

Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, January 29, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Dr. Craig Allan
Nancy Carter
Roger Coates
Carrie Cook
Nate Doolittle
Paisley Gordon, Jr.
Joe Padilla
Sam Perkins
David Robinson
Rick Roti
Eric Spengler
Ken Szymanski
Dr. Jy Wu

ABSENCE: Voting Member

None

ATTENDANCE: Alternates

Steve Wilson

ATTENDANCE: Public Guests

Rob Nanfelt
Ronald Ross

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock, Speaker
Marc Recktenwald, Speaker
Tom Ferguson
Mike MacIntyre
Tim Richards
Nikki Trainham
Karen Weatherly
Todd DeLong

I. Introduction – Daryl Hammock

Each voting member was presented with a notebook, which included the first agenda, a guidance document, a map, a copy of the section of the ordinance they will be discussing and a list of Task Force members. Mr. Hammock opened the meeting.

II. Ice Breaker – Marc Recktenwald

Mr. Recktenwald led the Task Force in introductions and an ice breaker to help members know more about each other.

III. Process, Rules, and Roles ([Presentation available](#)) – Rusty Rozzelle

Mr. Rozzelle went over the following:

A. Roles

- i. Voting Member – Fulfill City Council’s official charge and vote
- ii. Staff – Support task force and do not vote
- iii. Facilitator – Guidance and support

B. Deliverable – Recommendation will go to the Environment Committee for consideration and proposed recommendation to city council and will be one of the following

- i. Consensus with staff agreement
- ii. Consensus without staff agreement
- iii. Majority and minority recommendations

C. Process – (See Presentation link above)

Process is a draft

D. Ground Rules – (See Presentation link above)

Ground Rules are a draft and official rules will be voted on next meeting

IV. What is next? – Daryl Hammock

Members were asked what they would like more information on in upcoming meetings and shown examples, which included:

- A. More information on catch basin inserts
- B. Examples on when the fee was necessary and allowed

- C. Current surface water conditions and pollutants
- D. Applicable clean water act regulations, state laws
- E. Background of the original Post-Construction Stormwater Ordinance
- F. History of the City mitigation fee program

Then the members were asked what information they would like presented in future meetings. Responses included:

- A. Detailed case studies
 - B. Specific projects where the mitigation fee has been used
 - C. List of other municipalities that have a mitigation fee and for how long
 - D. Introduction to the Post-Construction Stormwater Ordinance - its provisions, why they are there, and the intended impacts of those provisions
 - E. What is the overall goal toward cleaning our streams; what is the City's plan and is there a timeline for that plan?
 - F. Catch basin insert information; what onsite technology is viable for quantity and quality control?
- V. Closing and Adjournment – Rusty Rozzelle

The Task Force reached consensus that water quality is important. There being no further business, Rusty Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, February 12, 2015 at 4:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

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Steve Wilson

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Ken Szymanski
Dr. Jy Wu

ATTENDANCE: Alternates

Bryan Holladay
Joe Padilla

ATTENDANCE: Public Guest

None

ATTENDANCE: City & County Staff

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Daryl Hammock, Speaker
Marc Recktenwald
Hyong Yi
Tom Ferguson
Jordan Miller
Karen Weatherly
Nikki Trainham
Todd DeLong

HANDOUTS:

Charlotte Post-Construction Stormwater Ordinance
Question and Information Request (Updated-2/11/2015)
Copy of PowerPoint covering Item IV of the agenda
Updated Contact List

I. Introduction – Rusty Rozzelle

Mr. Rozzelle opened the meeting. New members were introduced.

II. Finalization of Process and Guidelines – Rusty Rozzelle

Some members expressed concern that the final recommendation to the City Council would result in a permanent mitigation fee option in the extended area. Daryl stated that the charge did include a request for a permanent solution but that with any rule or ordinance circumstances can change that may require modification of the ordinance. Daryl stated that it is possible that the Task Force could recommend that the mitigation fee not be continued.

The proposed process and ground rules were approved with a unanimous vote from all attending members. The approved versions of the process and ground rules are available on the website as attachments to the meetings minutes for January 29, 2015.

III. Information Request for Future Meetings – Daryl Hammock

Daryl asked for additional information request. Responses included:

- A. Where are the monitoring structures?
- B. Where do pollutants mostly come from?
- C. What are the requirements contained in the Clean Water Act?
- D. What are the impacts to the floodplain?

These questions were addressed by Rusty and Daryl at a high level and will be addressed in greater detail at the February 26 meeting.

IV. Background (Presentation Available on Website) – Daryl Hammock

As requested, Mr. Hammock presented information pertaining to runoff basics, policies and regulations, and introduced the post construction stormwater ordinance.

Questions from the stakeholders included:

- A. How often are buffers mowed, and what does the City do to educate citizens about the importance of buffers?
- B. Are current stormwater ordinances working to stop degradation?
- C. What percentage of the Stormwater budget goes to the Water Quality Program?
- D. Are there watershed protection rules for the lakes
- E. If development stopped in Charlotte, would the impaired waters in Charlotte become unimpaired?
- F. How is water quality trending in Charlotte?
- G. There were many questions about the monitoring program.
- H. How does Charlotte's Post-Construction Stormwater Ordinance compare to other cities?
- I. What is the source of watershed restoration money?
- J. There were many questions about the goals of and timeline for watershed restoration.
- K. Who maintains stormwater control measures?
- L. How often is the ordinance used in relation to all projects in the subject areas and throughout the city?

The questions were answered by Daryl and Rusty. The questions regarding the monitoring program, trend analysis, watershed restoration goals and timeline, comparison to other cities, and use of the fee option will be covered in detail in future meetings.

V. Closing and Adjournment – Rusty Rozzelle

The Task Force members were asked to review Questions and Information Document and verify that the first two bullets were covered adequately. This document will be made available on the website. There being no further business, Rusty Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, February 26, 2015 at 4:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

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ABSENCE: Voting Members

Carrie Cook
Sam Perkins

ATTENDANCE: Alternates

Rick Gaskins
Joe Padilla

ATTENDANCE: Public Guest

None

ATTENDANCE: City & County Staff

Rusty Rozzelle, Facilitator
Daryl Hammock, Speaker
Kyle Hall, Speaker
Tom Ferguson
Mike MacIntyre
Karen Weatherly
Nikki Trainham

HANDOUTS:

January 29, 2015 Draft Minutes
February 12, 2015 Draft Minutes
Testing for Agreement Draft Survey
Copy of Daryl Hammocks PowerPoint
Copy of Kyle Halls PowerPoint covering Water Quality Monitoring Program

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting. New members were introduced. Members were asked for concerns or recommendations for changes to the January 29th and February 12th minutes. A concern was expressed that the February 12th minutes did not reflect Daryl's statement that the Task Force could recommend that the mitigation fee not be continued. It was agreed to change the wording to reflect this statement.

II. Survey – Rusty Rozzelle

Mr. Rozzelle proposed that an electronic survey be completed by Task Force members towards the end of the information period. City staff will compile the results for use in the development of alternatives for deliberation by the Task Force. The survey will only ask questions pertaining to the charge. The direct results will not be presented to task force members. All alternatives presented for deliberation will include pros and cons as well as staff's position. Pros and cons will be developed using best available information from an unbiased perspective. Several questions to clarify the process were asked during the discussion.

Going forward all additional information members need to respond to survey questions will be provided.. In addition, the survey asks Task Force members to provide any specific information requests that may assist them in reaching consensus. Members were asked to review the draft survey and send comments and concerns to Rusty Rozzelle by March 6, 2015. Members will be presented with a 2nd draft of the survey on Monday, March 9th for consideration during the March 12th meeting.

III. Task Force Questions – Daryl Hammock

Mr. Hammock addressed questions and requests he received since the last meeting.

Daryl described newly posted web links regarding the 2007 cost analysis and clarified information about the case studies in it, particularly the case study labeled "Urban Infill" which is most closely associated with this process. A graph

showing impervious of streets, commercial, and residential properties was shared with 27% of all impervious being associated with streets and public sidewalks. The overall City is 26% impervious, not counting the surfaces of ponds and lakes. Daryl showed a map estimating the number of stream miles to be 942 within the City's Planning Jurisdiction.

IV. State of Our Streams – Kyle Hall

Mr. Hall presented an overview of the CMSWS Monitoring program and sample graphs of primary pollutants (suspended sediment, metals and bacteria) were used to describe stream health and the generally flat nature of most trends seen in the raw data. Human and atmospheric sources of primary pollutants were briefly discussed and the effectiveness of current stormwater ordinances was highlighted using population growth, water quality trends and research on stormwater control measure effectiveness.

Questions from the stakeholders included:

- A. What are the most significant pollutants?
Suspended sediment (often represented by Turbidity or cloudy water), metals, and bacteria are the primary pollutants that are causing streams to be listed as impaired.
- B. Why is turbidity not getting worse?
Current ordinances target suspended sediment as new development and redevelopment occurs.
- C. Is data correlated to percent impervious or percent commercial development?
There are correlations to impervious cover on a national scale but not specifically to our area.
- D. What correlations are done?
Turbidity and Suspended solids have been shown to be correlated. Many other parameters have been analyzed but strong correlations have not been shown.
- E. Do watersheds with more BMPs have better water quality?
Without question, control measures reduce pollutants of concern and make watersheds cleaner. The number of control measures has not reached a mass high enough to show up at a 10, 20, 30 square mile level. But in our pilot studies, for example, at the one square mile or at the outlet of a control measure, the water is cleaner.
- F. Is there a systematic way of measuring water volume?
Each watershed monitoring location has a USGS stream gage that monitors the stream stage (height) and flow. From this we can calculate a volume over time.
- G. Does porous pavement work in North Carolina with the clay?

Porous pavement has been monitored in Charlotte and the Wilmore Walk Study was very successful. There was a significant amount of excavation below the previous pavement at this site.

The questions were answered by Kyle, Daryl, and Rusty.

V. Restoration Programs – Daryl Hammock

Daryl presented information in response to questions associated with watershed restoration goals and timelines. He described the City's stream restoration, pond rehabilitation, and pollution control programs, all aimed at recovering watersheds to become 'swimmable and fishable'. Examples describing the benefits and costs associated with these programs were given and the cost-effectiveness of the programs were contrasted. Cumulatively 51 ponds and pollution control projects have been completed, improving runoff from 1.25 square miles of the city's 80 square miles of impervious surfaces. 15 miles of the City's ultimate 942 stream miles have been restored. Projects with the highest benefit-cost characteristics are carefully selected for construction. This screening process often results in regional control measures such as ponds, wetlands, and other basins that serve a large area. Smaller on-site controls, while very effective, eat away at scarce public dollars when compared to the benefits, and do not provide habitat benefits for animals and plants.

In terms of costs, Daryl explained the estimated cost to restore 1/3 of stream miles is \$0.8 Billion. The estimated cost to mitigate most of the excess pollutants in runoff to a sustainable point is roughly \$2.4 Billion. This expense may never materialize and would only be achieved after decades, even centuries of investment. This reality shapes the rigorous selection of projects and management techniques.

VI. Closing and Adjournment – Rusty Rozzelle

Prior to the next meeting, the Task Force members were asked to review the 2nd draft of the survey and meeting minutes for February 26th that will be made available on the website by March 9th. Rusty proposed and Task Force members agreed to hold future meetings from 4:30 to 6:30. There being no further business, Rusty Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, March 12, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

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David Robinson

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Steve Copulsky
Marc Houle

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Rob Nanfelt

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Rusty Rozzelle, Facilitator
Daryl Hammock, Speaker
Mike MacIntyre, Speaker
Jordan Miller
Tom Ferguson
Karen Weatherly
Nikki Trainham
Tim Richards
Marc Recktenwald

HANDOUTS:

Copy of Mike MacIntyre's Task Force Questions Presentation

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Members introduced themselves. Changes to meeting minutes from February 12th were approved with no further concerns. Meeting minutes from February 26th were approved with no concerns.

II. Survey – Rusty Rozzelle

Mr. Rozzelle explained the changes to the survey. Any other recommended changes can still be emailed to Rusty. A task force member asked if the group could be provided with a tally of the answers without showing individual answers. Rusty emphasized that the group should focus on the alternatives provided, but with no objection from members agreed that a tally of answers will be provided.

Several questions regarding clarification of wording and suggestions for changes of wording were discussed. This included clarification on what “may be waived by the stormwater administrator” meant. Mike MacIntyre said he would address this in his presentation. A member suggested that the words “economic impact” in question 2-d of the survey be changed to “financial impact.” After some discussion on the definition of each word the team determined that two separate questions would be asked with “financial” and “economic.” A task force member also asked city members to define “high quality waters.” Daryl Hammock and Rusty said it is hard to define but may include good benthic community or good riparian area.

There were no further concerns or questions regarding the survey. Members can email further questions and recommendations to Rusty by Friday March 20th. Rusty will revise the draft and it will be available to task force members before the March 26th meeting.

III. Task Force Questions – Mike MacIntyre

Mr. MacIntyre presented information to address questions and requests received from task force members from previous meetings. Mike's presentation addressed questions related to the definition of redevelopment, current requirements, fee structure, quantity of projects using the fee, the reasoning behind the fee, maintenance information and other places that currently have a fee as well.

During Mike's presentation he received the following questions, Mike, Daryl, Rusty, or other task force members provided the given answers.

- A. We call it redevelopment even though 20,000 square feet can be added? Further details about the 20,000 square feet of additional impervious area will be explained in a later meeting.
- B. How are large parking lots without trees addressed?
Parking lots without trees were built before the current tree ordinance was in place. These parking lots will eventually be redeveloped and tree plantings will be required at that time, and in many cases stormwater controls are required. For new development, natural area, detention, pollutant removal and buffers are required.
- C. Who defines the business corridor geography?
Neighborhood and Business Services with council approval
- D. Are the requirements that are listed for development, transit station [and distressed business corridor], and redevelopment the same?
Yes the requirements listed are the same for all except for the 25 year storm detention requirement for development, because new development causes more impact.
- E. Has "green" area of the map increased?
It has mostly stayed the same, but it has grown recently to include more area between South Blvd. and I-77
- F. What is the pollutant removal target?
85% of total suspended solids is the state requirement.
- G. As the City keeps developing, volumes and velocities will increase. Will these be addressed?
Development requirements protect against the increase in stormwater runoff volume and velocity. Redevelopment requirements restore watersheds by addressing problems caused by existing impervious coverage. For redevelopment, most existing sites have no controls, and, when redeveloped, controls are added to improve volume and velocity problems. The tree ordinance also requires trees, which can reduce volume and velocities by removing impervious coverage.
- H. Is there a cap on the amount of redevelopment?
No there is not a cap on size of redevelopment.
- I. Where are the City's projects in relation to the impacts?
Map to be provided at a later meeting.
- J. Map requested of projects that did not pay fee.
Map to be provided at a later meeting.
- K. Do sites have to provide either detention or pollutant removal and can pay a fee for the other one? Can't a site pay fee for both under redevelopment?

If “stars align” and conditions are right, a fee can be paid for both. A decision tree was presented in the meeting showing how it is decided if a fee may be paid for detention or not.

- L. What makes the “stars align” to pay fee for both quality and quantity?
It is determined on a case by case basis, downstream issues analyzed, flooding, etc. based on the decision tree
- M. What is the higher rate for redevelopment when a fee is paid for both pollutant removal and detention?
\$60,000 for the first acre and \$90,000 for each additional acre of built upon area for redevelopment sites.
- N. How many acres were developed total?
We will provide the total amount of acreage of development and redevelopment at a future meeting.
- O. Why do people choose to pay the fee?
The reasons vary depending on the site. Many times there is not enough room on the site to provide adequate detention. For the redevelopment to be worth it, the fee may be cheaper or site conditions may make it difficult.
- P. Are the 258 projects in graphs in presentation just redevelopment or all development?
The figure includes both development and redevelopment. It does exclude any individual single family projects that do not require a permit from City Land Development.
- Q. Have the types of controls that are used stayed consistent?
Sand filters have stayed preferable because they meet 85% removal without the need for any additional control measures. However, the choice depends on the size and characteristics of the site.
- R. Who pays maintenance cost?
The owner of a stormwater control measure must have it inspected every year and submit a report to the city. Inspectors visit the sites, and if inspections are not done, the owner can be fined. Exceptions include HOA-owned ponds for single-family development. For this type of development, the HOA may petition to have fully functional and maintained measures taken over by the city.
- S. Does the city have any other strategy to reduce green field development?
Daryl will look at planning documents and get back to group

IV. Case Studies – Mike MacIntyre

Mr. MacIntyre covered two case studies pertaining to the ordinance.

Case 1: The first case provided was a 7-Eleven at the intersection of Marvin Rd. and N. Wendover Rd. The site is 1.07 acres. There was a slight increase of

impervious coverage added to the site, but an underground detention system installed on the site decreased stream protection flow runoff from 1.33 cubic feet per second (cfs) to 0.04 cfs which is even lower than the undeveloped peak runoff of 0.06 cfs. The redevelopment also provided additional onsite detention to reduce downstream flooding impacts. A mitigation fee was paid for pollutant removal. It would have cost more for the site to comply onsite than to pay the fee. An underground sand filter could not have been installed because of the necessary depth for drainage of the sand filter could not be provided.

Case 2: The second case presented was Hendricks Autohaus on Independence Blvd. Before redevelopment the site had 5.37 acres of impervious coverage with no tree save area or additional vegetation. After redevelopment the site has 4.67 acres of impervious coverage, has 0.25 acres of tree save area, and 0.45 acres of additional vegetation. An underground detention system was provided onsite. The flow from a medium storm (stream erosion flow) on the site before redevelopment was 16.50 cfs and was reduced to 0.64 cfs after redevelopment. These values represent a great improvement in reducing volumes and velocities of storm water runoff to protect streambanks. The site also provided additional detention to reduce downstream flooding impacts. A mitigation fee was paid for pollutant removal. Jordan Miller stated he believed a sand filter could not have been installed because of limitations in connecting to downstream storm drainage structures.

- V. Upcoming Meetings – Daryl Hammock
Mr. Hammock stated that Dr. Bill Hunt will be speaking at the March 26th meeting. He asked for requests for Dr. Hunt to speak about. Requests included:
- A. Pros and cons of mitigation fees
 - B. Proximity of improvements to redeveloped sites
 - C. Regional vs. onsite controls

Any other suggestions should be emailed to Daryl Hammock by Friday March 20th to give Dr. Hunt adequate time to prepare. At the next meeting there will be a consensus on minutes and survey. The remaining case studies will be presented on April 9, 2015.

VI. Closing and Adjournment – Rusty Rozzelle

Prior to the next meeting, the Task Force members were asked to review the 3rd draft of the survey and meeting minutes for March 12th that will be made available on the website by March 23rd. There being no further business, Rusty Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for



600 E. Fourth Street
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Thursday, March 26, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.



To report pollution or drainage problems, call: 311
<http://stormwater.charmeck.org>



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Tim Richards
Daryl Hammock
Marc Recktenwald
Tom Ferguson
Karen Weatherly
Nikki Trainham
Steve Jadlocki

HANDOUTS:

None

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Meeting minutes from March 12th were approved with no concerns. Rusty asked for questions/concerns pertaining to the survey. There being no questions or changes recommended the final draft of the survey was approved.

II. Presentation/Question & Answer – Dr. Bill Hunt

Dr. Hunt started the meeting with a brief presentation describing retrofit projects. The projects varied in size, type, and funding source. He discussed the benefits that each project had and how similar projects can be implemented using programs such as fee-in-lieu in Charlotte.

A large portion of Dr. Hunt's presentation consisted of a question/answer section. Dr. Hunt was asked the following questions and the corresponding answers were provided by Dr. Hunt, staff and fellow task force members.

- A. Is the Hal Marshall site still in place?
 - It is being removed because of the incoming light rail. The existing rain garden was not required through any ordinance. However, post-construction requirements will apply when this site is sold and redeveloped.
- B. All of the examples provided in the presentation were successful, are there times when you believe you will get a benefit and then do not?
 - Yes, we have learned a lot and viability has increased. Typically the issue is when a project intersects the water table for part of the year; typically there is an increase in nitrogen levels. Another issue we see is when projects are not inspected or maintained correctly. We have seen projects that have been fertilized because the owner doesn't know not to. However, Charlotte-Mecklenburg has a great inspection program. There are no guarantees, but most of the measures in areas with good inspection programs work well.
- C. Green roofs are not considered storm water controls?
 - Green roofs do a great job in the long run; however, in the short term the fertilizers used leach out are greater than without a green roof.
- D. Do you (Dr. Hunt) think the fee-in-lieu program is a good idea?

- Yes because the money collected does not leave the county. Two of the three projects shown would not have been possible without similar programs. It is very important to provide access to citizens. Ancillary benefits may be realized. Are systems generally piped or culverted? Then it may be better to construct regional measures.
- E. Is it worth “Robbing Peter to pay Paul?” There could be effects directly below the site that are not addressed so a larger project can be implemented.
 - If a decision matrix is used I believe that local spending should get bonus points. This means that mitigation improvements in closer proximity to the mitigated project should be weighted more than improvements that are farther from the mitigated project, or source of the fee.
- F. What type of onsite conditions warrant fee-in-lieu? What key factors should we be looking for?
 - We cannot just isolate what is happening onsite. Neighboring properties have to be investigated as well. If there is a stream immediately adjacent to the project site, that stream needs to be considered. In areas where nitrogen control is required, which does not include Charlotte-Mecklenburg, 30% of the nitrogen control is required onsite (note-nitrogen reductions are not currently required for sites not increasing impervious). Total suspended solids are different. Community amenity is important. The larger the redevelopment, the more opportunities for greening onsite. A task force member stated that there are site constraints that need to be considered.
- G. Clarify “green stuff onsite?”
 - Using green infrastructure for some treatment. The bigger the site the easier this will be to do.
- H. Knowing that a large part of the concern is flooding and parking lot runoff what type of projects would be the most beneficial?
 - Bioretention, green roofs, and rainwater harvesting have some benefits. It depends on where you are concerned about the water from each site going and where the flooding occurs. A larger regional structure could be beneficial.
- I. Do you see why stormwater harvesting is not done more?
 - There are a lot of concerns from reviewers. Someone has to be there to irrigate after a large rain event even if there is not a need for it. Old stormwater harvesting standards have nothing pertaining to smart systems that communicate with weather services and irrigate before a storm arrives to have enough room for incoming storm. Forced leaks can also be used to keep water levels down to

allow for room to collect water. These technologies, of course, add costs to the redevelopment project.

- J. How does Charlotte view harvesting with storm water controls?
- Charlotte will review stormwater harvesting on a site by site basis. We are currently monitoring one site to see how much stormwater is used for irrigation in winter months. The results of this test may potentially allow the site to use irrigation to meet pollutant removal requirements with future site expansion. We will allow any site to conduct stormwater harvesting, but we typically will not allow the measure to be used to meet ordinance requirements without proof that the measure will be used throughout the year.
- K. If a developer has to provide measures onsite, can grants be used to help meet costs?
- Yes, rainwater harvesting can be done with partnerships. We are not currently aware of any grant programs that will fund a regulatory requirement.
- L. What is your opinion on sites using the method to save themselves money and not actually using the fee because there are no other options?
- One of the tricks is to come up with an optimal fee. The fee should not be so low that it is used all the time, but still low enough that it can be an option.
 - After being told approximately how many projects a year utilized the fee Dr. Hunt commented that this project number is low and there are other places that almost all projects that have the option to use the fee have used it. However, Dr. Hunt's response was made in the absence of data regarding the number of projects eligible for the mitigation fee.
 - A task force member stated that there is concern that only costs are being used as the determining factor. Perhaps there should be at least a minimum onsite control. Can landscaped areas help? Dr. Hunt replied that undersized stormwater control measures could be a possibility.
- M. Do you know of other municipalities that have stormwater ordinance requirements for sites not increasing impervious area?
- At this time only Chapel Hill and Carrboro. Durham is preparing to require redevelopment projects to meet stormwater ordinance requirements. Raleigh may consider it. Charlotte's ordinance is considered leading edge and is looked to as an example of what can be done by other communities.
- N. What percent of Raleigh streams are impaired?
- Most of them.
- O. Most of the streams in Mecklenburg County are impaired; to what extent does it make sense to improve quality?

- You would have to look at if it is restorable, how bad it is, and if the community wants it restored. You would have to draw the line between what projects can actually be restored and what projects are not restorable. Other benefits should be considered as well, such as, how the site can play into the community.
- P. Is there a more complete way to look at the benefits?
 - Stormwater practices are generally undervalued. There are benefits that are not recognized right now that I (Dr. Hunt) believe will be recognized in the future.
- Q. Is there a stream here that nothing can be done about?
 - From economics you want to put money where you see benefits, but sometimes the benefits go beyond just fixing the stream. Some streams are going to require much more effort to restore than others. Are you going to spend your limited funds to try to push a slightly polluted stream back over the line or spend a lot of money to only slightly improve a more severely polluted stream? Community benefits matter as well.
- R. Charlotte has an economical boom and developers have money, how would you take this into consideration?
 - People come to North Carolina in part because of the environment. To encourage people to continue moving here you have to remember why they moved here. You have to remember that the developer would not take on that extra cost. That cost would be out on the consumer. If the price of redevelopment becomes too great, developers will look more to developing green space.

III. Case Studies – Mike MacIntyre

Mr. MacIntyre reviewed the first two case studies pertaining to the ordinance, and presented the third case study to the task force. The third case study was on the Bank of the Ozarks redevelopment on Park Road. The total site area is 1.03 acres. The amount of total impervious and pervious area had no significant changes before and after construction. The developers were initially going to install an underground sand filter; however, the owners of the adjoining property would not allow the developers to lower a shallow pipe in order to allow the sand filter to work. Much of the discussion focused on site limitations. Due to site topography, drainage pattern, size restrictions, and zoning ordinances the site could not realistically accommodate any other form of stormwater control. The site paid \$47,400 in lieu of providing onsite controls.

In response to a request to show different scenarios, the first case study showed a slight increase in impervious coverage, the second case study showed a decrease in impervious coverage. The third case study showed no change in impervious coverage.

