspects annually, but does not maintain; these are primarily BMPs such as ponds. They have to maintain their own BMPs but cannot be forced to maintain their ditches. This plan review service is provided even though the property owners do not pay stormwater fees. There is currently not even a plan review fee.

Ms. Torres suggested that the language be changed to "maintain within the city limits, but address as needed outside the City limits." Mr. Edwards offered the phrase "unless the City determines it is within the City's best interest to address outside the city limits." Ms. Ward suggested that the City might want to consider an application process. Mr. Day added that those who pay the \$6.8 million should derive some benefit from any work outside the city limits. Ms. Torres added that although the wording does not need to be rigid, it does need to impose realistic limits. At the same time, there are issues that happen to properties where the people could be on the receiving end of something preventable. Ms. Torres also asked for clarification regarding who makes the rules, and whether policy change might be needed to allow cost sharing or some other mechanism. Mr. Norris explained that state statute dictates how and where the City can charge the utility fee right now but that a different program such as a cost sharing arrangement would be regulated differently. Ms. Torres suggested that the cost sharing should be considered when remediation is being done that's very costly. Ms. Clement added that there should be consideration of the public vs. private aspect when determining the case by case scenario. Mr. Best stated that it would be good to have a group working across boundaries to get the job done – where there are blockages and problems – but not for ongoing, constant maintenance. The City should maintain what's inside the city, and hopefully the County can eventually maintain what is in the County.

Mr. Norris asked for clarification on an earlier point – in the case-by-case basis scenario, the City should go out and provide assistance or solve the problem if it is of benefit to the City, not when it's a benefit to the property owner. They may have a problem that needs solving but that in itself is not the justification for us to go outside of the city limits to spend money and time. The group concurred that that would be the consensus. Ms. Ward suggested that the concept of an emergency working group, with representatives from various agencies, could be included as an option, as a way to address problems outside the city limits that don't meet that criteria. It would also help homeowners understand who to call when they have a problem.

Mr. Senior summarized the discussion and consensus, with some changes in the wording. The team will develop recommendations on the EOS and the approach to properties outside the City limits that are not addressed under the EOS.

The discussion then turned to drainage on private property. Mr. Senior noted that historically, cities did not maintain drainage on private property but stopped at the right-of-way. Some cities are moving toward some level of maintenance on private property based on ability of residents to pay. The City's current policy is that they do maintain on private property in certain circumstances in certain specific instances. Should that be modified? One option is to take over, as Charlotte did, maintenance of all systems whether public or private. How does the group feel about maintaining on private property? It was noted that there is no complete inventory of private property structures. Mr. Norris recommended that some private property should be included if it meets certain standards. He discussed scenarios where water drains from the property onto the road and vice versa or where problems such as erosion create problems that a property owner might not be able to handle. It was noted that sometimes homeowner associations can deal with some of the problems. Mr. Brinkley noted that there can't be a blanket decision to take care of private drainage, especially without understanding the incremental cost. Mr. Weaver also suggested that policies should also be created that reflect the issues created by the topography of the area. The group agreed that the City should continue the current policy of not going on private property unless it's a catastrophic emergency or unless the City can determine that the problem is contributing to problems upstream or downstream. Ms. Torres added that, if public water is going to private land and it's causing that private land to



deteriorate, it should not be the responsibility of the landowner to bear the burden of that public water coming to their property. Ms. Ward asked about the example of large developments like shopping centers that cause flooding because of inadequate BMPs. Current policy is that the City addresses public water draining from or through the right-of-way. Between the right-of-way and the property, the responsibility would be the property owner's as the benefit is to the property owner. Runoff from publicly-owned property is the responsibility of the City. Mr. Norris suggested two scenarios be voted on: (1) If a pipe carrying public water on private property, should the City maintain it? Consensus was that the City should. (2) A pipe draining water from private property into the City system? Consensus was that there are situations where the City should maintain, especially if it's within the city limit. There would need to be clarification over whether there is ongoing maintenance or just assistance because there is flooding, for example, repair of a sinkhole or blockage removal. If the pipe failed on the private property, the City would not replace it. The consensus was to continue current policy.

The next issue discussed was whether Stormwater Division should provide services like leaf collection. Mr. Mulligan stated that this service is covered by Solid Waste. Ms. Torres noted that there should be collection and composting. The consensus was to continue current policy of covering leaf collection in the Solid Waste division.

The final issue was whether the City should maintain private stormwater controls (i.e., BMPs). The group agreed that the City should not maintain those. Mr. Norris added the caveat that there are many located in residential areas where an HOA is responsible. So, for example, if there is a subdivision with 200 homes and in the back, there's a stormwater pond that had to be put in in order for that subdivision to be built, who should pay for it. The City has found it is difficult to get compliance on these ponds because the HOAs lack the money or the knowledge. Per the regulations, that pond has to be maintained. The only people who fund the maintenance of that are the 200 residents in that community so if they are not properly paying their dues and that pond fails and has to be rebuilt, the HOA may not have the means to pay the \$30,000 bill. Mr. Senior talked about how other cities manage this issue with subsidies or escrow programs. Money is channeled into those funds, and that pays for catastrophic events.

Ms. Ward asked about ponds in certain developments like shopping centers. Mr. Norris indicated that the City does not have operation and maintenance agreements with those. There may be opportunities to add agreements if they renovate or otherwise change the property. Other scenarios were discussed, and the consensus was to adjourn the meeting and revisit those specific exceptions later.