IV. Closing and Adjournment – Rusty Rozzelle

There being no further business, Rusty Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, March 26, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, April 9, 2015 - **Approved***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Members

Dr. Craig Allan
Nancy Carter
Nate Doolittle
Paisley Gordon, Jr.
Sam Perkins
David Robinson
Rick Roti
Eric Spengler

ABSENCE: Voting Members

Roger Coates
Carrie Cook
Ken Szymanski
Steve Wilson
Dr. Jy Wu

ATTENDANCE: Alternates

Marc Houle
Bryan Holliday

ATTENDANCE: Public Guest

ATTENDANCE: City & County Staff

Rusty Rozzelle, Facilitator
Mike MacIntyre, Speaker
Tim Richards
Daryl Hammock
Marc Recktenwald
Tom Ferguson
Nikki Trainham
Jordan Miller

HANDOUTS:

None

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Meeting minutes from March 26th were discussed. Several changes to the minutes were discussed and minutes will be considered approved with agreed upon changes. The approved minutes will be posted to the website.

II. Previous Questions – Daryl Hammock

Daryl Hammock gave a brief presentation on some of the questions that have been asked throughout the process. During Mr. Hammock's presentation the group discussed the process of approving a set of plans and how it relates to a developer's ability to use the fee option. The rezoning process was discussed. This is an iterative process and often involves addressing comments from neighbors. A board member added that plans typically start with given constraints such as setbacks, zoning, and physical site restraints and work in from there. All sets of plans have to go through all department reviews.

III. Case Studies – Mike MacIntyre

Mr. MacIntyre reviewed the third case study presented on the March 26th meeting, which allowed for more discussion due to the time limit of the last meeting. Revisiting the details of this case study opened a conversation about what the site would have done if there was not a mitigation fee option. The following questions were asked in regards to the Bank of the Ozark case study:

- A. What analysis was required of the owner to utilize the fee option?
 - They had to demonstrate that underground detention could not be used. For this site there is not enough depth to bury it underground and tie into existing system. They also had to do a land value and treatment analysis.
- B. What would happen if there was no fee?
 - The owner would have to go to the Stormwater Advisory Committee and apply for a variance or not redevelop the site.
- C. What are the differences between fee-in-lieu and variance?
 - There is not always a fee associated with the variance. There could be mitigation required or something else to offset the impacts caused by the site. With a fee program there is more certainty. A

variance takes between 30-60 days and the outcome is not predictable/certain. It is typically used as a last option. It was noted that a variance does not get a developer out of complying with the ordinance; the intent of the ordinance must still be met.

- D. How many people paid the fee with a variance?
- About 5 in a 3.5 year period
- E. Are there many properties that have a similar problem of not being able to tie into an existing system?
- Generally older systems are all too shallow because they were built without the knowledge of future requirement changes. About 60% of the existing pipes have been surveyed and is available on Virtual Charlotte.
(<http://vc.charmeck.org/?layers=Storm%20Pipes>)
- F. Why could you not fill site to add depth for the system?
- Driveways have to match existing roads and there are restrictions on slopes. Flow paths may also be changed with fill operations.
- G. What is being done/is anything being done to add treatment in line with the storm system?
- This is similar to a regional system. An inline sand filter cannot be added because it would have to be under the road. There are maintenance issues when they are under roads and it is expensive.

Case 4: The fourth case provided was the Autobell at South Park. The site is 1.8 acres. There was an increase of impervious coverage added to the site, but an underground detention system installed on the site decreased stream protection flow peak runoff from 0.77 cubic feet per second (cfs) to 0.11 cfs which is closer to the undeveloped runoff of 0.06 cfs. The redevelopment also provided additional onsite detention to reduce downstream flooding impacts. A mitigation fee was paid for pollutant removal. It would have likely cost more for the site to comply onsite than to pay the fee.. The site also has a green roof for which they do not receive any credit.

Case 5: The fifth case provided was a Harris Teeter on Providence Rd. The site is 1.95 acres and no additional impervious was added. An underground detention and infiltration system was added under the parking lot. An infiltration system was allowed to be used on this site because the soil met the infiltration rate requirements. The underground detention system installed on the site decreased stream protection flow runoff from 5.25 cfs to 0.10 cfs which is lower than the undeveloped rate of 0.56 cfs. This redevelopment rate is lower than the predevelopment rate because of the design for infiltration into the ground rather than into a storm drainage pipe.

Case 6: The final case presented was Carnegie Apartments, which is not a pure example of redevelopment covered under the committee's charge. However it does show the results in stormwater flows when a site increasing impervious by more than 20,000 sf installs measures. This is currently under construction and will have a total increase of impervious of about 1.5 acres. This site provided onsite detention consistent with development standards.

At the end of his presentation Mr. MacIntyre discussed the 20,000 square feet (sf) threshold for adding impervious that is listed in this part of the ordinance. The threshold is based on consistency with other thresholds in stormwater ordinances and is there to help with small additions required to meet other City requirements. Once the threshold is met the owner must comply with the ordinance for all impervious added since the ordinance passed, not just impervious over the 20,000 sf. One member asked if the city believed that people picked the transit area to avoid the cost of putting in onsite controls. Mike commented that he did not believe people picked these locations for that reason. Most calls he receives from owners are about particular sites, not about special areas of the City.

IV. Future Meeting – Daryl Hammock

Mr. Hammock asked the group what other information they would like the city to present before deliberations begin. Mr. Hammock received the following requests:

- A. Other options, policy and technology, other than catch basins that can be considered.
- B. A closer look at the ordinance before 2008. What was it like before the downturn in the economy?

Any further questions and suggestions can be emailed to Daryl Hammock or Rusty Rozzelle.

V. Deliberation Process – Rusty Rozzelle

The current plan is to have one more meeting, April 23rd, where the city presents information. After this meeting, if there are no further requests for information, task force members will be asked to consult with the constituent they represent, complete the online survey, and email it back to Mr. Rozzelle by April 30th. Task force members will also be asked to include in the space provided at the bottom of the form any alternatives they would like to have tested for consensus during the deliberation process. By May 7th, Rusty will compile and summarize survey results and email to Task Force members along with the alternatives to be considered during deliberations. Between May 7th and May 14th members will need to review the alternatives and if they disagree with what is proposed they should develop alternative language that they can agree to. They will need to

come to the May 14th meeting prepared to work toward consensus regarding the proposed alternatives, including presenting their preferred language as necessary. Mr. Rozzelle reminded the group that consensus is reached when all members “can live with” or “not object to” the proposal being made. Consensus is accepting that the decision is the best that could be made given the circumstances and the many participating interests. Consensus does not mean everyone gets everything they want.

IV. Closing and Adjournment – Rusty Rozzelle

There being no further business, Rusty Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, April 23, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, April 24, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Dr. Craig Allan
Nancy Carter
Roger Coates
Paisley Gordon, Jr.
Sam Perkins
David Robinson
Rick Roti
Eric Spengler
Ken Szymanski
Steve Wilson

ABSENCE: Voting Member

Carrie Cook
Nate Doolittle
Dr. Jy Wu

ATTENDANCE: Alternates

Marc Houle
Joe Padilla

ATTENDANCE: Public Guests

None

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock, Speaker
Mike MacIntyre, Speaker
Tom Ferguson
Jordan Miller
Nikki Trainham
Karen Weatherly

HANDOUTS:

None

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Meeting minutes from April 9th were discussed. No changes were presented, and the minutes were approved. The approved minutes are posted to the website.

II. Summary of Case Studies, City Water Quality Projects – Mike MacIntyre

Mr. MacIntyre gave a brief overview of the previous case studies that have been presented. Mr. MacIntyre commented on the headwater analysis of the 16 projects that have been approved to pay a fee. None of the redevelopment projects thus far have presented a headwater impact. During this presentation there was some discussion regarding the definition of headwater problems. Mr. MacIntyre explained that the analysis ends where the drainage area is at least ten times the size of the site. This would make the site less than or equal to 1/10th of the contributing drainage area.

Mr. MacIntyre also discussed the possible types of projects that fee money is and can be spent on. A map of the current and possible future project locations can be found in the April 23rd presentation. During his presentation Mike made the point that when a fee is collected the money has to be used for a project in the same named watershed. This brought up some concern about missing a potential high impact project due to the location restrictions. Mike explained that the idea behind this rule is to make sure that the project that the fee is being collected from is being mitigated in the same stream. Once all of the necessary mitigation measures had been constructed within a named stream, the City would investigate the possibility of using the remaining funds for another stream.

There was also some confusion on the headings used on the table describing where the money collected from fees goes. “Impervious Area Mitigated” is referring to the amount of impervious area from the sites that paid the fee. Even though the sites in this column paid a fee, some still provided some detention on site. The heading “Impervious Area Treated” is referring to the impervious area that is being treated by the regional projects that the city is implementing with the collected fees. It was noted that this table includes all projects that paid a fee and not just the redevelopment projects.

III. Regional Projects, Prior Staff Recommendations – Daryl Hammock

Daryl Hammock started his presentation with the drivers behind the revision process that started in 2014. He discussed staff’s previous recommendations and

options that have been considered. Mr. Hammock's presentation also gave a comparison of cost and scale of regional projects and onsite projects. This included a proposed project that would be funded by fees and the current rate of recovery from projects that have already been implemented. During his presentation, Mr. Hammock received the following questions and comments:

- A. What is the definition of regional that you are using?
 - A regional pond would receive 10-75 acres. Regional to the City still means the same named watershed (e.g. – Irwin Creek).
- B. One suggestion was to put cloth catchers over the catch basins. This shows that there are other options that are onsite and inexpensive.
 - We do not know of many inexpensive ones that work. We looked into catch basin interests and in our research have found that they do not work. Many cities have tried them and are abandoning the idea. The most effective one found removed only 12% of pollutants and many did not work at all. Clogging and frequent maintenance are concerns.
- C. The information given only shows the cost to build the structure, what about the cost to maintain the structures?
 - The maintenance costs are about \$1000/year for both regional and onsite. However, this correlates to a much lower cost for regional controls since these controls serve a much larger area and there can be fewer of them.
- D. How do you measure/define benefits?
 - Flow control, sediment removal, metal removal which are all the issues of concern in the states impaired waters list for Charlotte.
- E. When looking at a regional control that is not being placed onsite the approach is only looking at the downstream benefits. This approach does not consider the network that is upstream of a regional control and downstream of a redevelopment site.
 - In all of the projects that have been put into place thus far there have been no quality headwater streams to consider. Many of the networks that are coming into these regional devices are piped or eroded channels and ditches.
- F. Is there a movement to move away from a stormwater fee and to a tax?
 - No, the fee is the typical trend.
- G. Does stream restoration help remove pollutants?
 - Restoration helps stop erosion and sedimentation, which is a concern and is a form of pollutants. It takes stormwater control measures to stop the pollution from getting to the stream.
- H. How do you prevent the stream from carving out?
 - When engineers design the restoration they are attempting to make the stream use up energy and slow down the water. When projects do not

do this they fail and have to be redesigned. Many of the projects in the last five years are working well.

- I. The choice of approach for restoration, is that determined by the location?
 - Yes, each segment is individually designed.
- J. Regarding the idea of charging the fee based on the price it would take for the city to mitigate two times the site size: how would you know the cost of the control?
 - It would be based on past data that the city has.
- K. Could the fee be higher or lower for projects that do not have any other option versus sites that are trying to get out the cheaper way?
 - We have not considered this.
- L. If a site did not have an “engineering issue” could the site pay what the comparable cost to actually accommodate the control would be? If not, there would be an advantage to find sites with structural issues.
 - From another task force member: Every site is economically different. There are more factors that drive a developer to a specific site. If you want to keep someone in Charlotte you have to incentivize it.

Mr. Hammock commented that in 2011 when the fee was being proposed to be extended to other areas he did not agree with it since it was an alteration to the consensus reached in 2007. After working with the fee program over the last few years he now sees the program as environmentally beneficial and complementary to the goal of clean water, faster. From another task force member: There are areas surrounding the city that developers could easily choose to go a little further out and not have to comply with ordinance and still have a similar location. When someone wants to develop in Uptown they will find a way to be in that specific location. However, when someone wants to develop on the outskirts of Charlotte it is easy to move out of Charlotte and still have the benefit of the type of location they are looking for.

IV. Survey, Where do we go from here? – Rusty Rozzelle

This meeting is the last planned meeting that city staff is providing information. Any information being provided after this meeting will be directly related to the survey and the alternatives. Task force members should consult with the constituency that they represent, complete the online survey, and email it back to Mr. Rozzelle by April 30th. Task force members will also be asked to include in the space provided at the bottom of the form any alternatives that they would like to have tested for consensus during the deliberation process. By May 7th, Mr. Rozzelle will compile and summarize survey results and email to Task Force members along with the alternatives to be considered during deliberations. Between May 7th and May 14th members will need to review the alternatives and if they disagree with what is proposed they should develop alternative language

that they can agree to. They will need to come to the May 14th meeting prepared to work toward consensus regarding the proposed alternatives, including presenting their preferred language as necessary. Mr. Rozzelle reminded the group that consensus is reached when all members “can live with” or “not object to” the proposal being made. Consensus is accepting that the decision is the best that could be made given the circumstances and the many participating interests. Consensus does not mean everyone gets everything they want.

IV. Closing and Adjournment – Rusty Rozzelle

There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, May 14, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, May 14, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Nancy Carter
Roger Coates
Nate Doolittle
Marc Houle
Sam Perkins
David Robinson
Rick Roti
Eric Spengler
Ken Szymanski
Dr. Jy Wu

ABSENCE: Voting Member

Dr. Craig Allan
Paisley Gordon, Jr.
Steve Wilson

ATTENDANCE: Public Guests

Nikki Trainham

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock, Speaker
Mike MacIntyre, Speaker
Marc Recktenwald, Speaker
Tom Ferguson
Jordan Miller
Tim Richards
Karen Weatherly

HANDOUTS:

Stakeholder Process Refresher and Framework for Consensus

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Meeting minutes from April 24th were discussed. No changes were presented, and the minutes were approved. The approved minutes are posted to the website. A task force member asked how voting will be addressed when folks are absent. Mr. Rozzelle explained that voting will be counted only for those present.

II. Testing for Consensus Summary and Results Discussion – Rusty Rozzelle

Mr. Rozzelle discussed the results of the survey filled out by voting members following the previous meeting. He thanked the Task Force members for 100% participation in the survey and for their timeliness in getting the completed form to him. Mr. Rozzelle explained that survey results will be used to frame the deliberation topics as the group moves towards consensus. A task force member asked about particular language within the comments of the survey results pertaining to “The benefits of leveraging the fees for larger, more effective, regional BMP’s is substantial and should be increased.” Daryl Hammock explained that he took this to mean that using the fee for offsite regional projects allows for a greater treatment area per cost unit.

III. Other Cities with Fee in Lieu – Mike MacIntyre

Mr. MacIntyre briefly discussed other municipalities around the country that have a Fee-in-Lieu program. The municipalities presented were Prince George’s County, Maryland, San Antonio, Texas, Portland, Oregon, and Austin, Texas. Mr. MacIntyre received the following questions and comments:

- A. Clarification that there are no requirements in San Antonio for redevelopment projects?
 - We cannot confirm with certainty as we only looked at the fee portion of the ordinance.
- B. Can you clarify the definition of “practicable”?
 - This would be defined by staff/stakeholders within each municipality. This could be based on cost and/or engineering constraints.
- C. Clarification if “receive projects every week” within Austin meant projects are approved for a water quality fee weekly or just inquired about?
 - Staff from Austin indicated that this meant multiple projects per week were approved to pay the water quality fee.
- D. What municipalities listed have a similar redevelopment requirement to Charlotte?
 - Prince George’s County and Portland.

IV. EPA Guidance and How We Approach Watershed Restoration – Daryl Hammock

Mr. Hammock explained how the EPA’s guidance encourages water quality trading where circumstances favor this approach. Mr. Hammock provided an example of this trading with a current project in design within Charlotte (Chantilly) and a project that has been completed in Atlanta, Georgia. The concept of Net-Zero Water was briefly discussed as a current concern in the western United States. Mr. Hammock received the following questions and comments:

- A. Who paid for land associated with Chantilly project?
 - There were contributions from many sources, but mostly from the Federal Government through the Floodplain Buyout (Acquisition) Program.
- B. Would these projects (like Chantilly) happen without the mitigation fee and how many projects that paid a fee contributed to this project?
 - It would be difficult to fund portions of this type of project without the mitigation fee funds. Approximately \$1 million of mitigation fee funding is contributing to the project. This represents funding from several redevelopment projects and would depend on the buyout acreage of each.
- C. Which is better, in Mr. Hammock’s opinion, on-site controls or this regional project?
 - Briar Creek watershed (as a whole) will be benefitted more utilizing the regional controls than on-site controls.
- D. Some areas (upstream) of the new regional BMP project will not be improved through this regional approach and on-site controls would be best.
 - *IF upstream segments exist* then on-site controls would benefit those streams directly, however any buffers that have been destroyed with previous construction, and the severe manmade modification of streams, along with eroded stream banks would not be improved with onsite controls. It is possible that in the future, additional onsite controls or additional fees would be collected that would benefit these upstream areas.
- E. Would large water treatment facilities at furthest point downstream of watersheds be the best option for removing all pollutants?
 - Regional controls are preferable farther upstream to help restore water quality within the City. These “regional” controls are often sited in very small drainages collecting 25-75 acres of runoff.

- F. How does parcel cost affect where regional BMPs are installed?
- While land cost does factor into project location, it is possible to partner with other parties to utilize existing publicly owned land.
- G. Can you clarify what is meant by a 2:1 treatment ratio?
- Essentially, on average, twice the amount of impervious can be treated in a regional control as can be treated in an on-site control for the same cost. However, regional is not always best depending on watershed conditions.
- H. Regional projects can provide treatment for areas of the City that may never be redeveloped (Chantilly residential).
- This is true and can be a way to treat existing impervious areas that would likely never be treated on-site.
- I. Can regional controls possibly be removed by the new owner?
- No, regional controls installed by Storm Water Services are protected in perpetuity with easements.
- J. If treated stormwater enters a culvert system, is it re-polluted?
- Yes, some of the treatment benefit would be lost when the system stormwater and the treated stormwater mix. Regional and on-site controls are both valid, but location is key.
- V. Previous Stakeholder Process and Framework for Consensus – Rusty Rozzelle

Mr. Rozzelle explained the previous stakeholder process from 2004-2005 and how this affects our process in this task force. The Framework for Consensus was discussed to move towards a solution that works for all parties. The parties present explained concerns and comments on the framework. Some options for solution building were briefly discussed in the time remaining. A vote was called for to move forward based on a revised language to the framework. The vote count was seven out of nine members in favor of the revised framework. The two members opposing the current framework needed more information and to consult with their constituents prior to moving forward. The revised Framework for Consensus document will be available at the next meeting.

VI. Closing and Adjournment – Rusty Rozzelle

There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, May 28, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, May 28, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Dr. Craig Allan
Nancy Carter
Roger Coates
Nate Doolittle
Marc Houle
Sam Perkins
David Robinson
Rick Roti
Eric Spengler
Ken Szymanski
Steve Wilson

ABSENCE: Voting Member

Paisley Gordon, Jr.
Dr. Jy Wu

ATTENDANCE: Alternate

Carrie Cook
Joe Padilla

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock, Speaker
Mike MacIntyre, Speaker
Tom Ferguson
Jordan Miller
Tim Richards

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Meeting minutes from May 14th were discussed. No changes were presented, and the minutes were approved. The

approved minutes are posted to the website. Mr. Rozzelle reiterated that voting will be counted only for those present. Mr. Rozzelle asked that members let him know of any upcoming meetings they will miss to allow for rescheduling of meetings in the event that there will be significant absences. Mr. Rozzelle encouraged all organizations represented on the Task Force to assign an alternate that can be present when the regular member is unable to attend. If an organization would like to appoint an alternate they need to contact Mr. Hammock. He also explained that alternates should be as familiar as possible with the process and material in the event they are asked to represent their organization. Mr. Rozzelle also reminded the members that alternates cannot represent multiple organizations.

II. Answers to Questions from Task Force Members – Mike MacIntyre

Mr. MacIntyre provided maps showing the watersheds within the ETJ and the impervious percentages of each as well as a map depicting “Underutilized” parcels as determined by the City Planning Department. These maps will be made available to all members within a week. Mr. MacIntyre received the following questions and comments:

- A. What is the date of the “Underutilized” parcel data?
- This will be added to the maps prior to sending them out to the members.
- B. Can the watersheds, streams, and area of underutilized land within each watershed be added to the map?
- These items will be added to the maps prior to sending them out to the members.

III. Framework of Consensus – Rusty Rozzelle

Mr. Rozzelle discussed changes to the Framework of Consensus document based on comments from the previous meeting. There was debate on the language within the document and a vote was called to agree on the language. The language was approved unanimously.

IV. Range of Alternatives to Reach Consensus – Mike MacIntyre

Mr. MacIntyre presented six key topics that have been expressed by task force members throughout the meetings. He also presented five ranges of alternatives based on these key topics. The five ranges of alternatives are:

1. When the fee can be used (from never to always)
2. Quality stream review (from no review to a review in all cases)
3. Alter mitigation fee (from lower fee to higher fee)

4. Offer fee deductions (from no fee deduction to a fee deduction for any measure)
 5. Fee approval process (from a variance to a checklist process)
- Alternatives can be removed or added as the discussion and deliberations move forward. Mr. MacIntyre received the following questions and comments:
- A. Can you clarify what is meant by “Regional control is cost-effective at restoring watersheds at a watershed scale”?
 - This is to say that on the whole, a watershed can be made to meet water quality standards more cost effectively using regional controls.
 - B. Can you clarify the need for “immediately downstream” within the statements?
 - These statements are general in nature and are meant to capture comments of one or more of the task force members. Proposed alternatives were presented at the meeting to address the task force comments and concerns. “Immediately downstream” also refers to the section of stream introduced as the red line that has been discussed in task force meetings.
 - C. Has staff looked at the consequences of the changes to the ordinance based on these alternative ranges?
 - This will be looked at as each alternative is discussed and staff recommends starting in the middle of the range for each alternative.
 - D. Why is this different from current process and what would be changing?
 - These changes are based on what staff has heard from task force members so far and any differences in process will be discussed amongst the members and staff.
 - E. Can you further explain hot spots and what this list would entail?
 - These hot spots can be discussed moving forward and examples of each can be provided.
 - F. Can large parking lots and nurseries be added to the list of hotspots?
 - Nurseries should be included already and parking lots can be discussed as an addition.
 - G. Can the 10% location be further explained?
 - Staff will present more information on the 10% location and analysis at the next meeting.
 - H. Where is cutoff for quality stream and can the locations of quality stream segments be made available by staff?
 - The assessment of quality streams and how far to analyze a stream will be discussed further at the next meeting. Staff will present a proposed alternative for a desktop assessment for stream quality analysis at the next meeting. This methodology will help designers have a much better idea of when a stream is expected to have higher quality.
 - I. Explain site size limitations.

- Size limitations have been mentioned previously by members of the task force. The premise behind size limitations for projects using a fee is that it should be more feasible to provide onsite controls for larger sites than smaller sites.
- J. Concerns were expressed by many members about adding complexity to the ordinance. Some members requested information from development interests showing how redevelopment sites are chosen.
- K. Information requests for staff on hot spots:
- Further define hotspots and provide table listing treatment options for each
 - Coordinate with other ordinances (Zoning)
 - Cost data for on-site controls
 - Discuss parking percentage of site
 - Show which projects already approved for redevelopment mitigation would be considered hotspots and effects on each
- L.
- V. Closing and Adjournment – Rusty Rozzelle

Mr. Rozzelle requested that Task Force members notify him of any alternatives they would like to add for consideration. In addition, he encouraged the members to volunteer to work with staff on the development of alternatives for presentation to the Task Force. Mr. Rozzelle also indicated that detailed information regarding onsite controls would be made available a week in advance of the next meeting so it can be considered for consensus during the meeting. There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, June 11, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, June 11, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Dr. Craig Allan
Roger Coates
Nate Doolittle
Paisley Gordon, Jr.
Marc Houle
David Robinson
Rick Roti
Eric Spengler
Steve Wilson

ABSENCE: Voting Member

Nancy Carter
Sam Perkins
Ken Szymanski
Dr. Jy Wu

ATTENDANCE: Alternate

Bryan Holladay
Joe Padilla
Emilee Syrewicze

ATTENDANCE: Public Guests

Nikki Trainham

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock, Speaker
Isaac Hinson, Speaker
Mike MacIntyre, Speaker
Tom Ferguson
Jordan Miller
Tim Richards

HANDOUTS:

Stormwater Mitigation Fee Task Force Consensus Documents
PCSO Stream Quality Assessment

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Meeting minutes from May 28th were discussed. No changes were presented, and the minutes were approved. The approved minutes are posted to the website. Mr. Rozzelle reviewed the consensus documents and the process moving forward. Once all alternatives have been deliberated and consensus reach on each, the process will be complete. Mr. Rozzelle asked members to let staff know of any additional alternatives via email if possible to avoid getting off topic during the meetings. If members have alternatives to discuss during the meetings, they can bring it to the group at that time, but it is preferred that staff have time to put together necessary information for the group. Mr. Rozzelle explained that conditional consensus can be used if consensus on one alternative depends on the outcome of another. Several members expressed concerns with the process, but ultimately it was decided that each alternative would be discussed individually, and conditional consensus can be used if necessary. The order of the alternatives to be discussed was explained, and the members agreed to the order with which they are to be discussed.

II. Hot Spots – Mike MacIntyre

Mr. MacIntyre provided information about what types of development would be considered hot spots under the proposed alternative. A summary of how many projects would have had to comply with the hot spot proposal was given based on those 16 that have been approved under the redevelopment mitigation option to pay a fee. A table showing the available controls for each category of hot spots was shown. Mr. MacIntyre received the following questions and comments:

- A. Can hot spot definitions be tied to Zoning land uses?
- This would be difficult as many of the hot spots would not be specific to the use requiring the controls but rather vague (ex. Commercial zoning).
- B. Which specific redevelopment projects fall into each category of hot spot compliance?
- This list of projects can be provided prior to the next meeting.
- C. Can only large parking lots be considered hot spots as opposed to all parking?
- This threshold would need to be set based on deliberations during this process.
- D. Are the catch basin inserts (CBIs) effective in removing pollutants?

- Yes, they are somewhat effective at removing targeted secondary pollutants. They are not very effective in removing Total Suspended Solids (TSS).
- E. Would the mitigation fee be reduced to offset the additional cost of these on site controls?
 - That would need to be discussed during that alternative discussion. This may be difficult if the fee is being paid for TSS removal and the provided onsite controls are not effective at removing this primary pollutant of concern.
- F. Can other (non-redevelopment) sites utilize CBIs to get credit for pollutant removal?
 - No. These are not proven to be particularly effective at removing TSS.
- G. What pollutants would be addressed with CBIs?
 - Secondary pollutants of concern based on each hot spot use could be addressed with CBIs (trash, grease, oil, etc).
- H. How would the parking lot size be measured for hot spots (spaces or area)?
 - It may be difficult to base the determination on spaces, as this definition can be interpreted differently. We would suggest basing this on an area calculation of specific uses of the site (to be described in the Administrative Manual). Answer will be presented at the next meeting.
- I. Please specifically prescribe which areas of the site would need to be treated with an on-site control.
 - This information would be in the Administrative Manual. Answer will be presented at the next meeting.
- J. Can collection and re-use of stormwater be added as an option for all hotspots?
 - Yes, but each site would need to have a dedicated year-round use for the collected runoff.
- K. Parking is required to be installed based on the use of building.
 - This is true and the effects of this ordinance requirement would need to be carefully considered.

The Fee Task Force reached consensus on Ordinance language changes for Alternative #1. The current Ordinance language is provided below in “black” italicized text. The agreed upon changes to the Ordinance language from the June 11th meeting are provided below in “blue” text.

(c) Redevelopment not within transit station areas or distressed business districts. Projects involving redevelopment of existing built-upon-area and the cumulative addition of less than 20,000 square feet of new built-upon-area, are allowed by right to forego meeting the requirements of this article, except for required stream buffers and

phosphorous requirements, provided one of the following measures is implemented on the site:

(1) If an analysis of the downstream storm water conveyance system confirms that volume and peak control facilities may be waived by the Storm Water Administrator, provide 85 percent TSS removal from the first inch of rainfall for the entire project and pay the city a mitigation fee according to rates set forth in the administrative manual for the pre-project built-upon-area ~~and any additional impervious area.~~

or

*(2) If an analysis of the downstream storm water conveyance system confirms that volume and peak control facilities may be waived by the Storm Water Administrator, pay the city a mitigation fee according to rates set forth in the administrative manual for the pre-project built upon area and any additional impervious area, **and provide limited onsite control of secondary pollutants as identified in the administrative manual.***

or

*(3) Provide one-year, 24-hour volume control and ten-year, six-hour peak control for entire project and pay the city a mitigation fee according to rates set forth in the administrative manual for the pre-project built-upon-area and any additional impervious area. **Provide limited onsite control of secondary pollutants as identified in the administrative manual.***

The following uses were agreed upon as hotspots:

- Vehicle maintenance and repair facilities
- Vehicle fueling stations
- Fast food restaurants with drive-thrus
- Gas Stations
- Salvage yards and recycling facilities
- Fleet storage yards and vehicle cleaning facilities
- Commercial and retail nursery operations

Parking is a concern to the group as a hot spot but the specifications for this potential hot spot will be discussed at the next meeting.

III. PCSO Stream Quality Assessment – Isaac Hinson

Mr. Hinson explained the PCSO Stream Quality Assessment as proposed by staff. The assessment contains a desktop analysis as well as a field analysis if necessary. Mr. Hinson received the following questions and comments:

A. What if the outfall from the site continues in a pipe system?

- The assessment would begin at the outfall of the pipe system.
- B. If a stream is considered to be medium or high quality, what is the resulting requirement?
 - This would need to be discussed and decided on by the task force members, but would likely require some on-site controls.
- C. Would all 500 feet of “open channel” need to be jurisdictional?
 - No. The channel could be partially jurisdictional.
- D. Can you estimate what percentage of Charlotte’s stream network would be considered medium or high quality?
 - Best estimate would be approximately 25% of area streams would be considered medium or high quality.
- E. Why does this assessment go past the 10% point?
 - This could be modified based on input from the Task Force members and staff.

IV. Closing and Adjournment – Rusty Rozzelle

Mr. Rozzelle reminded Task Force members that parking hot spot requirements would be deliberated at the next meeting with the intent on reaching consensus on that alternative. Follow up information will be provided on the stream quality assessment and attempt to reach consensus on that alternative. If this is accomplished, the next alternative will be discussed. Mr. Rozzelle asked that any additional alternatives be sent via email to Mr. Rozzelle or Mr. Hammock. There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, June 25, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, June 25, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Nancy Carter
Roger Coates
Nate Doolittle
Marc Houle
David Robinson
Rick Roti
Eric Spengler
Ken Szymanski
Steve Wilson

ABSENCE: Voting Member

Dr. Craig Allan
Paisley Gordon, Jr.
Sam Perkins
Dr. Jy Wu

ATTENDANCE: Alternate

Diana Daniels
Rob Nanfelt

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock, Speaker
Mike MacIntyre, Speaker
Tom Ferguson
Isaac Hinson
Jordan Miller
Marc Recktenwald
Tim Richards

HANDOUTS:

Stormwater Mitigation Fee Task Force Consensus Documents
Hot Spot Analysis Summary

I. Welcome, Review of Minutes, Consensus Document – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Meeting minutes from June 11th were discussed. One question was asked about item H (page 3) regarding the reference to the Administrative Manual being the answer to a question about how parking hot spots would be defined. Staff explained that this proposed Administrative Manual language will be discussed at this meeting and is in the handout documents. There being no other comments on the minutes, they were approved. The approved minutes are posted to the website. Mr. Rozzelle reviewed the consensus documents and the process moving forward. Mr. Rozzelle asked members if consensus can be reached on page 3 of the consensus document. There was a question regarding the language being removed from the ordinance and staff assured the members that this was a clarification of how the ordinance is currently implemented and will not change the way projects have been evaluated to this point. Consensus was reached on page 3 of the consensus document. Mr. Rozzelle asked the members for consensus on page 4 of the document and the following questions and/or comments were received:

- A. Can the language on page 4 regarding the “higher chance to release pollutants...” be clarified?
- This language will be revised to read: “*Stormwater pollution hot spots are characterized as having a higher probability than the rest of the site to release pollutants and include:*”
- B. Can we only include “high traffic” drive-thrus, such as restaurants but not include pharmacies, etc.?
- Staff has recommended including all drive-thrus for simplification/predictability and ease of implementation. The members discussed options for the specifics of this requirement. It was determined that drive-thrus associated with restaurants and/or drive-thrus with more than one lane at any business would be considered hot spots (later revised to “Vehicular areas associated with drive-thrus, including restaurants and businesses with multiple drive-thrus.”)

Consensus was reached on all items on page 4 with the exception of hot spot number 7 that references vehicular areas.

II. Hot Spots – Mike MacIntyre

Mr. MacIntyre provided examples of projects that have utilized the mitigation fee or have been eligible to do so and what (if any) categories of hot spots would be triggered. A summary of 22 sites was provided to the members. Mr. MacIntyre received the following questions and comments:

- A. Some members expressed concern that all vehicular areas (not just parking areas) are being considered as part of the hot spot area.
 - Staff has recommended characterizing vehicular hot spot areas as anywhere a vehicle travels. Staff explained that the primary pollutant from vehicular areas is related to metals (more specifically copper) and this can be of concern anywhere brake dust is created.
 - B. Will inclusion of on-site stream erosion and flood protection satisfy any hot spot related requirements?
 - In most cases, yes. As long as there is pretreatment upstream of a detention system, then the hot spot requirement onsite would be met.
 - C. Would electric vehicle parking/charging stations count towards vehicular areas?
 - Yes. Some electric vehicle parking may not be dedicated for only electric vehicles and there is still a concern for pollution from metals.
 - D. Where does the 60% trigger come from?
 - This was chosen based on an analysis of approximately 25 sites by staff. According to GIS staff, 64% of the existing impervious in the County is non-building.
 - E. Can the vehicular ratio calculation be based on the total site area as the denominator (instead of the total impervious area) and also have a trigger based on size of vehicular area in the event the ratio limit is not reached?
 - This was discussed by the members and with staff. Two members of the group will propose an alternative method for calculating the percent vehicular area and bring back to staff prior to the next meeting.
- III. PCSO Stream Quality Assessment – Rusty Rozzelle

Mr. Rozzelle updated the members on the changes made to alternative #2 (quality stream review) and explained that the analysis of the discharge from the site is proposed to be complete at the 10% point as currently used to determine the point of influence for the downstream analysis. Mr. Rozzelle received the following questions and comments:

- A. Concern was expressed that the 10% point may still miss some quality streams if multiple sites within the same drainage area are developed, causing a negative impact on that stream?
 - Staff explained that this analysis and process is only for redevelopment projects that should not be making the stream any worse than today as the impervious area currently exists.
- B. Can staff identify all quality streams within the ordinance jurisdiction?

- Staff explained that this would take years (and a large amount of funding) to complete and that this determination would be temporary as stream quality increases or decreases over time.
- C. Can staff coordinate quality stream identification efforts with volunteers from the community?
- Staff explained that this would likely not be feasible.
- D. Several members expressed that this adds additional costs for the development and this should be discussed when the fee structure is deliberated.

Consensus was reached on alternative #2, quality stream review.

IV. Approval Process – Mike MacIntyre

Mr. MacIntyre explained the current approval process of redevelopment sites and received the following questions and comments:

- A. Several members expressed a need for a pre-approval of redevelopment projects prior to developing a site plan to submit for full Land Development review or a Land Development Pre-Submittal Meeting.
- Staff will develop a process for this (including turn around times) and send to the members prior to the next meeting.
- B. Can the downstream analysis be more defined?
- Staff will examine the current process and look into possible changes to the process and current documentation.

V. Closing and Adjournment – Rusty Rozzelle

Mr. Rozzelle explained that alternative #4 (green roof built upon area reductions) has been removed as an alternate after discussion between staff and the member of the group who proposed this alternative. This leaves only one additional alternative to deliberate on once the remaining issues are resolved for alternatives 2 and 3. Mr. Rozzelle reminded Task Force members that any additional alternatives be sent via email to Mr. Rozzelle or Mr. Hammock at least one week prior to the next meeting. There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, July 9, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, July 9, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Nancy Carter
Roger Coates
Nate Doolittle
Marc Houle
Sam Perkins
David Robinson
Rick Roti
Eric Spengler
Steve Wilson
Dr. Jy Wu

ABSENCE: Voting Member

Dr. Craig Allan
Paisley Gordon, Jr.
Ken Szymanski

ATTENDANCE: Alternate

Rob Nanfelt
Bryan Holladay

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock, Speaker
Mike MacIntyre, Speaker
Tom Ferguson
Jordan Miller
Marc Recktenwald
Karen Weatherly

ATTENDANCE: Public Guests

Matt Jones
Nikki Trainham

HANDOUTS:

Stormwater Mitigation Fee Task Force Consensus Documents

Trip Generation Rate by Institute of Transportation Engineers

I. Welcome, Review of Minutes, Consensus Document – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Meeting minutes from June 25th were discussed. One member requested that his specific question about utilizing community volunteers as a source for identifying quality stream segments be included in the minutes. Staff agreed to make the necessary changes. Another question was asked about the language in item I (B) and that the statement be completed or clarified. Staff agreed to make the necessary changes. There being no other comments on the minutes, they were approved pending the above revisions. The approved minutes are posted to the website. Mr. Rozzelle reviewed the consensus documents and the process moving forward. Mr. Rozzelle opened the floor for deliberations on the staff proposal for vehicular hot spots. The following questions and/or comments were received:

- A. Would parking payment stations be considered hot spots?
 - Yes, if there are at least two lanes (to be interpreted as drive-thrus).
- B. Why has the recommended threshold for hot spot determination been revised to 50% (from the previous 60%)?
 - This change was due to the revision to base the ratio on total site area instead of total built upon area. This seemed to be an appropriate threshold for this ratio based on the data for the entire site areas shown at the previous meeting. Staff agreed to provide additional information at the next meeting.
- C. Explain the background for the one acre threshold on vehicular areas to be included in hot spots along with the 50% ratio threshold.
 - This is recommended by staff based on the comments received during the last meeting in regards to needing an acreage threshold as well. Staff agreed to provide additional information at the next meeting.
- D. Some members expressed concerns about the all-encompassing approach of all pavement areas being considered vehicular.

After additional discussions regarding the staff recommendation, Mr. Rozzelle proposed a new method to determine vehicular hot spots based on trip generation studies categorized by land use (see handout). The following questions and/or comments were received:

- A. Some members expressed a need to include schools in the hot spot land uses.
- B. Several members prefer the simplicity of including certain land uses as opposed to the previous method of creating thresholds based on vehicular area.
- C. Several members asked what the term “turnover” referred to in the handout.

- A public attendee explained that he believes the high turnover mentioned in the handout references pharmacies, banks, and other similar uses with high traffic.
- D. Is the data on the handout local?
- Not specifically; this is a national average.
- E. One member asked if including certain land uses in the vehicular hot spot category would prevent these types of sites from utilizing the redevelopment option and pushing those towards greenfield development.
- Not necessarily. This would only require additional onsite controls; not preclude these land uses from utilizing the mitigation option.
- F. What would this approach to vehicular hot spots replace in the current agreed upon hot spots?
- These land uses would be in addition to the already agreed upon hot spots.
- G. One task force member would like to simplify the land uses by defining hotspots as those areas that are NOT residential or office (based on primary use of the site/project).
- Several members did not agree that all retail should be considered a vehicular hot spot.
 - Several members would like to consider shopping centers as hot spots.
 - One task force member requested additional information about where the threshold of average daily trips (ADT) would be set.
 - One staff member expressed concern over differing units within the chart provided.
 - Several members discussed some assumptions that they were making regarding possible comparable units used in the chart.
 - One task force member expressed a need to allow specialty retail to provide traffic analyses as this category could include a wide range of uses.
 - One task force member expressed that the uses need to be based on currently defined land use types in the local Zoning Ordinance.

Mr. Rozzelle asked the members if they could identify certain uses that are recommended by staff to not be included as a hot spot that they would like to consider for inclusion. The following uses were identified by the members as needing discussion:

- Medical/Dental
- Schools

Mr. Rozzelle then asked the members if they could identify certain uses that are recommended by staff to be included as a hot spot that they would like to

consider for exclusion. The following uses were identified by the members as needing discussion:

- Discount Club
- Restaurant
- Movie Theater
- Specialty Retail
- Daycare
- Banks
- Schools

Based on the uses identified by the members, deliberations continued for each identified use.

A. Schools

- After discussions between members and staff, it was determined that schools would not be considered a hot spot, but that daycare facilities would be.
- One member mentioned that churches are not shown on the provided use chart. Members agreed that churches with daycare facilities would be considered a hot spot.

B. Discount Club/Restaurant

- One member expressed concerns with discount clubs that have fueling stations on site. These fueling areas would be considered a hot spot based on an earlier agreed upon hot spot category.
- One member explained that he believes discount clubs and grocery stores would both be considered a shopping center as it is based on square footage. Staff can confirm for the next meeting. (Staff Note – grocery stores and discount clubs have their own trip generation rates in the 8th Edition of the Institute of Transportation Engineers Trip Generation Report.)

After more discussions, Mr. Rozzelle proposed the following uses be considered for consensus of vehicular hot spots:

- Shopping centers
- Restaurants and gas stations
- Convenience stores
- Stand-alone fitness centers
- Daycare
- Medical/Dental
- Other uses generating a high traffic volume to be determined by the Stormwater Administrator

Several members expressed objections to the above list of uses and it was determined that staff would bring back more information about the trip generation data for locally recognized uses. Mike MacIntyre mentioned that the uses that have been discussed closely coincide with the uses that would be considered hot spots based on the 50% ratio threshold for total BUA to site area as discussed at the beginning of the meeting. Consensus could not be reached on that method.

II. Closing and Adjournment – Rusty Rozzelle

Mr. Rozzelle explained that staff will provide additional information regarding the trip analysis approach to vehicular hot spots and deliberations can continue on this alternative at the next meeting. One task force member asked if we could discuss the fee amount first in case that could allow some members to come to consensus on the hot spots. Mr. Rozzelle stated that we need to continue in the order in which was originally agreed upon. There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, July 23, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, July 23, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Dr. Craig Allan
Nancy Carter
Roger Coates
Nate Doolittle
Paisley Gordon, Jr.
Marc Houle
David Robinson
Rick Roti
Eric Spengler
Ken Szymanski
Steve Wilson

ABSENCE: Voting Member

Sam Perkins
Dr. Jy Wu

ATTENDANCE: Alternate

Joe Padilla
Emilee Syrewicze

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock
Mike MacIntyre
Tom Ferguson
Jordan Miller
Marc Recktenwald
Tim Richards
Karen Weatherly

ATTENDANCE: Public Guests

Nikki Trainham

HANDOUTS:

Stormwater Mitigation Fee Task Force Consensus Documents

I. Welcome, Review of Minutes, Consensus Document – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Meeting minutes from June 25th were discussed. These minutes were approved without additional comments. Meeting minutes from July 9th were discussed. One member asked for clarification from staff on items I. B and C as they felt staff had not explained the rationale sufficiently. Mr. Rozzelle provided an explanation and agreed to add the following to the minutes: “Staff agreed to provide additional information at the next meeting.” There being no further comments, these minutes were approved pending the agreed upon changes. The approved minutes are posted to the website. Mr. Rozzelle reviewed the consensus documents and the process moving forward. Mr. Rozzelle opened the floor for deliberations on staff’s proposal for vehicular hot spots. The following questions and/or comments were received:

- A. Can you explain why the Average Daily Trip (ADT) method was abandoned as a basis for this threshold?
 - The available monitoring data is not sufficient enough to provide an accurate correlation between vehicle trips and actual pollutant load or concentration from specific land uses. This method would also involve additional cost to the developer (and City staff time to implement) and uncertainty in early stages of the development process.
- B. A member asked to base the information brought to the task force on citywide data instead of the select projects used up to this point.
 - Staff responded that citywide data would be irrelevant as the task force charge is related to one district and is related to redevelopment projects only. An analysis on existing development is not meaningful as redevelopment data can only be obtained by analyzing redeveloping sites.
- C. Can you explain the last column, titled “Stream Erosion and Flooding Protection Provided Onsite”?
 - The values in this column indicate whether the site installed onsite controls for stream erosion and flood protection (detention).
- D. Explain the rationale for the \$1,000/catch basin insert deduction from the fee.
 - This amount is based on the cost to install each catch basin insert based on staff research.
- E. Explain primary use (>50% of site) and how this would be implemented.
 - If >50% of the land use on a redevelopment site is associated with retail development, then the vehicular areas on the site are considered hot spots.
- F. How does the cost of “other water quality control measures” approved by the Stormwater Administrator compare to those of catch basin inserts?

- We do not have cost data as this category is reserved for future technology or devices that we have not seen yet.
- G. Can staff determine citywide applicability of this condition (redevelopment with >50% retail vehicular area)?
- It would be very difficult (if not impossible) to determine all sites within the city that will redevelop in the future, and to determine which of these redevelopments would result in vehicular areas serving >50% retail uses.
- H. Would big box retail (like that on Independence Blvd) being converted to multifamily need on site controls under this provision?
- Strictly speaking to the requirement of catch basin inserts or other pretreatment devices; these would likely not be required under any currently proposed vehicular area hot spot criteria's if the primary use of the site were to be multi-family residential. Other on site controls for stream erosion and flood protection would be evaluated by the processes currently in the manual and any additional requirements (i.e. quality stream review) as a result of this task force process.

Mr. Rozzelle called for a vote of consensus on this alternative. Only five members voted to accept this alternative. Mr. Rozzelle asked several members why they could not come to consensus on this alternative. The following comments were received:

- If on site controls are provided, then the fee should go down.
- Do not agree with the \$1,000 deduction in fee.
- Disagree that hot spot criteria cannot be directly correlated to trip analysis.

Mr. Rozzelle explained that the process would move forward tabling this alternative as consensus could not be reached.

II. Alternatives 3 and 4 (Approval Process and Fee Amount) – Rusty Rozzelle

Mr. Rozzelle explained that many members have expressed that the amount of the fee is directly tied to the allowance of the fee through the approval process. Hence, these two alternatives should be combined and deliberated concurrently. Mr. Rozzelle has asked all members to provide conditions on which they would come to consensus on the approval process and fee amount. Those conditions that have been provided prior to the meeting were shown in a table on the screen for the members to see. Mr. Rozzelle explained that each condition would be explained by the member who presented it and two votes would be taken for each condition. The first vote would be to ask what members can come to consensus (can live with) the condition. The second vote would be to ask what members cannot negotiate on this condition at all (it is not an option). The conditions and voting results are shown in the attached table. After all of the conditions were

voted on, Mr. Rozzelle pointed out that there only appear to be three conditions that could be deliberated on for consensus. That being the case, there would be no overall consensus as some conditions are contingent on one another. Mr. Rozzelle asked the task force members if they thought consensus was obtainable and a discussion took place between the members. Mr. Rozzelle then asked members to provide any additional proposals in order to reach consensus within the next two weeks (by August 6th) so that staff can prepare any needed information for the next meeting. Staff will also work on a path forward in the event that consensus cannot be reached by the group. Mr. Rozzelle indicated that the table would be sent out to the task force members on Friday and that all members should discuss the results with their constituents. All members and their constituents need to decide if there is any middle ground to work towards on any of the conditions or additional proposals.

III. Closing and Adjournment – Rusty Rozzelle

There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, August 13, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

Stormwater Mitigation Fee Task Force Conditions for Use of the Fee and Establishing the Fee Amount July 23, 2015

#	Condition	Sponsor	# Consensus	# Non-negotiable
1	In order to use the fee option, 20% or less of the parcel is paved surface for the purpose of parking or moving motorized vehicles when the project is complete.	Eric Spengler (Sustain Charlotte)	5 Eric, Emilee, Nancy, David, Rick	5 Nate, Ken, Paisley, Steve, Marc
2	Pollution filters are installed in all stormwater drains in vehicular areas across the parcel and maintained at the parcel owners cost; if the parcel is sold this responsibility is passed on to the next owner.	Eric Spengler (Sustain Charlotte)	6 Eric, Emilee, Nancy, David, Rick, Roger	0
3	The highest possible fee paid per acre is \$160,000 (the current fee per acre in Portland, OR); the fee will increase each year at a rate equivalent to the published rate of inflation, or the average annual increase in property values across the city, whichever is greater.	Eric Spengler (Sustain Charlotte)	6 Eric, Emilee, Nancy, David, Rick, Roger	5 Nate, Ken, Paisley, Steve, Marc
4	For partial on-site mitigation, the total fee will be reduced by a % equivalent to the % of storm water that is mitigated on site. For example, if on-site devices will reduce expected stormwater runoff by 20%, the fee will be reduced by 20%.	Eric Spengler (Sustain Charlotte)	5 Dr. Allan, Emilee, Rick, David, Nancy	0
5	The larger the impervious area percentage of total lot size the higher the fee required.	Rick Roti (CPTF)	5 Eric, Emilee, Rick, David, Nancy	5 Nate, Steve, Ken, Paisley, Marc
6	Full compliance with the ordinance should be required when lots are above a certain size where detention and pollution removal is more easily accomplished due to space available.	Rick Roti (CPTF)	5 Rick, Roger, Emilee, David, Eric	2 Steve, Paisley

#	Condition	Sponsor	# Consensus	# Non-negotiable
7	Significantly increase the fee (number TBD; other cities have much higher values) and index it to inflation.	Sam Perkins (CRF)	5 Eric, Emilee, Rick, David, Nancy	5 Nate, Steve, Ken, Marc, Paisley
8	Require any site utilizing the fee to install filters in stormwater intake grates.	Sam Perkins (CRF)	6 Emilee, Roger, Eric, Rick, David, Nancy	3 Nate, Steve, Paisley
9	Disallow use of the fee for sites with significant (number TBD) acreage or impervious surface area.	Sam Perkins (CRF)	5 Eric, Rick, Emilee, Roger, David	2 Paisley, Steve
10	Significantly reduce the fee to mirror City's actual cost of recovery.	Ken Szymanski (CAA)	5 Ken, Marc, Steve, Nate, Paisley	4 Emily, Rock, David, Nancy
11	Reduce the fee by 50% for sites that install any onsite controls (excluding catch basin inserts)	Nate Doolittle (NAIOP)	5 Paisley, Nate, Steve, Marc, Ken	1 Rick
12	If sites have physical constraints (e.g. – no adjacent stormwater infrastructure), onsite controls can be waived by the stormwater administrator (fee is still paid)	Nate Doolittle (NAIOP)	7 Paisley, Nate, Steve, Ken, Roger, Marc, Dr. Allan	0
13	The availability of a mitigation fee is linked to the infeasibility of onsite mitigation (to be negotiated).	Eric Spengler (Sustain Charlotte)	4 Eric, Emilee, Rick, David	5 Nate, Steve, Ken, Marc, Paisley

Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, August 27, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Dr. Craig Allan
Nancy Carter
Roger Coates
Nate Doolittle
Marc Houle - Speaker
Sam Perkins
Rick Roti
Eric Spengler
Steve Wilson

ABSENCE: Voting Member

Paisley Gordon, Jr.
David Robinson
Ken Szymanski
Dr. Jy Wu

ATTENDANCE: Alternate

Steve Copulsky
Rob Nanfelt
Joe Padilla

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock, Speaker
Mike MacIntyre, Speaker
Jordan Miller, Speaker
Tom Ferguson
Marc Recktenwald
Tim Richards
Karen Weatherly
Hyong Yi

ATTENDANCE: Public Guests

Matt Jones
Nikki Trainham

HANDOUTS:

Stormwater Mitigation Fee Task Force Consensus Documents

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Meeting minutes from July 23rd were discussed. These minutes were approved without comments.

II. Redevelopment Process and Alternative Presentation – Marc Houle

Mr. Houle provided two example sites and explained the process that a developer goes through in order to receive approval to redevelop a site within the City of Charlotte. The two sites used as an example were a 7-Eleven and USPS Post Office on Wendover Road. Mr. Houle received the following questions during his presentation:

- A. What was the impervious percentage for the previous development and the redevelopment?
 - These numbers were not available at the time of the meeting. However, the existing paint store site was 44% impervious and the redeveloped site is 71% impervious and added 12,768 square feet of impervious coverage.
- B. Can you explain the detention system used on the 7-Eleven site?
 - This system consisted of connected large metal arch pipes with an outlet structure to provide a controlled release of the runoff from the site.
- C. Could the site have been built up to provide an opportunity for more depth for the detention system?
 - The site was raised some, but there is a limit to how much a site can be raised. Aside from the economics involved, raising the site could cause issues with drainage and site access.
- D. Did you have to look at the downstream outfall?
 - Not from a quality stream perspective as that is not part of the current PCSO process. However, this downstream system consists of a great deal of pipes and no quality stream segments.
- E. How would this site have changed if full onsite controls were required?
 - Mr. Houle explained that the site likely would not have been redeveloped due to constraints of the available existing infrastructure to tie into.
- F. One task force member expressed concern about secondary pollutants.
 - Secondary pollutants were further discussed in the later presentation from Mr. Hammock.

G. How is the detention system sized?

- The system is sized to provide enough volume and flow reduction to mimic undeveloped site conditions.

Mr. Houle then gave an overview presentation of the proposal for consensus shown in the Consensus Document handout. There was discussion about this proposal and the following questions were received:

A. How effective are catch basin inserts?

- Several task force members and staff indicated that they are not nearly as effective as traditional stormwater control measures, often times due to maintenance issues.

B. Can you clarify the acreage cap for the use of the fee (BUA or site size)?

- This was initially meant to be a site size cap, but that can be discussed in the deliberations.

One item that was not shown in the Consensus Document was a proposed 50% reduction in mitigation fee when detention is provided on site.

III. Surface Water Pollutants – Daryl Hammock

Mr. Hammock provided a presentation reviewing some of the information that was shared earlier in the process about surface water pollutants. He received the following questions:

A. What is the primary bacteria source?

- Humans are the primary source for bacteria in our surface waters. This is presumably due to sanitary sewer overflows. Other sources include pets and wildlife.

B. Does 85% TSS removal remove metals?

- Yes, suspended metals would be removed. To the extent dissolved metals exist, they would not be removed.

C. Does runoff from parking areas have suspended solids?

- Yes.

IV. City Parcel Analysis – Jordan Miller/Mike MacIntyre

Mr. Miller presented data from a parcel analysis performed by staff at the request of a task force member to provide some context as to how many parcels may be

effected by the redevelopment mitigation option under PCSO. Clarification was provided as needed.

Mr. MacIntyre answered a question that was asked previously by the task force:

- A. What happens if a project is developed in 2015 with stormwater controls and is redeveloped in the future? What happens to the stormwater controls?
- The stormwater controls would be required to remain or be replaced due to the ordinance definition of redevelopment: *Redevelopment means any land-disturbing activity that does not result in a net increase in built-upon area and that provides greater or equal stormwater control than the previous development.*
 - As a point of clarification, the allowable increase of up to 20,000 ft² of BUA is specified in the current ordinance section 18-161(c):
“...projects involving redevelopment of existing built-upon-area and the cumulative addition of less than 20,000 square feet of new built-upon-area...”

V. Closing and Adjournment – Rusty Rozzelle

Mr. Rozzelle asked members of the task force if there is any additional data they would need prior to the next meeting to prepare them for deliberations on the latest proposal. The following items were requested:

- Removal efficiencies of catch basin inserts
- Approved redevelopment mitigation project data:
 - Number of sites
 - Total fees collected
 - Number of sites providing onsite controls (and what form of controls)
- Provide additional information/data on the number of sites that may have a practicability issue if redeveloped.
 - This was discussed amongst the task force and staff and is not obtainable. This would require significant staff time and very large monetary resources to produce, if at all possible. The data required (existing infrastructure, future design depth of detention systems, etc) is either not available or very expensive to obtain.



600 E. Fourth Street
Charlotte, NC 28202
Fax 704.353.0473

There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, September 10, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.



To report pollution or drainage problems, call: 311
<http://stormwater.charmeck.org>



Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, September 10, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Roger Coates
Paisley Gordon, Jr.
Marc Houle
Sam Perkins
Rick Roti
Eric Spengler
Ken Szymanski
Steve Wilson

ABSENCE: Voting Member

Dr. Craig Allan
Nancy Carter
Nate Doolittle
David Robinson
Dr. Jy Wu

ATTENDANCE: Alternate

Steve Copulsky
Joe Padilla

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock
Tom Ferguson
Mike MacIntyre
Jordan Miller
Marc Recktenwald
Tim Richards
Karen Weatherly
Hyong Yi

HANDOUTS:

Stormwater Mitigation Fee Task Force Consensus Proposals
ETJ Parcel Data Slides

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Meeting minutes from August 27th were discussed. These minutes were approved without comments.

II. Consensus Proposals – Rusty Rozzelle, Eric Spengler, Marc Houle

Mr. Rozzelle introduced the two proposals from two groups of members of the task force for the group to consider. These proposals can be seen on the attached document. Mr. Spengler and Mr. Houle further explained the proposals and received the following questions and comments:

A. Why should sites adjacent to the floodway be exempt from providing detention?

- Members of the task force and staff both provided reasoning for this that relates to timing of the runoff from upstream properties and the release of runoff from the subject site and how detention could effectively increase peak flows to a large (>640 acres drainage area) stream. This exemption is similar in principle to the Ten Percent Rule. Several members of the task force requested further explanation from staff or the academia members of the task force. Section 4.6 of the [Georgia Stormwater Management Manual](#) (beginning on page 4.20) is duplicated in many manuals in the US and provides information on why drainage area is considered in a downstream analysis.

B. What water quality benefits are accomplished with the eight items provided earlier in the hot spot discussion?

- Staff explained that many of these measures do not currently have a pollutant removal efficiency assigned to them and others would likely not be installed per the requirements in the BMP Manual and would therefore not receive the full pollutant removal assigned to them. Staff will research and provide estimated pollutant removal rates for measures to be provided by sites where detention is not provided. The subject measures are shown below:

1. Catch Basin Inserts or Sumps
2. Oil/water separators/hydrodynamic devices
3. Stormwater Filters
4. Trash/Debris Collectors in Catch Basins
5. Vegetated Swales/Filter Strips
6. Constructed Wetlands
7. Stormwater Collection and Reuse
8. Other controls approved by Stormwater Ordinance Administrator

- C. How efficient are catch basin inserts?
- City staff has researched the costs and efficiencies of these BMPs in testing and studies around the nation and has not found favorable results. The main issues in many cases arise from maintenance concerns as these BMPs can clog easily from leaves and debris and generally require frequent inspection, enforcement, and maintenance. This results in high costs to ensure effectiveness. Pollutant removal rates for many catch basin inserts are unproven and local testing would be required to accurately assign a pollutant removal rate.
- D. One task force member expressed concern with using only TSS as a pollutant removal target and suggested staff look for measures that will remove other pollutants.
- Staff explained that the surface water quality industry is driven by TSS removal. TSS is a nationally accepted surrogate for a wide range of pollutants. Stormwater control measures that remove TSS also remove a range of pollutants. TSS and the pollutants closely associated with TSS are the pollutants that are affecting surface waters in Charlotte. The local design manual is based on TSS and total phosphorous removal efficiencies for these reasons. Staff also agreed to ask Dr. Allan to present research on this item at the next meeting (September 24).
- E. Can the mitigation fee amount be indexed to inflation?
- Two taskforce members pointed out that the "Eric" proposal had missing provisions including indexing to inflation. Rusty acknowledged the omission and it was agreed that indexing was a key provision in the proposal.
- F. Several task force members expressed concern with the 10% rule being utilized as a test for whether detention would be required on-site as this would exempt a large number of sites from the detention requirement.
- The 10% point is a widely used and accepted method of identifying an analysis point where the effects of a development (or of onsite detention measures) would have minimal effect on the overall watershed. Due to the timing of the flows in the system, on-site detention can actually increase the peak flows seen in a large stream. Several task force members asked for more information on this topic. Staff agreed to provide more detail at the next meeting and to ask Dr. Allan to present on this item at the next task force meeting (September 24).
- G. There was discussion of the pretreatment requirements for an underground detention system and what pollutant removal rates could be associated with this pretreatment.

- The current requirements for underground detention would not likely remove equivalent pollutants as the above ground requirements but would more likely be efficient in removing floatables and oils/grease. This requirement can be modified to allow for more sediment storage and a prescribed pump out interval in the maintenance requirements.

Several members preferred to not discuss the fee amounts for sites without controls until the fees can also be discussed for sites with controls. Further information about partial onsite treatment will be provided by staff. Mr. Rozzelle then asked if the members of the task force could agree that the reduction in fee be based on removal of pollutants (target pollutants to be determined). This was agreed upon by all members. There was further discussion about the use of disturbed area in lieu of parcel size on projects that are only redeveloping a portion of the property. This discussion was shelved for the next meeting to allow task force members more time to weigh the consensus proposals.

III. Closing and Adjournment – Rusty Rozzelle

There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, September 24, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

**Stormwater Mitigation Fee Task Force
Middle Ground Proposal
9/10/15**

**Alternative #1: Onsite Water Quality Control Measures &
Alternative #2: Quality Stream Review**

Marc's Proposal	Eric's Proposal	Compromise Proposal
<p>1.All sites will be evaluated by the Storm Water Administrator to determine if 1-year, 24-hour volume control and 10-year, 6-hour peak control with pretreatment to achieve the water quality goals described below⁽¹⁾ will be required based upon a downstream analysis including current parameters and the addition of the quality stream assessment.</p>	<p>1.All sites will provide 1-year, 24-hour volume control and 10-year, 6-hour peak control with pretreatment to achieve the water quality goals of 30% Total Suspended Solids (TSS) and 30% Total Phosphorus (TP) removal efficiencies.</p>	<p>1.</p>
<p>(Exception to #1) a.Storm Water Administrator determines that physical conditions at the site preclude compliance with this requirement. Examples include brownfield sites, sites with major utility conflicts, inadequate or shallow adjacent storm water infrastructure, and etc. b.Project discharges directly to a FEMA stream (draining ≥640 acres).</p>	<p>(Exception to #1) a.Storm Water Administrator determines that physical conditions at the site preclude compliance with this requirement. (Note: Examples include brownfield sites, sites with major utility conflicts, inadequate or shallow adjacent stormwater infrastructure, etc.) b.This means that the 10% rule is inapplicable and all sites comply.</p>	<p>(Exception to #1) a.</p>
<p>2.Sites greater than five (5) acres will not be eligible for this mitigation.</p>	<p>2.Sites greater than three (3) acres will not be eligible for this mitigation fee option and otherwise must comply fully with on-site volume and water quality controls.</p>	<p>2.</p>

(1) Water Quality Goals: Temporarily store incoming storm water, trapping suspended pollutants, reducing the peak discharge, and achieving a 30% Total Suspended Solids and 30% Total Phosphorus removal efficiency.

Alternative #3: Fee

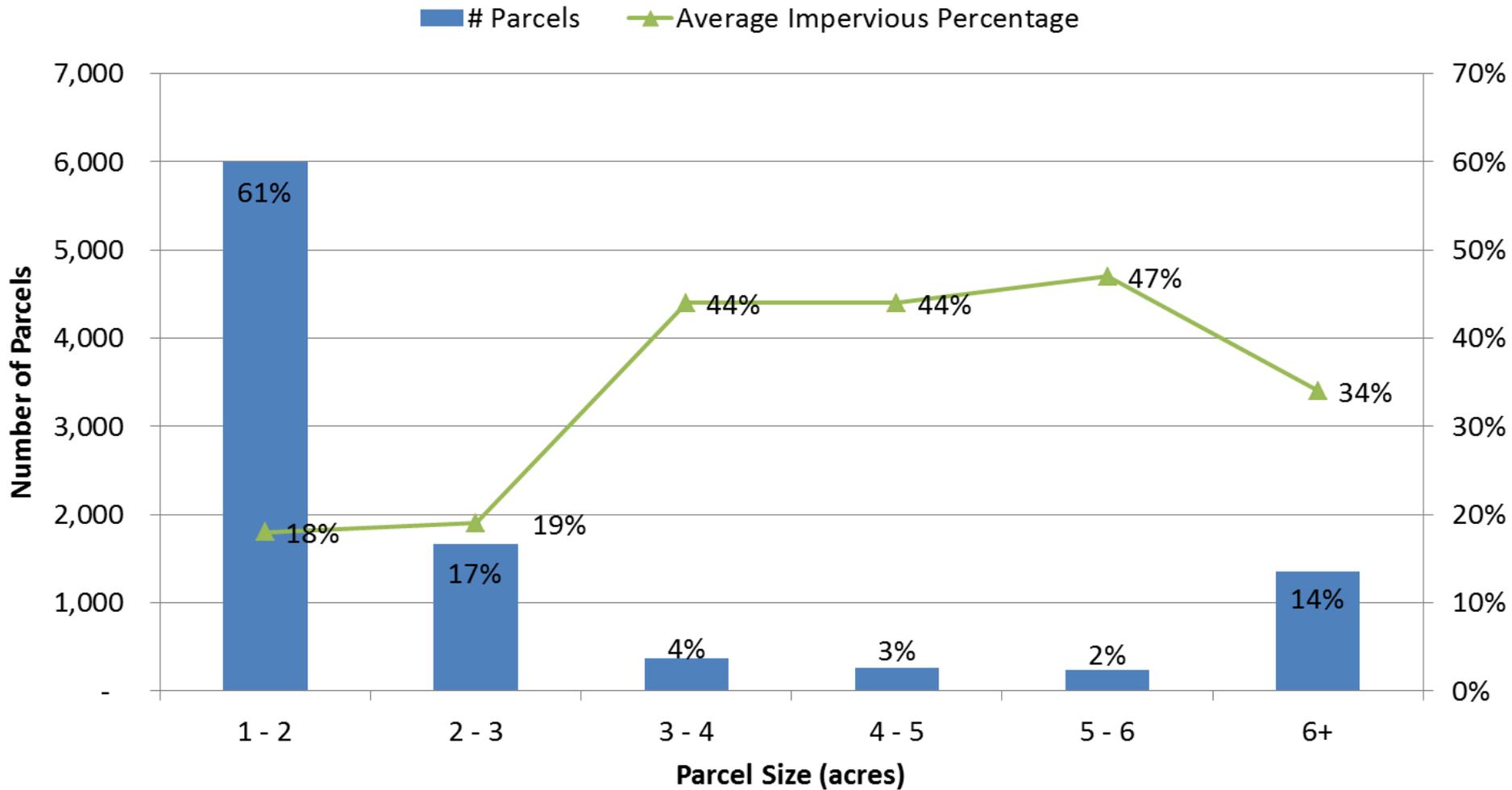
The table below describes the current fee structure and the proposals offered by the City as well as Eric Spengler’s and Marc Houle’s counter proposals.

Site Description(1)	Current Fees	Marc’s Proposal	Eric’s Proposal	Compromise Proposal
With Controls				
1 st acre	\$60,000(2)	\$35,000(3)	\$54,000(3)	
>1 acre and <3 acres	\$60,000(2)	\$35,000(3)	\$54,000(3)	
≥3 acres and ≤5 acres	\$60,000(2)	\$35,000(3)	Full Compliance or \$120,000(3)	
Without Controls				
1 st acre	\$60,000	\$75,000	\$80,000	
>1 acre and ≤3 acres	\$90,000	\$100,000	\$120,000	
>3 acres and ≤5 acres	\$90,000	\$100,000	\$160,000	

Notes:

- (1) Applies to site area and not built-upon area. If the redevelopment site area is on a larger existing development site, then the area disturbed for the redevelopment will be considered as the site area and not the total area of the existing development.
- (2) Install onsite controls to achieve 1-year, 24-hour volume control and 10-year, 6-hour peak control.
- (3) Install onsite controls to achieve 1-year, 24-hour volume control and 10-year, 6-hour peak control in accordance with the Extended Dry Detention design criteria contained in Chapter 4.9 of the Charlotte-Mecklenburg BMP Design Manual, which includes 30% Total Suspended Solids (TSS) and 30% Total Phosphorus (TP) pollutant removal efficiencies.
- (4) Only sites where the Storm Water Administrator determines that physical and/or hydrologic conditions preclude the installation of onsite controls will be allowed to forego the installation of these controls and will be required to pay the increased fees as indicated in the above table.

Parcel Impervious Percentage





Parcel Size by Land Use

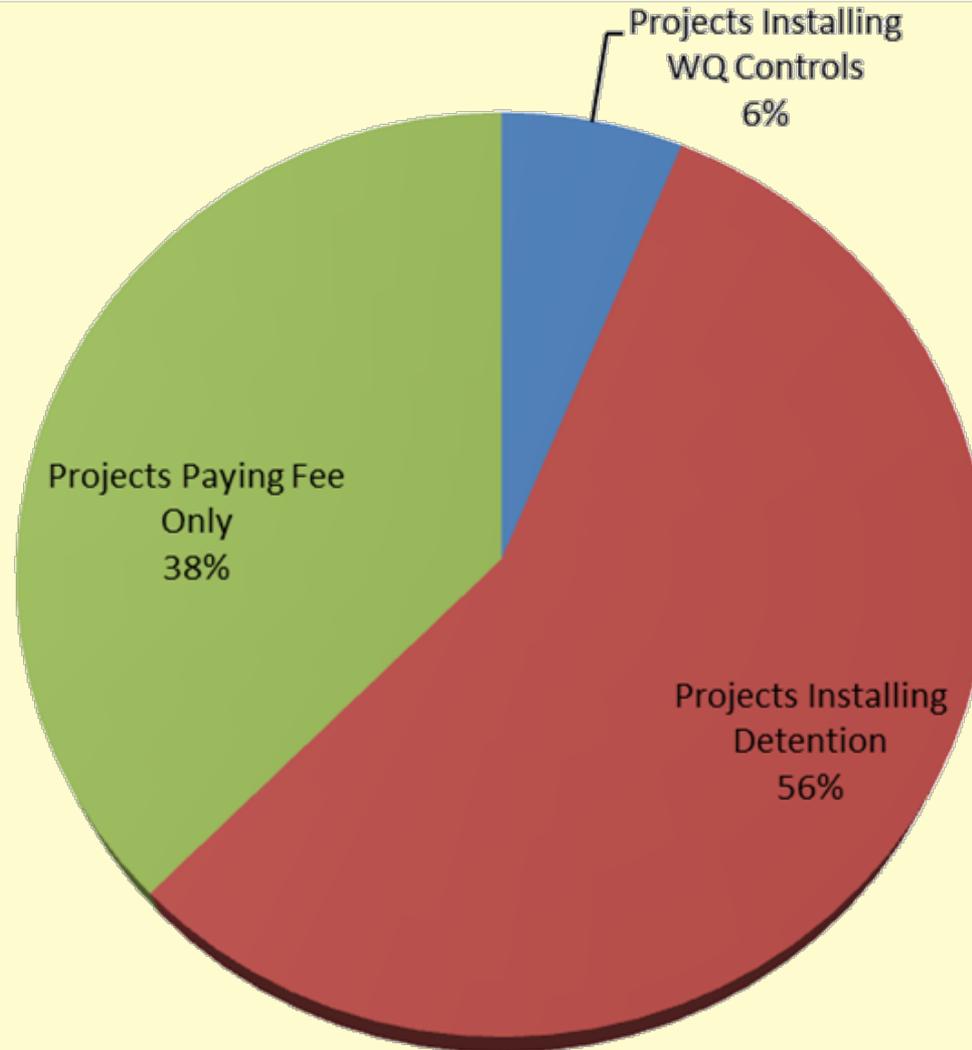
Land Use	Range						Totals
	1 - 2	2 - 3	3 - 4	4 - 5	5 - 6	6+	
Civic/Institutional	129	81	69	74	41	300	694
Horizontal Mixed Use Non-Residential	14	8	3	6	6	28	65
Horizontal Mixed Use Residential/Non- Residential	0	2	0	0	0	3	5
Industrial	35	27	25	10	25	135	257
Multi-Family	131	72	66	46	43	320	678
Office	188	104	52	52	44	155	595
Parking	2	2	1	0	1	4	10
Retail	374	125	64	24	27	128	742
Single Family - Attached	11	3	2	1	0	3	20
Single Family - Detached	4983	1152	12	7	4	24	6182
Transportation	2	4	2	1	0	19	28
Vertical/Mixed Use	7	4	3	2	2	5	23
Warehouse/Distribution	121	78	64	38	48	225	574
Totals	5997	1662	363	261	241	1349	9873



Redevelopment Mitigation Projects

Project Name	Project Acres	Pre-Project BUA	Total New BUA Ac.	Compliance Category	Control Measure Type	Approved Redevelopment Mitigation Fee
Circle University City Apts.	4.93	2.11	3.77 (2.11 Mitigated)	Redevelopment Fee and Full Compliance	Underground Detention	\$159,900
7-Eleven N Wendover	1.07	0.47	0.76	Redevelopment Fee and Peak/Volume	Underground Detention	\$45,600
Drexel Place Apts.	1.13	0.63	0.89	Redevelopment Fee and Peak/Volume	Underground Detention	\$53,400
Duke Endowment	1.77	1.67	1.26	Redevelopment Fee and Peak/Volume	Detention	\$75,600
Hendrick Luxury Collision Center	6.98	0.80	0.80	Redevelopment Fee and Peak/Volume	Underground Detention	\$47,800
Hendrick Motors of Charlotte Autohaus	5.37	5.37	4.67	Redevelopment Fee and Peak/Volume	Underground Detention	\$280,000
McDonald's - Wendover	1.68	1.03	1.10	Redevelopment Fee and Peak/Volume	Underground Detention	\$65,960
South Kings Midtown	2.53	1.42	1.88	Redevelopment Fee and Peak/Volume	Underground Detention	\$112,800
Southpark Autobell	1.8	0.52	0.90	Redevelopment Fee and Peak/Volume	Underground Detention	\$54,000
Kenwood Myers Park	1.03	0.20	0.65	Redevelopment Fee and WQ Controls	Permeable Pavers/Infiltration	\$30,600
7 Eleven #35580 Pineville Matthews Rd	1.19	0.67	0.59	Redevelopment Fee Only	N/A	\$33,200
Bank of the Ozarks	1.03	0.80	0.79	Redevelopment Fee Only	N/A	\$47,400
Charlotte Catholic High School	4.00	2.67	2.85	Redevelopment Fee Only	N/A	\$226,410
Crescent Dilworth	2.48	1.74	1.88	Redevelopment Fee Only	N/A	\$138,750
Harris Teeter - Ballantyne	15.84	0.96	1.00	Redevelopment Fee Only	N/A	\$60,000
Stratford Apartments Revision	6.75	3.74	3.26	Redevelopment Fee Only	N/A	\$265,200
16	60	1.55	27.04			\$1,696,620

Redevelopment Mitigation Projects



Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, September 24, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Dr. Craig Allan - Speaker
Nancy Carter
Roger Coates
Nate Doolittle
Paisley Gordon, Jr.
Marc Houle
Sam Perkins
Rick Roti
Eric Spengler
Ken Szymanski
Steve Wilson
Dr. Jy Wu

ABSENCE: Voting Member

David Robinson

ATTENDANCE: Alternate

Steve Copulsky
Rob Nanfelt

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock
Mike MacIntyre
Jordan Miller
Marc Recktenwald
Karen Weatherly

HANDOUTS:

Stormwater Mitigation Fee Task Force Consensus Documents
Minutes from September 10th Task Force Meeting
Stormwater Mitigation Fee Task Force Middle Ground Proposal
Consensus Building Table

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting with a reflection on what has transpired to this point and reinforced the charge that the task force was given from City Council. This included reminding members that we need to come to a compromise that is best for the City of Charlotte and not necessarily what is best for one interest group.

Meeting minutes from September 10th were discussed. The following comments were received:

- Consensus was not reached on the maximum site size that can utilize the mitigation fee option
- Add catch basin insert discussion
- Attach the handouts to the minutes
- Add discussion about indexing the mitigation fee to inflation
- Some members do not agree with the utilization of the 10% rule to determine if detention is required
- Add discussion about sump system for underground detention
- Expound on TSS reasoning as the pollutant removal benchmark

Staff indicated that the above changes would be made and the revised minutes sent to all task force members for consideration at the next meeting.

II. 10% Rule Origin and TSS as an Indicator Pollutant – Dr. Craig Allan

Dr. Allan presented on the origins and applications of the 10% rule as well as the use of TSS as an indicator pollutant. This presentation and the references within it will be posted on the website. Dr. Allan received the following questions and comments during his presentation:

- A. Is the research shown in the presentation what the local manual is based on as well?
- Yes, the local manual is mostly based on the same principles and research shown in the presentation.
- B. Does the 10% rule mean that 10% of the area is developed (or impervious)?
- Dr. Allan explained that the intent of this research is to show that if the on-site drainage area is 10% or less of the watershed to the analysis point, then the impact is insignificant.
- C. What if many of the sites within the overall watershed draining to the 10% point develop over time, would this not create a problem?

- As each site develops, a new analysis would be required and the impacts to the system may require detention if the site in question negatively impacts the system.
- D. How is the assessment performed?
- Dr. Allan explained that hydrologic modeling of the pre-developed watershed is performed at different points to determine if the developed site will cause an adverse impact to the receiving stream/system.
- E. Is imperviousness considered in the modeling?
- Dr. Allan explained that a curve number (a number used in hydrologic design) is assigned to each part of the drainage area to represent the imperviousness and soil type of all areas within the watershed. Additionally, (and Dr. Allan stated this may be more vital) a time of concentration is calculated to represent the time it takes the runoff within the watershed to reach the point of analysis.
- F. As flow increases with development of the watershed, wouldn't that allow for more development without impact?
- Dr. Allan explained that the analysis would run to the 10% point and as the watershed develops, the impact would increase thus resulting in eventual detention requirements. Staff later added that any increase of impervious area will result in required detention.
- G. Can you receive a detention waiver if there is inadequate infrastructure for the redevelopment to connect to?
- Typically, yes. However, if there are any downstream issues (flooding, erosion, etc.) these would be evaluated on a case-by-case basis.
- H. If the 10% analysis shows little to no impact to the system, is detention always waived?
- Not necessarily. There are other things that staff and the designer would look at including downstream flooding issues and channel erosion.
- I. If detention is required at all times but not enforced in practice due to inadequate storm drainage, we need to know where the inadequate infrastructure is located.
- The inadequate infrastructure waiver would involve knowing what is needed for each individual site (depth of detention system, grading of site, etc.) and therefore would be near impossible to predict as redevelopment could theoretically occur on many sites in many forms. This analysis would be speculative, take months to complete and be very expensive.
- J. One task force member indicated that the inadequate infrastructure issue was not a large issue due to the fact that only one out of the 16 sites that have used

- the fee did so due to this reason. However, they would still strive to make things better on the site than what was there previously.
- K. One task force member indicated in his experience that if a site develops downstream of a previously developed site that did not have detention, then the downstream site could be required to provide detention.
- L. What well-designed structural controls exist?
- Many manuals exist with BMPs available in them. The local BMP manual has nine approved BMPs as well as guidance for innovative BMPs that may be approved on a case-by-case basis.
- M. TSS does not seem like it would be an issue from a developed site.
- TSS is used as an indicator pollutant as it can predict the removal efficiencies of other pollutants as well. Dr. Allan expressed that in his experience sediment is a major issue on roadways and that TSS carries metals and would therefore be removed to a degree.
- N. What percentage of other pollutants is removed from the runoff when 80% of TSS is removed?
- Dr. Allan explained that this would depend on the concentrations and changes between rain events.
- O. One task force member indicated that they did not think that 85% TSS removal is very helpful and would rather concentrate on other pollutants.
- P. One task force member expressed that in their opinion redevelopment sites without controls may not be making the downstream system worse, but they are not making it better.
- Q. One task force member expressed that in their opinion redevelopment is good for the City and should be incentivized more.
- R. Does the EPA not direct municipalities to restore watersheds?
- Yes, staff's main concern is restoration on a large scale. Sometimes on site controls may not be the best use of resources for the watershed as a whole.
- S. One task force member indicated that they wanted more protection for the systems directly downstream of a redevelopment project.
- T. Mr. Rozzelle asked members how they would spend the money tabbed for stormwater treatment (on-site all the time or sometimes regionally)?
- One task force member indicated that the fee should be set to balance this decision.
- U. One task force member pointed out that State requirements do not apply to redevelopment sites and they are exempt from on-site controls.
- V. Several task force members agreed that regional controls can be great but the upstream system needs to be taken care of as well. In their opinion this should be accomplished by placing as much control on-site as possible.

- W. One task force member indicated that, in their opinion, if all redevelopment sites control fully on-site then the provision in the ordinance (18-161(c)) is useless.
- X. One task force member expressed that water quality controls on-site can be difficult for smaller sites (less than 10 acres).

III. Middle Ground Proposal – Rusty Rozzelle

Mr. Rozzelle explained the middle ground proposal shown in the handout and received the following questions and comments:

- A. Does the current ordinance allow for a reduction in fee if controls are provided?
 - The current ordinance does have a lower fee for sites that provide on-site controls (above one acre), but there is currently no reduction in fee for partial controls. The “maximum extent practicable” language is not in the current ordinance.
- B. As a point of clarification, the projects shown in the chart for fees that would be paid under different proposals uses total site area (or disturbed area if applicable) as the units for the maximum limit.
- C. How often would the fee be changed?
 - The current thought is that the fee would be evaluated annually based on a three year average of the City’s cost for regional devices.
- D. How is evaluation of BMPs analyzed? Is this based on the round numbers we use in the meetings?
 - BMPs can be sized appropriately for any size drainage area based on the design calculations in the BMP design manual.
- E. One task force member expressed that they would like to see more information on the 10% rule and how it is applied locally.
 - Staff will provide examples at the next meeting.

Mr. Rozzelle then explained the comparative ratio in the chart. Mr. Hammock then explained that by reducing the revenue generated from this provision, the rate of recovery of the overall watershed slows down. This is especially the case since the City can treat, on average, twice the impervious area than what would have been treated with on-site controls. One task force member expressed that that does not help the stream directly downstream of a redevelopment project. Mr. Hammock then expressed that on-site controls will not restore an eroded stream and that onsite controls have limited benefit in headwater systems dominated by pipes and man-made conveyances. One task force member indicated that they believe this to be an economic question as there is no guarantee that the fee will still be used if it is increased.

IV. Closing and Adjournment – Rusty Rozzelle

Mr. Rozzelle asked that all members fill out the questions provided to them about the current middle ground proposal prior to the next meeting so they can discuss their views with the group. Staff will provide the following items at the next meeting:

- More information on the application of the 10% rule within the City of Charlotte
- If a site is not required to install detention but does so anyway, what is the result?

There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, October 8, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

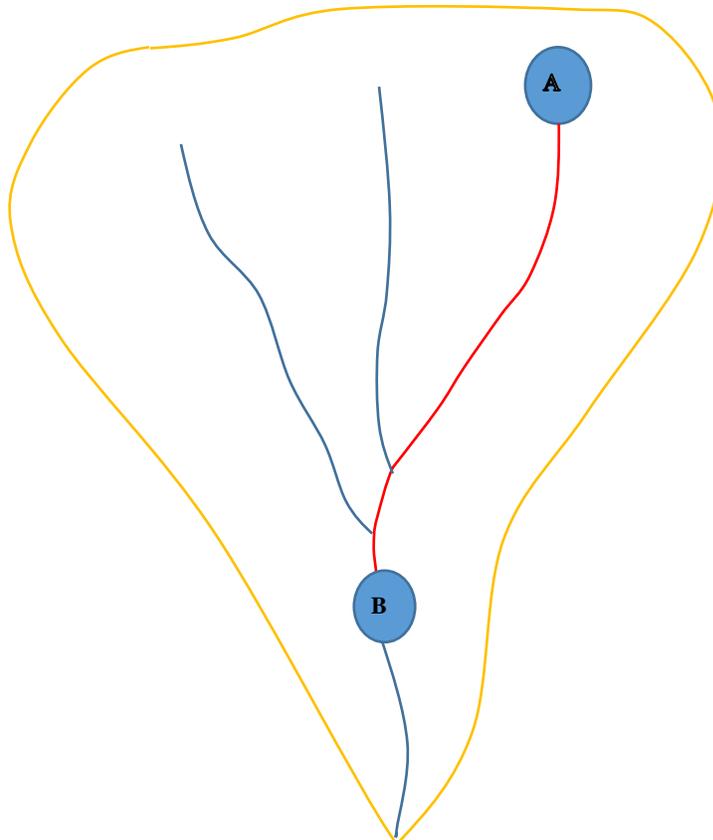
**Stormwater Mitigation Fee Task Force
Consensus Document
September 24, 2015**

Framework for Consensus:

During the May 28, 2015 meeting of the Stormwater Mitigation Fee Task Force, consensus was reached on the following. The figure below is meant to help clarify these statements.

1. The installation of a regional BMP at B using a mitigation fee collected from a redevelopment site at A is effective at compensating on a watershed scale (outlined in orange) for the impacts associated with non-compliance with ordinance requirements on-site at A.
2. However, the regional BMP at B does not effectively limit or reverse the downstream impacts (red line) from the existing development and/or the redevelopment at A and upstream of the regional BMP at B.

Can you live with concluding our deliberations in support of Paragraph 18-161(c) of Charlotte's Post-Construction Ordinance when consensus is reached regarding specific alternatives to be included to address the immediate downstream impacts (red line) described in #2 above to the extent practicable?





Process Forward:

The following alternatives are proposed by staff for deliberation by the Task Force for the purpose of addressing downstream impacts to the extent practicable:

1. Onsite Water Quality Control Measures
2. Quality Stream Review
3. Approval Process
4. Mitigation Fee

Alternatives will be deliberated individually in the order presented above. Deliberations will focus on specific wording describing the alternatives that will be added to Paragraph 18-161(c) of the Ordinance and/or to the supporting Administrative Manual once consensus is reached. It is recognized that several of these alternatives are linked. In these cases, a Task Force member can “Conditionally Consent” to an alternative if the consent is based on something occurring later in the deliberation process. The Task Force member must clearly specify the conditions upon which consensus is offered. These conditions will be entered into the minutes. If future deliberations do not support these conditions, the consensus will be considered invalid.

Alternatives may be added at any time in the process by either staff or Task Force members. For a Task Force member to add an alternative, an email should be sent to Daryl Hammock and Rusty Rozzelle briefly describing the alternative. If City staff determines they can support the alternative, it will be added to the list above and the details will be worked out in coordinated with the originator of the alternative for presentation to the Task Force for deliberation. If staff cannot support the alternative, it will be tabled and if so desired the originator of the alternative can propose it for deliberation after deliberations have concluded for the staff approved alternatives. If deliberations are to be held toward achieving consensus on a particular alternative at an upcoming meeting, staff will make every attempt to provide applicable information as far in advance of the meeting as possible. The deliberation process will conclude when deliberations have been completed for all identified alternatives.



Alternative #1: Onsite Water Quality Control Measures

Ordinance Language (shown below in Italics)

During the Task Force meeting held on June 25, 2015, consensus was reached on the ordinance language changes shown in “red” below. Strikethroughs indicate that text will be considered for deletion during the September 24, 2015 meeting. Text shown in “blue” will be considered for addition during this meeting.

*(c) Redevelopment not within transit station areas or distressed business districts. Projects involving redevelopment of existing built-upon-area, the cumulative addition of less than 20,000 square feet of new built-upon-area, **and total built-upon area less than or equal to 5 acres**, are allowed by right to forego meeting the requirements of this article, except for required stream buffers and phosphorous requirements, provided ~~one of the following measures is implemented on the site:~~ **the city is paid a mitigation fee according to rates set forth in the administrative manual for the pre-project built upon area and any additional impervious area and provided measures are installed onsite for water quality, volume, and peak control as well as for the protection of quality streams to the maximum extent practicable as determined by the Stormwater Administrator.***

*(1) ~~If an analysis of the downstream storm water conveyance system confirms that volume and peak control facilities may be waived by the Storm Water Administrator, provide 85 percent TSS removal from the first inch of rainfall for the entire project and pay the city a mitigation fee according to rates set forth in the administrative manual~~ **for the pre-project built-upon-area and any additional impervious area.***

or

*(2) ~~If an analysis of the downstream storm water conveyance system confirms that volume and peak control facilities may be waived by the Storm Water Administrator, pay the city a mitigation fee according to rates set forth in the administrative manual for the pre-project built upon area and any additional impervious area,~~ **and provide limited onsite control of secondary pollutants as identified in the administrative manual.***

or

*(3) ~~Provide one year, 24-hour volume control and ten-year, six-hour peak control for entire project and pay the city a mitigation fee according to rates set forth in the administrative manual for the pre-project built-upon-area and any additional impervious area.~~ **Provide limited onsite control of secondary pollutants as identified in the administrative manual.***

Additions to Administrative Manual (shown below in Italics)

During the Task Force meeting held on June 25, 2015, consensus was reached on the text shown in “black” below for addition to the Administrative Manual. Consensus was not reached on the text shown in “red” below. Strikethroughs indicate that text will be considered for deletion during the September 24, 2015 meeting. Text shown in “blue” will be considered for addition during this meeting.

Projects complying with this section must provide supplemental onsite control of secondary pollutants when the project is determined to contain areas that have the potential for high



~~pollutant discharges, or “hot spots.” Stormwater pollution hot spots are characterized as having a higher probability than the rest of the site to release pollutants and include:~~

- ~~1. Vehicle maintenance and repair facilities~~
- ~~2. Fueling areas~~
- ~~3. Areas of restaurant sites associated with waste and grease storage and handling~~
- ~~4. Vehicular areas associated with drive thrus, including restaurants and businesses with multiple drive thrus~~
- ~~5. Salvage yards and recycling facilities~~
- ~~6. Fleet storage yards and vehicle cleaning facilities~~
- ~~7. Vehicular areas on sites where the portion of BUA associated with automobiles (parking area, drive thrus, drive aisles, other vehicular related) is greater than 6050% of the total built upon site area, excluding parking decks, or exceeds one (1) acre~~
- ~~8. Commercial and retail nursery operations~~
- ~~9. Other uses designated by the Stormwater Ordinance Administrator~~

~~All controls must be designed, constructed and maintained in accordance with the Charlotte-Mecklenburg BMP Design Manual and the provisions contained in this Manual. Only the portion of the site that exhibits the characteristics of a hot spot must provide supplemental onsite control of secondary pollutants. The following controls are allowed for uses #1 through #7 above:~~

- ~~1. Catch Basin Inserts or Sumps~~
- ~~2. Vegetated Swales/Filter Strips~~
- ~~3. Stormwater Filters~~
- ~~4. Trash/Debris Collectors in Catch Basins~~

~~The following controls are allowed for use #8 above:~~

- ~~1. Vegetated Swales/Filter Strips~~
- ~~2. Constructed Wetlands~~
- ~~3. Stormwater Collection and Reuse~~

~~Other controls may be approved by Stormwater Ordinance Administrator.~~

Water quality, stream quality, volume, and peak will be controlled onsite to the maximum extent practicable as determined by the Stormwater Administrator. The following conditions will be considered by the Stormwater Administrator in making this determination:

- 1. For all control measures, onsite compliance with ordinance requirements will be maximized based on the physical conditions of the site.**
- 2. Compliance may include on site control requirements that will be determined through a downstream analysis to evaluate potential quality stream segments and evaluate the need for peak and volume control.**



Alternative #2: Quality Stream Review

During the Task Force meeting held on June 25, 2015, consensus was reached on the ordinance language changes shown in “red” below. During the September 24, 2015 meeting, this text will be considered for deletion because it is being addressed in the ordinance text for Alternative #1.

Ordinance Language (shown below in Italics)

*(c) Redevelopment not within transit station areas or distressed business districts. Projects involving redevelopment of existing built-upon area and the cumulative addition of less than 20,000 square feet of new built-upon area, are allowed by right to forego meeting the requirements of this article, except for required stream buffers and phosphorous requirements, provided **stream quality is protected as described in the administrative manual and** one of the following measures is implemented on the site:*

Additions to Administrative Manual (shown below in Italics)

During the Task Force meeting held on June 25, 2015, consensus was reached on the text shown below for addition to the Administrative Manual. During the September 24, 2015 meeting, no changes are being proposed to this language.

The following procedures are for the determination of stream quality for the provisions within the City of Charlotte Post Construction Stormwater Ordinance (PCSO) Section 18-161(c).

Desktop Assessment

To determine whether a field stream assessment is required:

1. *Delineate the “zone of influence” for the site, which is the downstream point where the drainage area controlled onsite comprises 10% or less of the total drainage area.*
2. *Go to Virtual Charlotte (<http://vc.charmeck.org>) and turn on the layers within the Stormwater Group as well as the most recent aerial photograph.*
3. *Locate on the aerial where stormwater from the proposed redevelopment enters the first open channel. If this location is downstream of the zone of influence defined in #1, then a quality stream does not exist and the assessment is concluded. The aerial must be submitted to the PCSO Administrator for verification.*
4. *If stormwater from the proposed redevelopment enters the first open channel upstream of the zone of influence, measure 500 feet down from this point to identify the terminus point of the evaluation.*
5. *Measure a twenty (20) foot buffer on either side of the estimated centerline of the channel. The total buffer width (both sides of the channel combined) should average forty (40) feet. (note: the average is taken to account for small segments that don’t have a wooded buffer).*
6. *Answer the following questions:*
 1. *Is there a continuous stretch of open channel for 500 feet?*
 - Yes = Move to question 2*
 - No = No field stream assessment required*



2. *Along this 500 foot open channel is there on average a 40 -foot **wooded** buffer?*
 Yes = Field stream assessment required
 No = No field stream assessment required

If you answered “No” to either of these questions, then a quality stream does not exist and the assessment is concluded. A copy of the aerial with site assessment area and determination of questions 1 and 2 indicated must be submitted to the PCSO Administrator for verification. If you answered “Yes” to both of these questions, a field visit is required.

Field Stream Assessment

If a field visit is required, the applicant can provide either of the following to the PCSO Administrator to demonstrate the project does not empty into a quality stream:

1. *Provide photo documentation of the existing degraded channel conditions or proof that the open channel is not a jurisdictional stream. Photos should be clear and provide evidence that the channel would not be classified as a stream or would be ranked as a low quality stream according to the North Carolina Stream Assessment Methodology (NCSAM). A map locating where the photos were taken must accompany the submittal. CMSWS will review the photos and reserves the right to request a NCSAM evaluation be performed before confirming the stream is not a quality stream segment.*
2. *Complete a NCSAM evaluation to document the quality of the open channel receiving stormwater from the proposed redevelopment. This form must be completed by an individual trained and certified to complete the NCSAM evaluations. If the NCSAM rating is medium or high, then the stream is consider a quality stream for the purposes of this ordinance.*

The PCSO Administrator may field verify the submittals. If a field stream assessment is required, a copy of the aerial with site assessment area and determination of questions 1 and 2 indicated along with photos or NCSAM evaluation must be submitted to the PCSO Administrator for verification that the stream is not a quality stream for purposes of the PCSO. Unless verified by the PSCO Quality Stream Assessment, all streams are considered quality streams and must comply with the quality stream requirements specified below.

Quality Stream Requirements

If a quality stream exists based on the above assessment, provide one-year, 24-hour volume control and ten-year, six-hour peak control for entire project with pretreatment. Following approval from the Stormwater Ordinance Administrator, the following onsite controls may be used when peak/volume control is not achievable due to conditions specific to the site:

1. *Catch Basin Inserts or Sumps*
2. *Vegetated Swales/Filter Strips*
3. *Stormwater Filters*
4. *Trash/Debris Collectors in Catch Basins*
5. *Vegetated Swales/Filter Strips*
6. *Constructed Wetlands*
7. *Stormwater Collection and Reuse*
8. *Other controls approved by Stormwater Ordinance Administrator*



Alternative #3: Approval Process

During the September 24, 2015 meeting, no text will be considered for addition to the ordinance or Administrative Manual regarding Alternative #3.



Alternative #4: Mitigation Fee

Changes to Administrative Manual (shown below in Italics)

During the September 24, 2015 meeting, the text below will be considered for addition to the Administrative Manual regarding the fee. No text is proposed for the ordinance other than what is indicated under Alternative #1.

The base fee will be set at the City’s cost to provide offsite mitigation as established by the City Engineer and may be changed as necessary as the City’s costs change. Multipliers or mitigation ratios of this base fee will be used to set the mitigation fee based on total built-upon area as established in the table below.

<i>Built-Upon Area</i>	<i>Base Fee</i>	<i>Mitigation Ratio</i>	<i>Mitigation Fee</i>
<i>1st acre</i>	<i>\$30,000</i>	<i>2.5:1</i>	<i>\$75,000</i>
<i>>1 acre and ≤2 acres</i>	<i>\$30,000</i>	<i>3.0:1</i>	<i>\$90,000</i>
<i>>2 acre and ≤3 acres</i>	<i>\$30,000</i>	<i>3.5:1</i>	<i>\$105,000</i>
<i>>3 acres and ≤4 acres</i>	<i>\$30,000</i>	<i>4.0:1</i>	<i>\$120,000</i>
<i>>4 acres and ≤5 acres</i>	<i>\$30,000</i>	<i>4.5:1</i>	<i>\$135,000</i>

The following conditions apply to the use of mitigation fee.

- 1. The mitigation fee applies to built-upon area.*
- 2. Only projects with ≤5 acres of total built-upon area, including pre and post-project, are eligible to use the fee.*
- 3. Fees will be reduced for sites with stormwater treatment based on the percentage of compliance with water quality (pollutant removal), and volume and peak (detention) requirements. Half of the fee may be reduced through full compliance with the volume and peak requirements. The other half of the fee may be reduced through full compliance with the water quality requirements. In other words, if full compliance with either the volume and peak or water quality requirements is provided on site, then the fee will be reduced by 50%. If partial compliance with volume and peak and/or water quality is provided on site, then the percentage of compliance dictates the percentage of the fee reduction. For example, if a 1.5 acre site satisfies 20% of the water quality and 30% of the peak and volume requirements, then half of the fee would be reduced by 20% for a water quality credit, and half of the fee would be reduced by 30% for a peak and volume credit. The fee for this scenario would be calculated as follows:*
 - The mitigation fee for the 1.5 acre site without controls is \$75,000 for the first acre, and 45,000 for the additional half acre (half of \$90,000), or \$120,000.*
 - Since half of the fee may be reduced for water quality, and 20% of the water quality requirement is being met onsite, then ½ x 20% results in a fee reduction of 10%, or \$12,000.*
 - Since half of the fee may be reduced for volume and peak, and 30% of the volume and peak requirement is being met onsite, then ½ x 30% results in a fee reduction of 15%, or \$18,000.*
 - Total fee reduction is therefore \$30,000 and the fee to be paid becomes \$90,000 instead of \$120,000.*



4. *Compliance with ordinance requirements, including all mitigation fee reductions, is achieved through the designed, constructed and maintenance of structural stormwater controls in accordance with the Charlotte-Mecklenburg BMP Design Manual and Charlotte's Administrative Manual. To ensure long-term maintenance of BMPs designed according to this manual, maintenance agreements and plans are required to be prepared, approved by each jurisdiction's staff, and recorded with the Register of Deeds for each BMP.*
5. *Partial compliance for mitigation fee reduction purposes is achieved by treating a portion of a site. If topographic conditions at the site do not allow afford opportunities for treating a portion of the site, then partial compliance can be achieved by splitting the flow at the structure.*
6. *Only sites where the Storm Water Administrator determines that physical and/or hydrologic conditions preclude the installation of onsite controls will be allowed to forego the installation of these controls and will be required to pay the full mitigation fee as indicated in the above table.*

Stormwater Mitigation Fee Task Force Meeting Minutes
Thursday, September 10, 2015 - DRAFT
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Roger Coates
Paisley Gordon, Jr.
Marc Houle
Sam Perkins
Rick Roti
Eric Spengler
Ken Szymanski
Steve Wilson

ABSENCE: Voting Member

Dr. Craig Allan
Nancy Carter
Nate Doolittle
David Robinson
Dr. Jy Wu

ATTENDANCE: Alternate

Steve Copulsky
Joe Padilla

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock
Tom Ferguson
Mike MacIntyre
Jordan Miller
Marc Recktenwald
Tim Richards
Karen Weatherly
Hyong Yi

HANDOUTS:

Stormwater Mitigation Fee Task Force Consensus Proposals
ETJ Parcel Data Slides

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting. Meeting minutes from August 27th were discussed. These minutes were approved without comments.

II. Consensus Proposals – Rusty Rozzelle, Eric Spengler, Marc Houle

Mr. Rozzelle introduced the two proposals from two groups of members of the task force for the group to consider. These proposals can be seen on the attached document. Mr. Spengler and Mr. Houle further explained the proposals and received the following questions and comments:

A. Why should sites adjacent to the floodway be exempt from providing detention?

- Members of the task force and staff both provided reasoning for this that relates to timing of the runoff from upstream properties and the release of runoff from the subject site and how detention could effectively increase peak flows to a large (>640 acres drainage area) stream. This exemption is similar in principle to the Ten Percent Rule. Several members of the task force requested further explanation from staff or the academia members of the task force. Section 4.6 of the [Georgia Stormwater Management Manual](#) (beginning on page 4.20) is duplicated in many manuals in the US and provides information on why drainage area is considered in a downstream analysis.

B. What water quality benefits are accomplished with the eight items provided earlier in the hot spot discussion?

- Staff explained that many of these measures do not currently have a pollutant removal efficiency assigned to them and others would likely not be installed per the requirements in the BMP Manual and would therefore not receive the full pollutant removal assigned to them. Staff will research and provide estimated pollutant removal rates for measures to be provided by sites where detention is not provided. The subject measures are shown below:

1. Catch Basin Inserts or Sumps
2. Oil/water separators/hydrodynamic devices
3. Stormwater Filters
4. Trash/Debris Collectors in Catch Basins
5. Vegetated Swales/Filter Strips
6. Constructed Wetlands
7. Stormwater Collection and Reuse
8. Other controls approved by Stormwater Ordinance Administrator

- C. One task force member expressed concern with using only TSS as a pollutant removal target and suggested staff look for measures that will remove other pollutants.
- Staff explained that the surface water quality industry is driven by TSS removal. TSS is a nationally accepted surrogate for a wide range of pollutants. Stormwater control measures that remove TSS also remove a range of pollutants. TSS and the pollutants closely associated with TSS are the pollutants that are affecting surface waters in Charlotte. The local design manual is based on TSS and total phosphorous removal efficiencies for these reasons.

After deliberations on the fee amount and on site controls, consensus was reached that sites greater than five (5) acres would not be eligible for this mitigation. Several members preferred to not discuss the fee amounts for sites without controls until the fees can also be discussed for sites with controls. Further information about partial onsite treatment will be provided by staff. Mr. Rozzelle then asked if the members of the task force could agree that the reduction in fee be based on removal of pollutants (target pollutants to be determined). This was agreed upon by all members. There was further discussion about the use of disturbed area in lieu of parcel size on projects that are only redeveloping a portion of the property. This discussion was shelved for the next meeting to allow task force members more time to weigh the consensus proposals.

III. Closing and Adjournment – Rusty Rozzelle

There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, September 24, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

**Stormwater Mitigation Fee Task Force
Middle Ground Proposal
9/10/15**

**Alternative #1: Onsite Water Quality Control Measures &
Alternative #2: Quality Stream Review**

Marc's Proposal	Eric's Proposal	Compromise Proposal
1.All sites will be evaluated by the Storm Water Administrator to determine if 1-year, 24-hour volume control and 10-year, 6-hour peak control with pretreatment to achieve the water quality goals described below ⁽¹⁾ will be required based upon a downstream analysis including current parameters and the addition of the quality stream assessment.	1.All sites will provide 1-year, 24-hour volume control and 10-year, 6-hour peak control with pretreatment to achieve the water quality goals of 30% Total Suspended Solids (TSS) and 30% Total Phosphorus (TP) removal efficiencies.	1.
(Exception to #1) a.Storm Water Administrator determines that physical conditions at the site preclude compliance with this requirement. Examples include brownfield sites, sites with major utility conflicts, inadequate or shallow adjacent storm water infrastructure, and etc. b.Project discharges directly to a FEMA stream (draining ≥640 acres).	(Exception to #1) a.Storm Water Administrator determines that physical conditions at the site preclude compliance with this requirement. (<u>Note</u> : Examples include brownfield sites, sites with major utility conflicts, inadequate or shallow adjacent stormwater infrastructure, etc.) b.This means that the 10% rule is inapplicable and all sites comply.	(Exception to #1) a.
2.Sites greater than five (5) acres will not be eligible for this mitigation.	2.Sites greater than three (3) acres will not be eligible for this mitigation fee option and otherwise must comply fully with on-site volume and water quality controls.	2.

(1) Water Quality Goals: Temporarily store incoming storm water, trapping suspended pollutants, reducing the peak discharge, and achieving a 30% Total Suspended Solids and 30% Total Phosphorus removal efficiency.

Alternative #3: Fee

The table below describes the current fee structure and the proposals offered by the City as well as Eric Spengler's and Marc Houle's counter proposals.

Site Description(1)	Current Fees	Marc's Proposal	Eric's Proposal	Compromise Proposal
With Controls				
1 st acre	\$60,000(2)	\$35,000(3)	\$54,000(3)	
>1 acre and <3 acres	\$60,000(2)	\$35,000(3)	\$54,000(3)	
≥3 acres and ≤5 acres	\$60,000(2)	\$35,000(3)	Full Compliance or \$120,000(3)	
Without Controls				
1 st acre	\$60,000	\$75,000	\$80,000	
>1 acre and ≤3 acres	\$90,000	\$100,000	\$120,000	
>3 acres and ≤5 acres	\$90,000	\$100,000	\$160,000	

Notes:

- (1) Applies to site area and not built-upon area. If the redevelopment site area is on a larger existing development site, then the area disturbed for the redevelopment will be considered as the site area and not the total area of the existing development.
- (2) Install onsite controls to achieve 1-year, 24-hour volume control and 10-year, 6-hour peak control.
- (3) Install onsite controls to achieve 1-year, 24-hour volume control and 10-year, 6-hour peak control in accordance with the Extended Dry Detention design criteria contained in Chapter 4.9 of the Charlotte-Mecklenburg BMP Design Manual, which includes 30% Total Suspended Solids (TSS) and 30% Total Phosphorus (TP) pollutant removal efficiencies.
- (4) Only sites where the Storm Water Administrator determines that physical and/or hydrologic conditions preclude the installation of onsite controls will be allowed to forego the installation of these controls and will be required to pay the increased fees as indicated in the above table.

**Stormwater Mitigation Fee Task Force
Middle Ground Proposal
9/17/15**

**Alternative #1: Onsite Water Quality Control Measures &
Alternative #2: Quality Stream Review**

Marc's Proposal	Eric's Proposal	Middle Ground Proposal
<p>1.All sites will be evaluated by the Storm Water Administrator to determine if 1-year, 24-hour volume control and 10-year, 6-hour peak control with pretreatment to achieve the water quality goals will be required based upon a downstream analysis including current parameters and the addition of the quality stream assessment.</p>	<p>1.All sites will provide 1-year, 24-hour volume control and 10-year, 6-hour peak control with pretreatment to achieve the water quality goals.</p>	<p>1. Onsite water quality, volume and peak controls are required to the maximum extent practicable using onsite structural stormwater treatment systems as determined by the Stormwater Administrator based on physical site conditions, a downstream analysis including current parameters, and the addition of the quality stream assessment. A reduction in the per acre mitigation fee will be provided based on the amount of onsite treatment provided as described in the table below.</p>
<p>(Exception to #1) a.Storm Water Administrator determines that physical conditions at the site preclude compliance with this requirement. Examples include brownfield sites, sites with major utility conflicts, inadequate or shallow adjacent storm water infrastructure, and etc. b.Project discharges directly to a FEMA stream (draining ≥640 acres).</p>	<p>(Exception to #1) a.Storm Water Administrator determines that physical conditions at the site preclude compliance with this requirement. (Note: Examples include brownfield sites, sites with major utility conflicts, inadequate or shallow adjacent stormwater infrastructure, etc.) b.This means that the 10% rule is inapplicable and all sites comply.</p>	<p>(Exception to #1) a.Storm Water Administrator determines that physical conditions at the site preclude compliance with this requirement.</p>
<p>2.Sites greater than five (5) acres will not be eligible for this mitigation.</p>	<p>2.Sites greater than three (3) acres will not be eligible for this mitigation fee option</p>	<p>2.Only projects with less than or equal five (5) acres of total built-upon area,</p>

Marc's Proposal	Eric's Proposal	Middle Ground Proposal
	and otherwise must comply fully with on-site volume and water quality controls.	including pre and post-project, will be eligible for this mitigation.

Alternative #3: Fee

The table below describes the current fee structure and proposals offered Eric Spengler and Marc Houle as well as a middle ground proposal approved by City staff. All the fees are based on a cumulative per acre built-upon area rate as specified in the table. The City's compromise proposal includes multipliers or *mitigation ratios* that are multiplied by the City's most current 3-year average cost to provide offsite mitigation, currently \$30,000, to determine the mitigation fee. These mitigation ratios begin at 2.5 to 1 or \$75,000 for the 1st acre and increase by 0.5 for each area category up to 4.5 to 1 for 4 to 5 acres.

BUA Categories(1)	Current Fee	Marc's Proposal	Eric's Proposal	Middle Ground Proposal
With Stormwater Treatment				
1 st acre	\$60,000	\$35,000	\$54,000	(1)(2)(3)
>1 acre and <3 acres	\$60,000	\$35,000	\$54,000	(1)(2)(3)
≥3 acres and ≤5 acres	\$60,000	\$35,000	Full Compliance or \$120,000	(1)(2)(3)
Without Stormwater Treatment (2)				
1 st acre	\$60,000	\$75,000	\$80,000	\$75,000
>1 acre and ≤2 acres	\$90,000	\$100,000	\$120,000	\$90,000
>2 acre and ≤3 acres	\$90,000	\$100,000	\$120,000	\$105,000
>3 acres and ≤4 acres	\$90,000	\$100,000	\$160,000	\$120,000
>4 acres and ≤5 acres	\$90,000	\$100,000	\$160,000	\$135,000

Notes:

- (1) Fees will be reduced for sites with stormwater treatment based on the percentage of compliance with water quality (pollutant removal), and volume and peak (detention) requirements. Half of the fee may be reduced through full compliance with the volume and peak requirements. The other half of the fee may be reduced through full compliance with the water quality requirements. In other words, if full compliance with either the volume and peak or water quality requirements is provided on site, then the fee will be reduced by 50%. If partial compliance with volume and peak and/or water quality is provided on site, then the percentage of compliance dictates the percentage of the fee reduction. For example, if a 1.5 acre site satisfies 20% of the water quality and 30% of the peak and volume requirements, then half of the fee would be reduced by 20% for a water quality credit, and half of the fee would be reduced by 30% for a peak and volume credit. The fee for this scenario would be calculated as follows:

- The mitigation fee for the 1.5 acre site without controls is \$75,000 for the first acre, and 45,000 for the additional half acre (half of \$90,000), or \$120,000.
 - Since half of the fee may be reduced for water quality, and 20% of the water quality requirement is being met onsite, then $\frac{1}{2} \times 20\%$ results in a fee reduction of 10%, or \$12,000.
 - Since half of the fee may be reduced for volume and peak, and 30% of the volume and peak requirement is being met onsite, then $\frac{1}{2} \times 30\%$ results in a fee reduction of 15%, or \$18,000.
 - Total fee reduction is therefore \$30,000 and the fee to be paid becomes \$90,000 instead of \$120,000.
- (2) Compliance with ordinance requirements, including all mitigation fee reductions, is achieved through the designed, constructed and maintenance of structural stormwater controls in accordance with the Charlotte-Mecklenburg BMP Design Manual and Charlotte’s Administrative Manual. Nine (9) BMPs have been approved for use in the City of Charlotte, including Wet Ponds, Wetlands, Enhanced Grass Swales, Grassed Channels, Infiltration Trenches, Filter Strips/Wooded Buffers, Sand Filters, and Extended Dry Detention systems. Additional BMPs may be added in later versions of this Manual. Alternative BMPs that are not currently described in the Manual will be considered, reviewed, and approved on a case-by-case basis. The review and approval process will consider BMP documentation, pollutant removal efficiency, long-term maintenance ease, etc. To ensure long-term maintenance of BMPs designed according to this manual, maintenance agreements and plans are required to be prepared, approved by City staff, and recorded with the Register of Deeds for each BMP.
- (3) Partial compliance for mitigation fee reduction purposes is achieved by treating a portion of a site. If topographic conditions at the site do not afford opportunities for treating a portion of the site, then partial compliance can be achieved by splitting the flow at the structure.
- (4) Only sites where the Storm Water Administrator determines that physical and/or hydrologic conditions preclude the installation of onsite controls will be allowed to forego the installation of these controls and will be required to pay 100% of the fee indicated in the above table.

The table below provides a comparison between the actual fees paid by 16 projects approved for use of the mitigation option and the fees calculated for the three (3) proposals currently under consideration.

Proposal Comparison Table

September 17, 2015

Project name	Project Acres	Mitigated BUA	Disturbed Acres	Current Fee	Marc's Proposal	Eric's Proposal	Middle Ground Proposal	Comp. Ratio(1)	Onsite Controls
Circle University City Apts.	4.93	2.11	4.93	\$159,900	\$73,850	\$113,940	\$88,275	94.01%	Underground Detention
7-Eleven N Wendover	1.07	0.76	1.27	\$45,600	\$26,758	\$41,283	\$28,669	84.27%	Underground Detention
Drexel Place Apts.	1.13	0.89	1.11	\$53,400	\$31,150	\$48,060	\$33,375	84.27%	Underground Detention
Duke Endowment	1.77	1.26	1.99	\$75,600	\$44,100	\$68,040	\$49,200	87.75%	Detention
Hendrick Luxury Collision Center	6.98	0.8	0.76	\$47,800	\$27,860	\$42,984	\$29,850	84.27%	Underground Detention
Hendrick Motors of Charlotte Autohaus Final Engineering Plans	5.37	4.67	5.6	\$280,000	\$0	\$0	\$0	N/A	Underground Detention
McDonald's - Wendover	1.68	1.1	1.36	\$65,960	\$38,465	\$59,346	\$42,000	85.88%	Underground Detention
South Kings Midtown	2.53	1.88	2.91	\$112,800	\$65,800	\$101,520	\$77,100	92.16%	Underground Detention

Project name	Project Acres	Mitigated BUA	Disturbed Acres	Current Fee	Marc's Proposal	Eric's Proposal	Middle Ground Proposal	Comp. Ratio(1)	Onsite Controls
Southpark Autobell	1.8	0.9	1.64	\$54,000	\$31,472	\$48,557	\$33,720	84.27%	Underground Detention
Kenwood Myers Park	1.03	0.65	0.99	\$30,600	\$22,750	\$35,100	\$24,375	84.27%	Permeable Pavement
7 Eleven #35580 Pineville Matthews Rd	1.19	0.59	0.76	\$33,200	\$44,243	\$47,200	\$44,243	96.77%	N/A
Bank of the Ozarks	1.03	0.79	0.89	\$47,400	\$59,250	\$63,200	\$59,250	96.77%	N/A
Charlotte Catholic High School Deck and Stadium Expansion	4	2.85	4	\$226,410	\$259,900	\$0	\$254,250	N/A	N/A
Crescent Dilworth	2.48	1.88	2.48	\$138,750	\$162,500	\$185,600	\$154,200	88.60%	N/A
Harris Teeter - Ballantyne	15.84	1	1.5	\$60,000	\$75,000	\$80,000	\$75,000	96.77%	N/A
Stratford Apartments Revision	6.75	3.26	5.6	\$265,200	\$0	\$0	\$0	N/A	N/A
TOTALS	59.58	25.39	37.79	\$1,696,620	\$963,098	\$934,830	\$993,507	90.26%(2)	N/A

NOTES:

- (1) The Comp. Ratio is the percentage of compromise represented by the Middle Ground Proposal. A Comp. Ratio of 100% indicates that the value represented by the Middle Ground Proposal fails directly in the middle between the values represented by Marc's and Eric's Proposals.
- (2) This is an adjusted Comp. Ratio calculated by subtracting Charlotte Catholic from the Middle Ground Proposal and Marc's Proposal since no value is represented for Eric's Proposal.

Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, October 8, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
4:30 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Dr. Craig Allan
Nancy Carter
Roger Coates
Nate Doolittle
Marc Houle
Sam Perkins
Rick Roti
Eric Spengler
Ken Szymanski
Steve Wilson
Dr. Jy Wu

ABSENCE: Voting Member

Paisley Gordon, Jr.
David Robinson

ATTENDANCE: Alternate

Steve Copulsky
Rob Nanfelt
Joe Padilla

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Mike MacIntyre - Speaker
Jordan Miller - Speaker
Daryl Hammock
Tom Ferguson
Marc Recktenwald
Tim Richards
Hyong Yi

HANDOUTS:

Agenda
Stormwater Mitigation Fee Task Force Consensus Documents
Stormwater Mitigation Fee Task Force Middle Ground Proposal 4.4

Consensus Building Table

I. Welcome, Review of Minutes – Rusty Rozzelle

Mr. Rozzelle opened the meeting by asking for any comments on the meeting minutes from meetings on September 10th and September 24th. No comments were received and the minutes for both meetings were approved. The approved minutes will be posted on the website.

II. Further Explanation of the 10% Rule – Mike MacIntyre

Mr. MacIntyre presented on the process that city staff uses to determine if detention controls are required based on the principles of the 10% rule. This explanation included a drawing of a watershed with multiple theoretical redevelopment projects within it. The following questions and comments were received:

- A. Do you look at the cumulative runoff to the 10% point?
 - Yes, the analysis is based on current conditions. So, as conditions change, each analysis throughout time could be different.
- B. Can problems be identified anywhere along the drainage path to the 10% point?
 - Yes, the 10% point is the ending point in the analysis and anything between the redevelopment site and the 10% point is analyzed for problems.
- C. There was a mention of impervious area within the watershed. Flow is a function of both pervious and impervious cover, correct?
 - Yes, the drainage area can be modeled using hydrologic modeling software and this would take into account the impervious and pervious areas within the drainage area.
- D. Do you use gauges in the streams?
 - No, the analysis is based on modeling.
- E. Is the stream at the 10% point a FEMA stream?
 - That is possible and if so, the analysis would stop there.
- F. Does site size determine the 10% point?
 - Yes, the 10% point is based on the point in the watershed where the drainage area of the site is 10% or less than the overall drainage area to that point. For example, if the site drains 10 acres to a stream then the 10% point for the analysis would be where the stream collectively carries runoff from 100 acres.
- G. What if more sites within the 10% analysis area redevelop?

- An analysis would be performed for each site as the watershed characteristics could change. Other sites would therefore have their own 10% watershed basin areas, which would then be analyzed.
 - Is it sufficient to just “stop the bleeding” and only provide detention for sites that make things worse?
 - Redevelopment sites that do not cause additional strain on the drainage system can provide funding for restoration within the same watershed. If the sites that do not make things worse pay a fee, then the fee can be used to provide detention elsewhere in the watershed.
- H. One task force member expressed that the benefit to the watershed is the collection of a fee to be used within that watershed for stormwater control measure(s). This member also expressed that detention can actually cause increased time of bank full flows, possibly creating more erosion. They also expressed that in some cases detention could allow for the flows from the upper reaches of the watershed to reach the point at the same time as the detention peak flow; causing higher peak flows than what was previously experienced at the analysis point.
- I. One task force member expressed that they believed volume control on all sites seems like it would help the watershed.
- J. One task force member asked if the 10% analysis is similar to global warming in that it is accepted by the vast majority of experts.
- The 10% analysis methodology is widely accepted across the country.
- K. What happens with cumulative development throughout a watershed? How does 10% analysis change as the watershed develops?
- One task force member expressed that as the watershed develops many projects would provide controls as 90% of projects approved through PCSO are considered development (not eligible for the redevelopment mitigation option).
 - The analysis would change over time as the watershed develops and the hydrologic characteristics change.
- L. Do you assume any future development?
- One task force member answered by saying that many new design standards require the assumption of “full build out”, meaning that the design must assume the watershed will be developed to the maximum extent allowable under the current zoning of the watershed.
- M. One task force member offered an option to only allow the mitigation fee option in lieu of on-site controls when the watershed is comprised of at least 10% single-family residential and regional controls appear to be possible within it. This was further clarified to mean lower density residential.
- N. One task force member asked what the goal of the above proposal would be.
- To keep regional controls within the sub-basin where the fee was collected.

- O. Is detention always good?
- No, based on the hydrograph, it could make things worse.
- P. One task force member expressed that they understand hydrographs but that they disagree that peak and volume detention can be bad.
- Q. One task force member indicated that part of the frustration with the redevelopment fee option is that it was originally agreed upon to be temporary and if it is going to be permanent then they want to make sure that it is well thought out.
- R. Mr. Rozzelle asked members how they would spend the money tabbed for stormwater controls (on-site all the time or sometimes regionally)?
- One task force member indicated that they would like assurances that the money would be spent within the sub-basin in which it was collected.
- S. One task force member pointed out that they have probably worked on 10 projects that could have used the redevelopment fee option but elected to provide full stormwater controls on-site and that redevelopment should be further incentivized.
- T. Most streams in the City are listed for 303d impairment, so would we not want detention controls on-site to help this?
- These impairments can be for many pollutants and not necessarily corrected by detention.
- U. Do citizens actually call 311 to report slowly eroding channels?
- Storm Water Services has received over 10,000 requests for service based on erosion. Also, the Quality Stream Analysis that was previously discussed in the task force meetings would help to identify channels that may be helped by on-site controls.
- V. One task force member expressed that in their experience most projects will require detention.
- W. Is the Quality Stream Analysis performed by city staff or the developer?
- The analysis would be performed by the developer (or hired professional) and submitted to city staff for review.

Mr. Rozzelle stopped the discussion to point out that only half of the time available for the meeting was remaining and called for a vote of consensus on continuing to utilize the 10% analysis to determine when on-site detention is required. No members expressed that they could NOT live with it but some agreed on conditional consensus pending the fee amount and if this is a practice common among other municipalities. Mr. Rozzelle asked Dr. Allan and Dr. Wu if this was common in other municipalities based on their research and experience. They both answered yes.

III. Underground Pre-Treatment, Sand Filters, and Street Sweeping – Jordan Miller

Mr. Miller provided information on the different types of pre-treatment that can be used with underground detention. He also provided information about underground sand filters and street sweeping. The following questions and comments were received during the presentation:

- A. How is an above ground sand filter different than an underground sand filter?
- Above ground sand filters look very much like dry detention ponds except that they have sand and an underdrain system in the lowest section of the pond to allow for pollutant removal through filtration.

IV. Middle Ground Proposal 4.4 – Rusty Rozzelle

Mr. Rozzelle explained the Middle Ground Proposal 4.4 document and the intent of the proposal. The following questions and comments were received:

- A. What is the connotation if no redevelopment takes place on dirtier sites?
- Without redevelopment on a dirtier site, the higher level of pollutants (relative to other land uses) will continue to be released into the stream network.
- B. One task force member expressed a desire to know what percentage of land within the city is considered to be a land use in the criteria in the proposal.
- This will be provided at or before the next meeting.
- C. One task force member explained that they understood the fee rate categories to be based on the site size and not built upon area.
- This is not the case and will be corrected to be clearer in the proposal documents. The fee rate categories are based on built upon area.
- D. Do the land uses in the proposal refer to the current land use or the proposed use of the redevelopment project?
- These would be based on the proposed land use of the redevelopment project.
- E. Is the 10% reduction in impervious based on the pre-developed condition vs. the post-developed condition?
- Yes. The same principle is used for parking/vehicular reduction as well.
- F. Are parking decks considered buildings or parking/vehicular areas?
- This will need to be determined by staff and an answer will be provided prior to the next meeting.
- G. One task force member expressed the helpfulness of the comparison table showing the amount of revenue collected in mitigation fees for each proposal.

H. One task force member explained that in their opinion the table did not help as it did not capture the additional cost for on-site controls that have been added throughout the task force process.

Mr. Rozzelle explained to the task force that there are only three meetings remaining to reach consensus (possibly four to five meetings if significant progress is made) and that this will be the final proposal considered for consensus. One task force member asked if this proposal could be tweaked and Mr. Rozzelle explained that it could be tweaked slightly but there is likely not enough time to make any major revisions. Mr. Rozzelle explained that if consensus is not reached by the final meeting, then the proposal will be voted on and the results of the vote will be presented as part of staff's presentation to City Council. He then explained that the errors in the proposal will be fixed and sent back to the task force prior to the next meeting. Mr. Rozzelle also informed the task force that he will be out of town the next week and that any questions should be directed to Daryl Hammock at 704-336-2167 or dhammock@charlottenv.gov. Mr. Rozzelle expressed that the task force members need to be willing to trust the experts in the room when discussing the engineering and scientific principles behind the ordinance proposal. The task force members were asked to complete the consensus building table based on the revised proposal. This will need to be completed next week and sent to staff to compile the responses.

Additional information requested from staff:

- What are staff's goals for the redevelopment mitigation option within the ordinance (18-161(c))?
- As a result of the revisions to this section, will the mitigation fee be used more or less?

There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, October 22, 2015 from 4:30 p.m. to 6:30 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

Stormwater Mitigation Fee Task Force

October 8, 2015
4:30 p.m. Room 266, CMGC

Meeting Agenda

5 minutes – Welcome, review of minutes
Rusty Rozzelle

20 minutes – Provide answers to 10% rule questions from last meeting as follows: 1) Is there any benefit to requiring detention on all sites even when the downstream analysis indicates it is not necessary? 2) Does the downstream analysis take into consideration increased impervious area as the watershed develops?
Mike MacIntyre

15 minutes – Detention devices, including pretreatment (the sump)
Jordan Miller

15 minutes – Sand filters & street sweeping
Jordan Miller

1 hour – Consensus building for Proposal 4.4
Rusty Rozzelle

5 minutes – Process forward/adjournment
Rusty Rozzelle

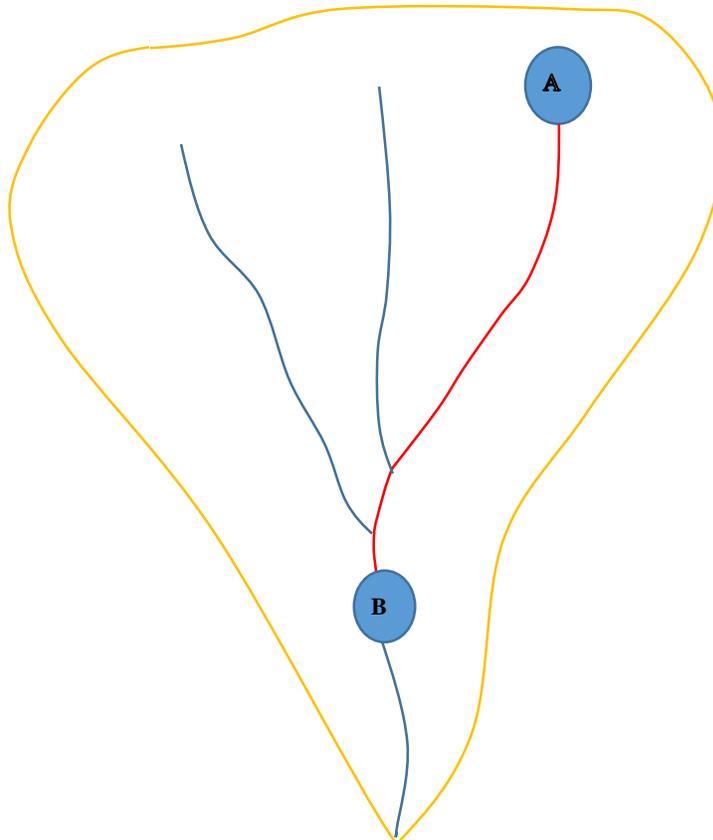
**Stormwater Mitigation Fee Task Force
Consensus Document
October 8, 2015**

Framework for Consensus:

During the May 28, 2015 meeting of the Stormwater Mitigation Fee Task Force, consensus was reached on the following. The figure below is meant to help clarify these statements.

1. The installation of a regional BMP at B using a mitigation fee collected from a redevelopment site at A is effective at compensating on a watershed scale (outlined in orange) for the impacts associated with non-compliance with ordinance requirements on-site at A.
2. However, the regional BMP at B does not effectively limit or reverse the downstream impacts (red line) from the existing development and/or the redevelopment at A and upstream of the regional BMP at B.

Can you live with concluding our deliberations in support of Paragraph 18-161(c) of Charlotte's Post-Construction Ordinance when consensus is reached regarding specific alternatives to be included to address the immediate downstream impacts (red line) described in #2 above to the extent practicable?





Process Forward:

The following alternatives are proposed by staff for deliberation by the Task Force for the purpose of addressing downstream impacts to the extent practicable:

1. Onsite Water Quality Control Measures
2. Quality Stream Review
3. Approval Process
4. Mitigation Fee

Alternatives will be deliberated individually in the order presented above. Deliberations will focus on specific wording describing the alternatives that will be added to Paragraph 18-161(c) of the Ordinance and/or to the supporting Administrative Manual once consensus is reached. It is recognized that several of these alternatives are linked. In these cases, a Task Force member can “Conditionally Consent” to an alternative if the consent is based on something occurring later in the deliberation process. The Task Force member must clearly specify the conditions upon which consensus is offered. These conditions will be entered into the minutes. If future deliberations do not support these conditions, the consensus will be considered invalid.

Alternatives may be added at any time in the process by either staff or Task Force members. For a Task Force member to add an alternative, an email should be sent to Daryl Hammock and Rusty Rozzelle briefly describing the alternative. If City staff determines they can support the alternative, it will be added to the list above and the details will be worked out in coordinated with the originator of the alternative for presentation to the Task Force for deliberation. If staff cannot support the alternative, it will be tabled and if so desired the originator of the alternative can propose it for deliberation after deliberations have concluded for the staff approved alternatives. If deliberations are to be held toward achieving consensus on a particular alternative at an upcoming meeting, staff will make every attempt to provide applicable information as far in advance of the meeting as possible. The deliberation process will conclude when deliberations have been completed for all identified alternatives.



Alternative #1: Onsite Water Quality Control Measures

Ordinance Language (shown below in Italics)

During the Task Force meeting held on June 25, 2015, consensus was reached on the ordinance language changes shown in “red” below. Strikethroughs indicate that text will be considered for deletion during the October 8, 2015 meeting. Text shown in “blue” will be considered for addition during this meeting.

(c) Redevelopment not within transit station areas or distressed business districts. Projects involving redevelopment of existing built-upon-area, the cumulative addition of less than 20,000 square feet of new built-upon-area, and site/development area less than or equal to 5 acres, are allowed by right to forego meeting the requirements of this article, except for required stream buffers and phosphorous requirements, provided ~~one of the following measures is implemented on the site:~~ the city is paid a mitigation fee according to rates set forth in the administrative manual for the pre-project built upon area and any additional impervious area and provided measures are installed onsite for water quality, volume, and peak control as well as for the protection of quality streams as determined by the Stormwater Administrator.

*(1) If an analysis of the downstream storm water conveyance system confirms that volume and peak control facilities may be waived by the Storm Water Administrator, provide 85 percent TSS removal from the first inch of rainfall for the entire project and pay the city a mitigation fee according to rates set forth in the administrative manual **for the pre-project built-upon-area and any additional impervious area.***

or

*(2) If an analysis of the downstream storm water conveyance system confirms that volume and peak control facilities may be waived by the Storm Water Administrator, pay the city a mitigation fee according to rates set forth in the administrative manual for the pre-project built upon area and any additional impervious area, **and provide limited onsite control of secondary pollutants as identified in the administrative manual.***

or

*(3) Provide one year, 24 hour volume control and ten year, six hour peak control for entire project and pay the city a mitigation fee according to rates set forth in the administrative manual for the pre-project built-upon-area and any additional impervious area. **Provide limited onsite control of secondary pollutants as identified in the administrative manual.***

Additions to Administrative Manual (shown below in Italics)

During the Task Force meeting held on June 25, 2015, consensus was reached on the text shown in “black” below for addition to the Administrative Manual. Consensus was not reached on the text shown in “red” below. Strikethroughs indicate that text will be considered for deletion during the October 8, 2015 meeting. Text shown in “blue” will be considered for addition during this meeting.

Projects complying with this section must provide supplemental onsite control of secondary pollutants when the project is determined to contain areas that have the potential for high



~~pollutant discharges, or “hot spots.” Stormwater pollution hot spots are characterized as having a higher probability than the rest of the site to release pollutants and include:~~

- ~~1. Vehicle maintenance and repair facilities~~
- ~~2. Fueling areas~~
- ~~3. Areas of restaurant sites associated with waste and grease storage and handling~~
- ~~4. Vehicular areas associated with drive thrus, including restaurants and businesses with multiple drive thrus~~
- ~~5. Salvage yards and recycling facilities~~
- ~~6. Fleet storage yards and vehicle cleaning facilities~~
- ~~7. Vehicular areas on sites where the portion of BUA associated with automobiles (parking area, drive thrus, drive aisles, other vehicular related) is greater than 6050% of the total built upon site area, excluding parking decks, or exceeds one (1) acre~~
- ~~8. Commercial and retail nursery operations~~
- ~~9. Other uses designated by the Stormwater Ordinance Administrator~~

~~All controls must be designed, constructed and maintained in accordance with the Charlotte-Mecklenburg BMP Design Manual and the provisions contained in this Manual. Only the portion of the site that exhibits the characteristics of a hot spot must provide supplemental onsite control of secondary pollutants. The following controls are allowed for uses #1 through #7 above:~~

- ~~1. Catch Basin Inserts or Sumps~~
- ~~2. Vegetated Swales/Filter Strips~~
- ~~3. Stormwater Filters~~
- ~~4. Trash/Debris Collectors in Catch Basins~~

~~The following controls are allowed for use #8 above:~~

- ~~1. Vegetated Swales/Filter Strips~~
- ~~2. Constructed Wetlands~~
- ~~3. Stormwater Collection and Reuse~~

~~Other controls may be approved by Stormwater Ordinance Administrator.~~

Onsite controls are required for the following landuses types: office, business, industrial, manufacturing, and institutional. These onsite controls must include **at least one** of the options from “a” below for water quality treatment and must include “b” below for volume and peak control. Fee reductions for these onsite controls are described in “c” below. If the Stormwater Administrator determines that physical conditions at a site preclude compliance “a” and/or “b” below, then the requirement for onsite controls may be waived in which case the full fee must be paid per acre of built-upon area.

- a) Water Quality Treatment (select at least one):
 - 1) Sediment sump - 20% of the volume of a required detention basin will be converted into a sediment storage area and be available for, and designed to capture pollutants. An altered sediment storage area will be detailed in the Design Manual. Sediment removal from the basin (pumping out and disposal of pollutants) will be required on a routine basis, not to exceed twice annually.



Stormwater Mitigation Fee Task Force Consensus Document for October 8, 2015

- 2) Parking lot/vehicular area sweeping - Areas that are exposed to rainfall and are subject to vehicular traffic will be swept/vacuumed twice monthly and reported annually. Specifics will be developed and included in the Design Manual.
 - 3) Reduce built-upon-area by 10% - Reductions in impervious area reduces pollutants.
 - 4) Reduce parking lot/vehicular area by 50% by converting to roof top - Reductions in vehicular area reduces pollutants.
 - 5) Treat a portion of the site using structural stormwater controls from the Charlotte-Mecklenburg BMP Design Manual.
- b) Volume & Peak Control:
Provide 1-year, 24-hour volume control and 10-year, 6-hour peak control for stormwater leaving the site when required based on analyses for volume and peak control as well as for the presence of a quality stream segment. These analyses will be performed downstream to a point where the site is less than 10% of the overall drainage area (10% rule).
- c) Fee Reductions:
Half of the fee may be reduced by satisfying the water quality treatment requirements indicated in “a” above. The other half of the fee may be reduced by satisfying the volume and peak control and quality stream protection requirements indicated in “b” above.
- 1) Water Quality - For the onsite water quality treatment options in “a” above, at least one of the five (5) options must be implemented onsite. If options 1 through 4 in “a” are selected, then no mitigation fee reduction will be allowed for first option used. If two (2) of options 1 through 4 are selected, the mitigation fee for water quality will be reduced by 15%, which is 7.5% of the total fee (15% of 50%). If three (3) of options 1 through 4 are selected, the mitigation fee for water quality will be reduced by 30%, which is 15% of the total fee (30% of 50%). If all four (4) of options 1 through 4 are selected, the mitigation fee for water quality will be reduced by 45%, which is 22.5% of the total fee (45% of 50%). If option 5 in “a” is selected, the mitigation fee will be reduced proportionately based on the amount of the site treated and no additional water quality treatment measure will be required. In other words, if 1/3 of the runoff from a site is treated in a sand filter, then the water quality fee will be reduced by 1/3, which is 16.5% of the total fee (1/3 of 50%).
 - 2) Volume and Peak Control – If the volume and peak control requirements in “b” above are satisfied, the mitigation fee for volume and peak control will be reduced by 100%, which is 50% of the total fee (100% of 50%).
 - 3) The Stormwater Administrator may allow partial fee credit as deemed necessary based on site conditions.



Alternative #2: Quality Stream Review

During the Task Force meeting held on June 25, 2015, consensus was reached on the ordinance language changes shown in “red” below. During the October 8, 2015 meeting, this text will be considered for deletion because it is being addressed in the ordinance text for Alternative #1.

Ordinance Language (shown below in Italics)

*(c) ~~Redevelopment not within transit station areas or distressed business districts. Projects involving redevelopment of existing built-upon area and the cumulative addition of less than 20,000 square feet of new built-upon area, are allowed by right to forego meeting the requirements of this article, except for required stream buffers and phosphorous requirements, provided **stream quality is protected as described in the administrative manual and** one of the following measures is implemented on the site:~~*

Additions to Administrative Manual (shown below in Italics)

During the Task Force meeting held on June 25, 2015, consensus was reached on the text shown below for addition to the Administrative Manual. Strikethroughs indicate that text will be considered for deletion during the October 8, 2015 meeting because it is being addressed in the ordinance text for Alternative #1.

The following procedures are for the determination of stream quality for the provisions within the City of Charlotte Post Construction Stormwater Ordinance (PCSO) Section 18-161(c).

Desktop Assessment

To determine whether a field stream assessment is required:

1. *Delineate the “zone of influence” for the site, which is the downstream point where the drainage area controlled onsite comprises 10% or less of the total drainage area.*
2. *Go to Virtual Charlotte (<http://vc.charmeck.org>) and turn on the layers within the Stormwater Group as well as the most recent aerial photograph.*
3. *Locate on the aerial where stormwater from the proposed redevelopment enters the first open channel. If this location is downstream of the zone of influence defined in #1, then a quality stream does not exist and the assessment is concluded. The aerial must be submitted to the PCSO Administrator for verification.*
4. *If stormwater from the proposed redevelopment enters the first open channel upstream of the zone of influence, measure 500 feet down from this point to identify the terminus point of the evaluation.*
5. *Measure a twenty (20) foot buffer on either side of the estimated centerline of the channel. The total buffer width (both sides of the channel combined) should average forty (40) feet. (note: the average is taken to account for small segments that don't have a wooded buffer).*
6. *Answer the following questions:*
 1. *Is there a continuous stretch of open channel for 500 feet?*
 - Yes = Move to question 2*
 - No = No field stream assessment required*



- 2. *Along this 500 foot open channel is there on average a 40 -foot wooded buffer?*
 - Yes = Field stream assessment required*
 - No = No field stream assessment required*

If you answered “No” to either of these questions, then a quality stream does not exist and the assessment is concluded. A copy of the aerial with site assessment area and determination of questions 1 and 2 indicated must be submitted to the PCSO Administrator for verification. If you answered “Yes” to both of these questions, a field visit is required.

Field Stream Assessment

If a field visit is required, the applicant can provide either of the following to the PCSO Administrator to demonstrate the project does not empty into a quality stream:

- 1. *Provide photo documentation of the existing degraded channel conditions or proof that the open channel is not a jurisdictional stream. Photos should be clear and provide evidence that the channel would not be classified as a stream or would be ranked as a low quality stream according to the North Carolina Stream Assessment Methodology (NCSAM). A map locating where the photos were taken must accompany the submittal. CMSWS will review the photos and reserves the right to request a NCSAM evaluation be performed before confirming the stream is not a quality stream segment.*
- 2. *Complete a NCSAM evaluation to document the quality of the open channel receiving stormwater from the proposed redevelopment. This form must be completed by an individual trained and certified to complete the NCSAM evaluations. If the NCSAM rating is medium or high, then the stream is consider a quality stream for the purposes of this ordinance.*

The PCSO Administrator may field verify the submittals. If a field stream assessment is required, a copy of the aerial with site assessment area and determination of questions 1 and 2 indicated along with photos or NCSAM evaluation must be submitted to the PCSO Administrator for verification that the stream is not a quality stream for purposes of the PCSO. Unless verified by the PSCO Quality Stream Assessment, all streams are considered quality streams and must comply with the quality stream requirements specified below.

Quality Stream Requirements

~~*If a quality stream exists based on the above assessment, provide one-year, 24-hour volume control and ten-year, six-hour peak control for entire project with pretreatment. Following approval from the Stormwater Ordinance Administrator, the following onsite controls may be used when peak/volume control is not achievable due to conditions specific to the site:*~~

- ~~1. *Catch Basin Inserts or Sumps*~~
- ~~2. *Vegetated Swales/Filter Strips*~~
- ~~3. *Stormwater Filters*~~
- ~~4. *Trash/Debris Collectors in Catch Basins*~~
- ~~5. *Vegetated Swales/Filter Strips*~~
- ~~6. *Constructed Wetlands*~~
- ~~7. *Stormwater Collection and Reuse*~~
- ~~8. *Other controls approved by Stormwater Ordinance Administrator*~~



Alternative #3: Approval Process

During the October 8, 2015 meeting, no text will be considered for addition to the ordinance or Administrative Manual regarding Alternative #3 because the necessary details regarding the approval process are provided in Alternative #1.



Alternative #4: Mitigation Fee

Changes to Administrative Manual (shown below in Italics)

During the October 8, 2015 meeting, the text below will be considered for addition to the Administrative Manual regarding the fee. No text is proposed for the ordinance other than what is indicated under Alternative #1.

The base rate for the mitigation fee is set at the City’s per acre cost to provide offsite mitigation as established by the City Engineer. Mitigation ratios are applied to this base rate to set the mitigation fees. These mitigation ratios vary based on the total acres of built-upon area (BUA) up to a maximum site area of five (5) acres. The total acres of built-upon area on the site is multiplied by the mitigation fee to calculate the total mitigation payment required. The base rate and mitigation fees are adjusted as necessary in March of every year based on the 3-year average total costs for the City to provide offsite mitigation. Current fees will be maintained on the stormwater website. The table below provides the current base rate, mitigation ratios and mitigation fees.

<i>BUA Area Categories</i>	<i>Base Rate</i>	<i>Mitigation Ratio</i>	<i>Mitigation Fee</i>
<i>1st acre</i>	<i>\$30,000</i>	<i>2.5:1</i>	<i>\$75,000/first acre (prorated)</i>
<i>>1 acre and ≤2 acres</i>	<i>\$30,000</i>	<i>3.0:1</i>	<i>\$90,000/second acre (prorated)</i>
<i>>2 acre and ≤3 acres</i>	<i>\$30,000</i>	<i>3.5:1</i>	<i>\$105,000/third acre (prorated)</i>
<i>>3 acres and ≤4 acres</i>	<i>\$30,000</i>	<i>4.0:1</i>	<i>\$120,000/fourth acre (prorated)</i>
<i>>4 acres and ≤5 acres</i>	<i>\$30,000</i>	<i>4.5:1</i>	<i>\$135,000/fifth acre (prorated)</i>

Notes:

- (1) Fees reductions for the use of onsite controls are described in the text for addition to the Administrative Manual described under Alternative 1 on page 5.*
- (2) Categories used to set the per acre fee are based on the built-upon area (BUA) of the site. The five (5) acre cap on the use of the mitigation fee is based on site area. To pay a fee for redevelopment on a portion of a larger site, the fee shall be allowable on the new built-upon area associated with a maximum disturbance of five (5) acres, cumulative since the date of adoption.*
- (3) Fees are charged per built-upon acre constructed since inception of this section of the ordinance. All the fees are based on a sum of the per acre fees as specified in the table above.*

**Stormwater Mitigation Fee Task Force
Proposal 4.4
10/6/15**

**Alternative #1: Onsite Water Quality Control Measures &
Alternative #2: Quality Stream Review**

Marc's Proposal	Eric's Proposal	Proposal 4.4
All sites will be evaluated by the Storm Water Administrator to determine if 1-year, 24-hour volume control and 10-year, 6-hour peak control with pretreatment to achieve the water quality goals will be required based upon a downstream analysis including current parameters and the addition of the quality stream assessment.	1.All sites will provide 1-year, 24-hour volume control and 10-year, 6-hour peak control with pretreatment to achieve the water quality goals.	Onsite water quality, volume and peak controls are required as determined by the Stormwater Administrator. A reduction in the per acre mitigation fee will be allowed based on the amount of onsite treatment provided.
(Exception to #1) a.Storm Water Administrator determines that physical conditions at the site preclude compliance with this requirement. Examples include brownfield sites, sites with major utility conflicts, inadequate or shallow adjacent storm water infrastructure, and etc. b.Project discharges directly to a FEMA stream (draining ≥ 640 acres).	(Exception to #1) a.Storm Water Administrator determines that physical conditions at the site preclude compliance with this requirement. (Note: Examples include brownfield sites, sites with major utility conflicts, inadequate or shallow adjacent stormwater infrastructure, etc.) b.This means that the 10% rule is inapplicable and all sites comply.	(Exception to #1) a.Stormwater Administrator determines that physical conditions at the site preclude compliance with this requirement. b.Analysis to the point where the site is less than 10% of the overall drainage area (10% rule) applies.
Sites greater than five (5) acres will not be eligible for this mitigation.	Sites greater than three (3) acres will not be eligible for this mitigation fee option and otherwise must comply fully with on-site volume and water quality controls.	Only sites less than or equal to five (5) acres will be eligible for this mitigation. In limited cases on larger sites, a mitigation fee may be paid, but on no more than 5 acres of the total site and the limits of disturbance must be limited to 5 acres since the effective date of this section.

Marc's Proposal	Eric's Proposal	Proposal 4.4
	The agreed upon fees will be indexed every 5 years to inflation.	The base rate for the mitigation fee is set at the City's per acre cost to provide offsite mitigation as established by the City Engineer. Mitigation ratios are applied to this base rate to set the mitigation fees. These mitigation ratios vary based on the total acres of built-upon area up to a maximum site area of five (5) acres. Each acre of built-upon area is charged a set fee/acre and then the amounts per acre are summed. The base rate and mitigation fees are adjusted as necessary in March of every year based on the 3-year average total costs for the City to provide offsite mitigation. Current fees will be maintained on the stormwater website.

Alternative #4.3: Fee

The table below describes the current fee structure and proposals offered Eric Spengler and Marc Houle as well as a Proposal 4.4 approved by City staff following input received from the Task Force at the September 24, 2015 meeting regarding Proposal 3.

BUA Categories	Current Fee	Marc's Proposal	Eric's Proposal	Proposal 4.4
With Stormwater Treatment				
1 st acre	\$60,000	\$35,000	\$54,000	(2)(3)(4)
>1 acre and <3 acres	\$60,000	\$35,000	\$54,000	(2)(3)(4)
≥3 acres and ≤5 acres	\$60,000	\$35,000	Full Compliance or \$120,000	(2)(3)(4)
Without Stormwater Treatment (6)				
1 st acre	\$60,000	\$75,000	\$80,000	\$75,000/first acre (prorated)
>1 acre and ≤2 acres	\$90,000	\$100,000	\$120,000	\$90,000/second acre (prorated)
>2 acre and ≤3 acres	\$90,000	\$100,000	\$120,000	\$105,000/third acre (prorated)

BUA Categories	Current Fee	Marc's Proposal	Eric's Proposal	Proposal 4.4
>3 acres and ≤4 acres	\$90,000	\$100,000	\$160,000	\$120,000/fourth acre (prorated)
>4 acres and ≤5 acres	\$90,000	\$100,000	\$160,000	\$135,000/fifth acre (prorated)

Notes:

- Categories used to set the per acre fee are based on the built-upon area (BUA) of the site. The five (5) acre cap on the use of the mitigation fee is based on site area. To pay a fee for redevelopment on a portion of a larger site, the fee shall be allowable on the new built-upon area associated with a maximum disturbance of five (5) acres, cumulative since the date of adoption.
- Fees are charged per built-upon acre constructed since inception of this section of the ordinance. All the fees are based on a sum of the per acre fees as specified in the table above. Proposal 4.4 includes *mitigation ratios* that are multiplied by the City's most current 3-year average cost to provide offsite mitigation, currently \$30,000, to determine the mitigation fee. These mitigation ratios begin at 2.5:1 or \$75,000 for the 1st acre and increase by 0.5 for each area category up to 4.5:1 for 4 to 5 acres.
- Onsite controls can protect/improve water quality immediately downstream of redevelopment sites and upstream of regional BMPs installed for mitigation (referred to as headwater streams). However, some landuses generate minimal nonpoint source pollutants and the effectiveness of onsite controls at removing pollutants significantly diminishes with lower pollutant concentrations. In addition, the installation of onsite controls is significantly more expensive for redevelopment. Therefore, the installation of onsite controls for some redevelopment can have insignificant downstream benefit but at a very high cost. On the other hand, regional BMPs receive greater pollutant concentrations and are therefore considerably more effective on a regional scale at pollutant removal than onsite controls. In addition, the cost per acre treated is considerably less for regional compared to onsite controls thus providing a significantly improved cost/benefit. To achieve a balance between the use of onsite controls for the protection of headwater streams and the use of regional controls for watershed scale restoration, the amount of onsite treatment could be based on estimated pollutant concentrations generated for different landuses for the purpose of maximizing cost/benefit while continuing to ensure the availability of sufficient funds to support the installation of regional devices. This is the basis for the development of the onsite treatment requirements and fee reduction criteria described in #4 below. To estimate pollutant concentrations generated from different landuses, staff analyzed storm water monitoring data collected between 2004 and 2015 by Charlotte-Mecklenburg Storm Water Services from small drainages with relatively homogeneous landuse types, including 399 data points. This data was validated by comparing it to outputs from a predictive model of constituent yields based on land use that was developed by the U.S. Geological Survey (USGS) from storm water monitoring data collected from nine (9) monitoring sites in the City of Charlotte between 1994 and 1998 (USGS Report #99-273). The highest pollutant concentrations were found in stormwater from industrial and commercial sites, thereby concluding the greatest negative potential to receiving waters came from these landuses. A review of Chapter 9, Part 1, Section 9.101 of Charlotte's Zoning Ordinance revealed that the industrial and commercial sites included in the data set were best represented by the

following landuse types: office, business, industrial, manufacturing, and institutional. Based on a review of historical data, five (5) options were determined to provide the reduction in pollutant concentrations for these landuses sufficient to protect downstream water quality, including sediment sumps, parking lot/vehicular area sweeping, reduced built-upon area, and parking lot/vehicular area conversion. In addition, water quality treatment can also be achieved by treating a portion of a site using structural stormwater controls contained in the Charlotte-Mecklenburg BMP Design Manual. The Stormwater Administrator can modify these options as necessary based on site conditions. Fee reductions will be provided for the use of these options. The use of multiple options will result in increased fee reductions.

4. Onsite controls are required for the following landuses types: office, business, industrial, manufacturing, and institutional. These onsite controls must include *at least one* of the options from “a” below for water quality treatment and must include “b” below for volume and peak control. Fee reductions for these onsite controls are described in “c” below. If the Stormwater Administrator determines that physical conditions at a site preclude compliance “a” and/or “b” below, then the requirement for onsite controls may be waived in which case the full fee must be paid per acre of built-upon area.
 - a) Water Quality Treatment (select at least one):
 - 1) Sediment sump - 20% of the volume of a required detention basin will be converted into a sediment storage area and be available for, and designed to capture pollutants. An altered sediment storage area will be detailed in the Design Manual. Sediment removal from the basin (pumping out and disposal of pollutants) will be required on a routine basis, not to exceed twice annually.
 - 2) Parking lot/vehicular area sweeping - Areas that are exposed to rainfall and are subject to vehicular traffic will be swept/vacuumed twice monthly and reported annually. Specifics will be developed and included in the Design Manual.
 - 3) Reduce built-upon-area by 10% - Reductions in impervious area reduces pollutants.
 - 4) Reduce parking lot/vehicular area by 50% by converting to roof top - Reductions in vehicular area reduces pollutants.
 - 5) Treat a portion of the site using structural stormwater controls from the Charlotte-Mecklenburg BMP Design Manual.
 - b) Volume & Peak Control:

Provide 1-year, 24-hour volume control and 10-year, 6-hour peak control for stormwater leaving the site when required based on analyses for volume and peak control as well as for the presence of a quality stream segment. These analyses will be performed downstream to a point where the site is less than 10% of the overall drainage area (10% rule).
 - c) Fee Reductions:

Half of the fee may be reduced by satisfying the water quality treatment requirements indicated in “a” above. The other half of the fee may be reduced by satisfying the volume and peak control and quality stream protection requirements indicated in “b” above.

 - 1) Water Quality - For the onsite water quality treatment options in “a” above, at least one of the five (5) options must be implemented onsite. If options 1

through 4 in “a” are selected, then no mitigation fee reduction will be allowed for first option used. If two (2) of options 1 through 4 are selected, the mitigation fee for water quality will be reduced by 15%, which is 7.5% of the total fee (15% of 50%). If three (3) of options 1 through 4 are selected, the mitigation fee for water quality will be reduced by 30%, which is 15% of the total fee (30% of 50%). If all four (4) of options 1 through 4 are selected, the mitigation fee for water quality will be reduced by 45%, which is 22.5% of the total fee (45% of 50%). If option 5 in “a” is selected, the mitigation fee will be reduced proportionately based on the amount of the site treated and no additional water quality treatment measure will be required. In other words, if 1/3 of the runoff from a site is treated in a sand filter, then the water quality fee will be reduced by 1/3, which is 16.5% of the total fee (1/3 of 50%).

- 2) Volume and Peak Control – If the volume and peak control requirements in “b” above are satisfied, the mitigation fee for volume and peak control will be reduced by 100%, which is 50% of the total fee (100% of 50%).
- 3) The Stormwater Administrator may allow partial fee credit as deemed necessary based on site conditions.

The following example is provided.

A 1.5 acre site designated as an office landuse is proposed for redevelopment and requests use of the mitigation fee. Since this is a landuse demonstrated to generate higher pollutant concentrations, a minimum of one of the options for water quality treatment described in 4a must be satisfied. To determine the requirements for volume, peak and quality stream protection as described in 4b above, the 10% Rule must be used to establish the downstream extent of the stream channel to be evaluated using established criteria. The following scenarios describe how compliance and the mitigation fee would vary based on the results of these downstream analyses. The mitigation fee for the 1.5 acre site without controls is \$75,000 for the first acre, and \$45,000 for the additional half acre (half of \$90,000), or \$120,000.

Scenario 1 – Downstream analysis reveals a quality stream segment: A minimum of one of the options for water quality treatment described in 1 through 4 in 4a above must be satisfied. No fee reduction is allowed for the first option. If two (2) of the options are satisfied, a 7.5% reduction in the total fee is allowed. In addition, volume and peak requirements must be satisfied with a 50% allowed reduction in the total fee. The total fee reduction is 57.5% of \$120,000 or \$51,000.

Scenario 2 – Downstream analysis reveals need for volume and peak control: Same as Scenario 1 above.

Scenario 3 – Downstream analysis reveals volume and peak control is not required and there is not a quality stream segment: A minimum of one of the options for water quality treatment described in 1 through 4 in 4a above must be satisfied. No fee reduction is allowed for the first option. If two (2) of the options are satisfied, a 7.5% reduction in the total fee of \$120,000 is allowed or \$111,000.

The table below provides a comparison between the actual fees paid by 16 projects approved for use of the mitigation option and the fees calculated for the three (3) proposals currently under consideration.

**Proposal Comparison Table
October 6, 2015**

Project Name	Project Acres	Mitigated BUA	Disturbed Acres	Current Fee	Marc Houle Proposal	Eric Proposal	Proposal 4.2	Comp. Ratio for 4.2 ⁽¹⁾	Proposal 4.4	Comp. Ratio for 4.4 ⁽¹⁾	On-site Controls
Circle University City Apts.	2.11	2.11	2.11	\$159,900	\$73,850	\$113,940	\$88,275	94.01%	\$88,275	94.01%	Underground Detention
7-Eleven N Wendover	1.07	0.76	1.27	\$45,600	\$26,600	\$41,040	\$28,500	84.27%	\$28,500	84.27%	Underground Detention
Drexel Place Apts.	1.13	0.89	1.11	\$53,400	\$31,150	\$48,060	\$33,375	84.27%	\$33,375	84.27%	Underground Detention
Duke Endowment	1.77	1.26	1.99	\$75,600	\$44,100	\$68,040	\$49,200	87.75%	\$41,820	74.59%	Detention, >10% reduction in BUA, >50% reduction in vehicular area ⁽⁵⁾
Hendrick Luxury Collision Center	6.98	0.80	0.76	\$47,800	\$28,000	\$43,200	\$30,000	84.27%	\$30,000	84.27%	Underground Detention
Hendrick Motors of Charlotte Autohaus Final Engineering Plans	5.37	4.67	5.6 ⁽²⁾	\$280,000	\$0	\$0	\$0	N/A	\$0	N/A	Underground Detention
McDonald's - Wendover	1.68	1.10	1.36	\$65,960	\$38,500	\$59,400	\$42,000	85.80%	\$42,000	85.80%	Underground Detention
South Kings Midtown	2.53	1.88	2.91	\$112,800	\$65,800	\$101,520	\$77,100	92.16%	\$77,100	92.16%	Underground Detention
Southpark Autobell	1.8	0.90	1.64	\$54,000	\$31,500	\$48,600	\$33,750	84.27%	\$33,750	84.27%	Underground Detention
Kenwood Myers Park	1.03	0.65	0.99	\$30,600	\$22,750	\$35,100	\$24,375	84.27%	\$24,375	84.27%	Permeable Pavement
7 Eleven #35580 Pineville Matthews Rd	1.19	0.59	0.76	\$33,200	\$44,250	\$47,200	\$44,250	96.77%	\$44,250	96.77%	N/A

Project Name	Project Acres	Mitigated BUA	Disturbed Acres	Current Fee	Marc Houle Proposal	Eric Proposal	Proposal 4.2	Comp. Ratio for 4.2 ⁽¹⁾	Proposal 4.4	Comp. Ratio for 4.4 ⁽¹⁾	On-site Controls
Bank of the Ozarks	1.03	0.79	0.89	\$47,400	\$59,250	\$63,200	\$59,250	96.77%	\$59,250	96.77%	N/A
Charlotte Catholic High School Deck and Stadium Expansion	4.00	2.85	4 ⁽³⁾	\$226,410	\$260,000	\$0	\$254,250	N/A	\$254,250	N/A	N/A
Crescent Dilworth	2.48	1.88	2.48	\$138,750	\$163,000	\$185,600	\$154,200	88.47%	\$154,200	88.47%	N/A
Harris Teeter - Ballantyne	15.84	1.00	1.50	\$60,000	\$75,000	\$80,000	\$75,000	96.77%	\$75,000	96.77%	N/A
Stratford Apartments Revision	6.75	3.26	5.6 ⁽²⁾	\$265,200	\$0	\$0	\$0	N/A	\$0	N/A	N/A
Total of 16 Projects	60	25.39	37.79	\$1,696,620	\$963,750	\$934,900	\$993,525	92.05%⁽⁴⁾	\$986,145	91.37%⁽⁴⁾	N/A
Total of projects under 5 acres of disturbed area				\$1,151,420							

NOTES:

- (1) The Comp. Ratio is the percentage of compromise represented by the Middle Ground Proposal. A Comp. Ratio of 100% indicates that the value represented by the Middle Ground Proposal fails directly in the middle between the values represented by Marc's and Eric's Proposals.
- (2) Exceeds 5 acres and is not included in any of the proposals under consideration.
- (3) Exceeds 4 acres and is not included in Eric's proposal.
- (4) This is an adjusted Comp. Ratio calculated by subtracting Charlotte Catholic from the Middle Ground Proposal and Marc's Proposal since no value is represented for Eric's Proposal.
- (5) A 7.5% reduction for water quality treatment is allowed under Proposal 4.4.

Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, October 22, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
5:00 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Dr. Craig Allan
Nancy Carter
Roger Coates
Paisley Gordon, Jr.
Marc Houle
Sam Perkins
Rick Roti
Eric Spengler
Steve Wilson
Dr. Jy Wu

ABSENCE: Voting Member

Nate Doolittle
David Robinson
Ken Szymanski

ATTENDANCE: Alternate

Steve Copulsky
Bryan Holladay
Rob Nanfelt
Joe Padilla

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock - Speaker
Tom Ferguson
Mike MacIntyre
Jordan Miller
Marc Recktenwald
Tim Richards
Karen Weatherly

HANDOUTS:

Agenda
Stormwater Mitigation Fee Task Force Consensus Documents
Consensus Building Table

Proposal Comparison Graph

I. Welcome, Review of Minutes and Previous Questions – Rusty Rozzelle

Mr. Rozzelle opened the meeting by asking for any comments on the meeting minutes from the October 8th meeting. No comments were received and the minutes were approved. The approved minutes will be posted on the website. Mr. Rozzelle also asked for any further questions regarding the information that was provided to answer the questions from the previous meeting. No further questions or comments were received.

II. Mitigation Concepts – Daryl Hammock

Mr. Hammock presented some new information from a recent Southeast Stormwater Association conference about the creation of three offsite mitigation/in-lieu fee programs in Florida, Georgia, and Tennessee. He observed that so far, environmental or economic data has not been provided to support limiting the mitigation fee, and that the quality stream analysis and downstream analysis are key to watershed protection. The following questions and comments were received:

- A. Is the value of 12 kg/yr based on an aggregate or total pollutant removal for all ponds (see slide 5)?
- This was the total pollutant removal required for the project. The regional pond was able to provide 500 kg/yr removal of the target pollutant.
- B. Are the points in the presentation based on the views of staff?
- Yes, based on scientific data. Any scientific or analytical reasons to refute these views are welcome.

III. Consensus Table Summary and Proposal 4.5 – Rusty Rozzelle

Mr. Rozzelle provided a summary of the responses received from all members on Middle Ground Proposal 4.4. The following questions and comments were received:

- A. How is proposal 4.5 different from proposal 4.4 with regards to on-site requirements?
- **All** land uses are required to provide on-site water quality from the five options and the language is clearer on requiring detention for the entire site if there is an increase in built-upon area.

- B. If a project is unable to control on-site, who makes that decision?
- The Stormwater Administrator can make this determination. If the developer would like to appeal, they can submit for a variance to be heard by the Stormwater Advisory Committee (SWAC).
- C. How often do variances result in a project paying the fee?
- The project will be required to do some form of mitigation and this is typically determined to be a fee.

Mr. Rozzelle then provided an overview of Middle Ground Proposal 4.5. The following questions and comments were received:

- A. Was proposal 4.4 abandoned?
- Yes. Staff used the task force member comments from 4.4 to draft proposal 4.5.
- B. Where are the details of Middle Ground Proposal 4.5?
- The details are in the consensus document handed out. This will also be emailed to the members following the meeting.
- C. Who maintains the on-site controls?
- The owner of the site is responsible for the maintenance of any on-site controls.
- D. Does proposal 4.5 allow for the 50% reduction of the fee or any reduction based on partial onsite control?
- No, proposal 4.5 allows for a 25% fee reduction if detention is provided along with the specified number of water quality options determined by the downstream analysis.
- E. Is the fee for the existing ordinance prorated?
- Yes.
- F. Does the site area only determine whether a project is allowed to pay the fee, and then the built-upon area determines the fee amount?
- Yes.
- G. What is the threshold for when to use disturbed area or site area for the cap determination?
- This has not been decided.
- H. Is the fee prorated and cumulative for phased development?
- Yes.
- I. Is the “Current” category on the provided graph based on the proposal or the existing ordinance on file?
- This is based on the existing ordinance as currently implemented.
- J. How many sites of the 16 projects were considered above the five acre maximum site size, and did they provide detention?
- Two sites were above the five acre maximum site size and one of the two sites provided detention.

Mr. Rozzelle then asked to go around the table and ask each member whether or not they could live with Middle Ground Proposal 4.5. If they could not live with proposal 4.5, they were asked to provide what additional information would be needed to come to consensus. The responses are shown in the attached consensus table.

IV. Closing and Adjournment – Rusty Rozzelle

Mr. Rozzelle offered to any interested members to meet with staff in a small group to resolve any additional questions prior to the next meeting. He asked that members contact him within the next day if interested.

There being no further business, Mr. Rozzelle adjourned the meeting. The next Task Force meeting is scheduled for Thursday, November 12, 2015 from 5:00 p.m. to 7:00 p.m., and will be held in Conference Room 266 at the Charlotte-Mecklenburg Government Center.

Consensus Building

Proposal 4.5

Task Force Member	Can you “live with” Proposal 4.5 (without 5 acre cap unless otherwise specified)? (Yes / No/Not Sure)	If you cannot live with the proposal, what additional information would be needed to reach consensus?	Comments
Steve Wilson, Real Estate & Building Industry Coalition (REBIC)	Yes		Would like increased reduction above 25%. More money for the mitigation program along with more redevelopment is good for Charlotte.
Joe Padilla (for Nate Doolittle), National Association of Industrial & Office Properties (NAIOP)	Yes		Prefer to not have a cap. Would like increased reduction above 25% or a lower base fee. More on-site controls add more risks for continued compliance and maintenance.
Roger Coates, Charlotte Citizen	Yes		Appreciate the emphasis on quality stream protection.
Marc Houle, Charlotte Chamber of Commerce	Yes		Would prefer proposal without 5 acre cap. Would like increased reduction above 25%. Would like to incentivize use of mitigation program.
Bryan Holladay (for Ken Szymanski), Charlotte Apartment Association	Yes		At consensus without a 5 acre cap. Pointed out that City Council still has to come to consensus with what the Task Force will recommend and may change the decisions made on the Task Force.
Nancy Carter, Charlotte Citizen	Yes		
Eric Spengler, Sustain Charlotte	Not Sure	<ol style="list-style-type: none"> 1. Would like to see how the funds collected may change with a two tier fee structure for simplicity: <ul style="list-style-type: none"> • <1 – 3 acres = 3.0 multiplier (\$90,000/acre) • >3 acres = 4.0 multiplier (\$120,000/acre) 2. Would like more information about implementation and continued compliance inspections and penalties. 	Likes the simplicity and quality stream inclusion. Likes that more money would be brought into the program for regional controls.
Sam Perkins, Catawba Riverkeeper Foundation	Not Sure	Would like more information on regional control location in watershed.	Would like more of a funding increase for the mitigation program. Would be nice to apply this to

Consensus Building

Proposal 4.5

Task Force Member	Can you “live with” Proposal 4.5 (without 5 acre cap unless otherwise specified)? (Yes / No/Not Sure)	If you cannot live with the proposal, what additional information would be needed to reach consensus?	Comments
		Would like a summary of how proposal 4.5 is better than existing ordinance.	entire city. Would like to have the allowance of a fee tied to the opportunity within the 10% watershed.
Dr. Craig Allan, Academic Representative, UNC Charlotte	Yes		Likes clearer language. Agrees with Dr. Wu.
Rick Roti, Charlotte Public Tree Fund and Sierra Club	Not Sure	Would like more information on regional control location in watershed.	Mostly concerned with the “red line” between the regional controls and the redevelopment sites. Agree that regional controls are more cost effective.
Dr. Jy S. Wu, Academic Representative, UNC Charlotte	Yes		Fee important for the city. Would like for there to be a way to further incentivize redevelopment in less prosperous neighborhoods.
Rob Nanfelt (for Paisley Gordon), Commercial Board of Realtors	Yes		
Steve Copulsky (for David Robinson), Sierra Club (Central Piedmont Group)	Not Sure		

Stormwater Mitigation Fee Task Force

October 22, 2015
4:30 p.m. Room 266, CMGC

Meeting Agenda

5 minutes – Welcome, review of minutes
Rusty Rozzelle

10 minutes – Information update & responses to questions asked during the October 8th meeting
Daryl Hammock

1 hour, 40 minutes – Consensus building for new Proposal 4.5
Rusty Rozzelle

5 minutes – Process forward/adjournment
Rusty Rozzelle

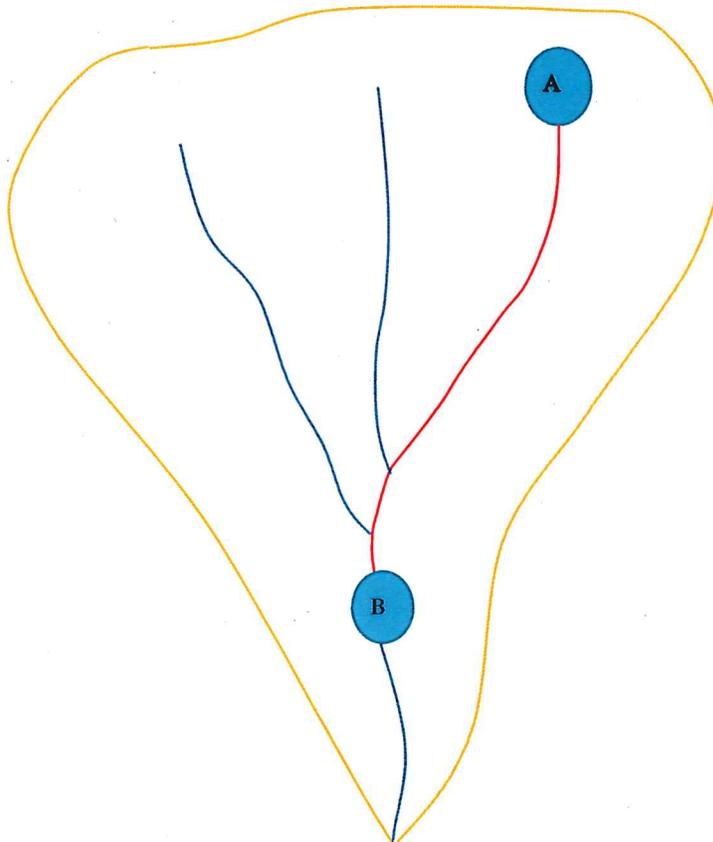
**Stormwater Mitigation Fee Task Force
Consensus Document
October 22, 2015**

Framework for Consensus:

During the May 28, 2015 meeting of the Stormwater Mitigation Fee Task Force, consensus was reached on the following. The figure below is meant to help clarify these statements.

1. The installation of a regional BMP at B using a mitigation fee collected from a redevelopment site at A is effective at compensating on a watershed scale (outlined in orange) for the impacts associated with non-compliance with ordinance requirements on-site at A.
2. However, the regional BMP at B does not effectively limit or reverse the downstream impacts (red line) from the existing development and/or the redevelopment at A and upstream of the regional BMP at B.

Can you live with concluding our deliberations in support of Paragraph 18-161(c) of Charlotte's Post-Construction Ordinance when consensus is reached regarding specific alternatives to be included to address the immediate downstream impacts (red line) described in #2 above to the extent practicable?





Process Forward:

The following alternatives are proposed by staff for deliberation by the Task Force for the purpose of addressing downstream impacts to the extent practicable:

1. Onsite Water Quality Control Measures
2. Quality Stream Review
3. Approval Process
4. Mitigation Fee

Alternatives will be deliberated individually in the order presented above. Deliberations will focus on specific wording describing the alternatives that will be added to Paragraph 18-161(c) of the Ordinance and/or to the supporting Administrative Manual once consensus is reached. It is recognized that several of these alternatives are linked. In these cases, a Task Force member can “Conditionally Consent” to an alternative if the consent is based on something occurring later in the deliberation process. The Task Force member must clearly specify the conditions upon which consensus is offered. These conditions will be entered into the minutes. If future deliberations do not support these conditions, the consensus will be considered invalid.

Alternatives may be added at any time in the process by either staff or Task Force members. For a Task Force member to add an alternative, an email should be sent to Daryl Hammock and Rusty Rozzelle briefly describing the alternative. If City staff determines they can support the alternative, it will be added to the list above and the details will be worked out in coordinated with the originator of the alternative for presentation to the Task Force for deliberation. If staff cannot support the alternative, it will be tabled and if so desired the originator of the alternative can propose it for deliberation after deliberations have concluded for the staff approved alternatives. If deliberations are to be held toward achieving consensus on a particular alternative at an upcoming meeting, staff will make every attempt to provide applicable information as far in advance of the meeting as possible. The deliberation process will conclude when deliberations have been completed for all identified alternatives.



Alternative #1: Onsite Water Quality Control Measures

Ordinance Language (shown below in Italics)

During the Task Force meeting held on June 25, 2015, consensus was reached on the ordinance language changes shown in “red” below. Strikethroughs indicate that text will be considered for deletion during the October 22, 2015 meeting. Text shown in “blue” will be considered for addition during this meeting.

*(c) Redevelopment not within transit station areas or distressed business districts. Projects involving redevelopment of existing built-upon-area, the cumulative addition of less than 20,000 square feet of new built-upon-area, **and site/development area less than or equal to 5 acres**, are allowed by right to forego meeting the requirements of this article, except for required stream buffers and phosphorous requirements, provided ~~one of the following measures is implemented on the site:~~ **the city is paid a mitigation fee according to rates set forth in the administrative manual for the post-project impervious area and, if required, measures are installed onsite for water quality, volume, and peak control as well as for the protection of quality streams as specified in the Administrative Manual.***

*~~(1) If an analysis of the downstream storm water conveyance system confirms that volume and peak control facilities may be waived by the Storm Water Administrator, provide 85 percent TSS removal from the first inch of rainfall for the entire project and pay the city a mitigation fee according to rates set forth in the administrative manual **for the pre-project built-upon-area and any additional impervious area.**~~*

or

*~~(2) If an analysis of the downstream storm water conveyance system confirms that volume and peak control facilities may be waived by the Storm Water Administrator, pay the city a mitigation fee according to rates set forth in the administrative manual for the pre-project built-upon-area and any additional impervious area, **and provide limited onsite control of secondary pollutants as identified in the administrative manual.**~~*

or

*~~(3) Provide one-year, 24-hour volume control and ten-year, six-hour peak control for entire project and pay the city a mitigation fee according to rates set forth in the administrative manual for the pre-project built-upon-area and any additional impervious area. **Provide limited onsite control of secondary pollutants as identified in the administrative manual.**~~*

Additions to Administrative Manual (shown below in Italics)

During the Task Force meeting held on June 25, 2015, consensus was reached on the text shown in “black” below for addition to the Administrative Manual. Consensus was not reached on the text shown in “red” below. Strikethroughs indicate that text will be considered for deletion during the October 22, 2015 meeting. Text shown in “blue” will be considered for addition during this meeting.

Projects complying with this section must provide supplemental onsite control of secondary pollutants when the project is determined to contain areas that have the potential for high



~~pollutant discharges, or “hot spots.” Stormwater pollution hot spots are characterized as having a higher probability than the rest of the site to release pollutants and include:~~

- ~~1. Vehicle maintenance and repair facilities~~
- ~~2. Fueling areas~~
- ~~3. Areas of restaurant sites associated with waste and grease storage and handling~~
- ~~4. Vehicular areas associated with drive-thrus, including restaurants and businesses with multiple drive-thrus~~
- ~~5. Salvage yards and recycling facilities~~
- ~~6. Fleet storage yards and vehicle cleaning facilities~~
- ~~7. Vehicular areas on sites where the portion of BUA associated with automobiles (parking area, drive-thrus, drive aisles, other vehicular related) is greater than 60~~50~~% of the total built-upon site area, excluding parking decks, or exceeds one (1) acre~~
- ~~8. Commercial and retail nursery operations~~
- ~~9. Other uses designated by the Stormwater Ordinance Administrator~~

~~All controls must be designed, constructed and maintained in accordance with the Charlotte-Mecklenburg BMP Design Manual and the provisions contained in this Manual. Only the portion of the site that exhibits the characteristics of a hot spot must provide supplemental onsite control of secondary pollutants. The following controls are allowed for uses #1 through #7 above:~~

- ~~1. Catch Basin Inserts or Sumps~~
- ~~2. Vegetated Swales/Filter Strips~~
- ~~3. Stormwater Filters~~
- ~~4. Trash/Debris Collectors in Catch Basins~~

~~The following controls are allowed for use #8 above:~~

- ~~1. Vegetated Swales/Filter Strips~~
- ~~2. Constructed Wetlands~~
- ~~3. Stormwater Collection and Reuse~~

~~Other controls may be approved by Stormwater Ordinance Administrator.~~

Onsite control for quality stream protection, water quality, and detention is required when one or more of the following criteria is met:

- a. There is an increase in built-upon area associated with the redevelopment, in which case controls are required for the entire redevelopment site and not just the increased built-upon area.**
- b. Downstream analysis (applying the 10% rule) indicates detention is required.**
- c. Downstream analysis (applying the 10% rule) indicates a quality stream segment.**

The detention requirement is fulfilled when provided for the 1-year, 24-hour volume and 10-year, 6-hour peak. The water quality requirement is fulfilled when one (1) of the following options is satisfied:

- a. Sediment forebay installation - Convert 20% of the volume of a required detention basin into a sediment storage area that is available for, and designed to capture pollutants. An altered sediment storage area will be detailed in the Design**



- Manual. Sediment removal from the basin (pumping out and disposal of pollutants) will be required on a routine basis, not to exceed twice annually.*
- b. Parking lot/vehicular area sweeping - Perform sweeping/vacuuming of areas that are exposed to rainfall and are subject to vehicular traffic at least twice monthly and reported annually. Specifics will be developed and included in the Design Manual.*
 - c. Built-upon area reduction - Reduce built-upon-area by 10% at post-development compared to pre-development.*
 - d. Parking lot/vehicular area reduction - Reduce parking lot/vehicular area by 50% at post-development compared to predevelopment, including installing parking decks in which case the top floor of the parking deck (if not covered) will be included in the area calculation as parking area.*
 - e. Partial treatment - Treat a portion of the site using structural stormwater controls from the Charlotte-Mecklenburg BMP Design Manual.*

All the above options must be built, inspected and maintained in accordance with the provisions of the post-construction ordinance and/or Administrative Manual. The failure to do so could result in ordinance violations that are subject to penalties up to the maximum allowed by State law.

The quality stream protection requirement is fulfilled when onsite controls are provided for the 1-year, 24-hour volume and 10-year, 6-hour peak for stormwater leaving the site (same as the detention requirement described above); and onsite controls are installed for water quality protection by satisfying two (2) of the options listed in a through e above.



Alternative #2: Quality Stream Review

During the Task Force meeting held on June 25, 2015, consensus was reached on the ordinance language changes shown in “red” below. During the October 22, 2015 meeting, this text will be considered for deletion because it is being addressed in the ordinance text for Alternative #1. During the October 22, 2015 meeting, the text shown in “blue” below will be considered for addition to the Administrative Manual regarding quality stream protection.

Ordinance Language (shown below in Italics)

*(e) Redevelopment not within transit station areas or distressed business districts. Projects involving redevelopment of existing built-upon area and the cumulative addition of less than 20,000 square feet of new built-upon area, are allowed by right to forego meeting the requirements of this article, except for required stream buffers and phosphorous requirements, provided **stream quality is protected as described in the administrative manual and** one of the following measures is implemented on the site:*

Additions to Administrative Manual (shown below in Italics)

During the Task Force meeting held on June 25, 2015, consensus was reached on the text shown below for addition to the Administrative Manual. Strikethroughs indicate that text will be considered for deletion during the October 8, 2015 meeting because it is being addressed in the ordinance text for Alternative #1.

The following procedures are for the determination of stream quality for the provisions within the City of Charlotte Post Construction Stormwater Ordinance (PCSO) Section 18-161(c).

Desktop Assessment

To determine whether a field stream assessment is required:

- 1. Delineate the “zone of influence” for the site, which is the downstream point where the drainage area controlled onsite comprises 10% or less of the total drainage area.*
- 2. Go to Virtual Charlotte (<http://vc.charmeck.org>) and turn on the layers within the Stormwater Group as well as the most recent aerial photograph.*
- 3. Locate on the aerial where stormwater from the proposed redevelopment enters the first open channel. If this location is downstream of the zone of influence defined in #1, then a quality stream does not exist and the assessment is concluded. The aerial must be submitted to the PCSO Administrator for verification.*
- 4. If stormwater from the proposed redevelopment enters the first open channel upstream of the zone of influence, measure 500 feet down from this point to identify the terminus point of the evaluation.*
- 5. Measure a twenty (20) foot buffer on either side of the estimated centerline of the channel. The total buffer width (both sides of the channel combined) should average forty (40) feet. (note: the average is taken to account for small segments that don't have a wooded buffer).*
- 6. Answer the following questions:*
 - 1. Is there a continuous stretch of open channel for 500 feet?*



- Yes = Move to question 2
 - No = No field stream assessment required
2. Along this 500 foot open channel is there on average a 40 -foot wooded buffer?
- Yes = Field stream assessment required
 - No = No field stream assessment required

If you answered “No” to either of these questions, then a quality stream does not exist and the assessment is concluded. A copy of the aerial with site assessment area and determination of questions 1 and 2 indicated must be submitted to the PCSO Administrator for verification. If you answered “Yes” to both of these questions, a field visit is required.

Field Stream Assessment

If a field visit is required, the applicant can provide either of the following to the PCSO Administrator to demonstrate the project does not empty into a quality stream:

1. Provide photo documentation of the existing degraded channel conditions or proof that the open channel is not a jurisdictional stream. Photos should be clear and provide evidence that the channel would not be classified as a stream or would be ranked as a low quality stream according to the North Carolina Stream Assessment Methodology (NCSAM). A map locating where the photos were taken must accompany the submittal. CMSWS will review the photos and reserves the right to request a NCSAM evaluation be performed before confirming the stream is not a quality stream segment.
2. Complete a NCSAM evaluation to document the quality of the open channel receiving stormwater from the proposed redevelopment. This form must be completed by an individual trained and certified to complete the NCSAM evaluations. If the NCSAM rating is medium or high, then the stream is consider a quality stream for the purposes of this ordinance.

The PCSO Administrator may field verify the submittals. If a field stream assessment is required, a copy of the aerial with site assessment area and determination of questions 1 and 2 indicated along with photos or NCSAM evaluation must be submitted to the PCSO Administrator for verification that the stream is not a quality stream for purposes of the PCSO. Unless verified by the PSCO Quality Stream Assessment, all streams are considered quality streams and must comply with the quality stream requirements specified below.

Quality Stream Requirements

If a quality stream exists based on the above assessment, provide 1-year, 24-hour volume control and 10-year, 6-hour peak control for entire redevelopment site. In addition, select two (2) of the following options:

1. **Sediment forebay installation - Convert 20% of the volume of a required detention basin into a sediment storage area that is available for, and designed to capture pollutants. An altered sediment storage area will be detailed in the Design Manual. Sediment removal from the basin (pumping out and disposal of pollutants) will be required on a routine basis, not to exceed twice annually.**



2. *Parking lot/vehicular area sweeping - Perform sweeping/vacuuming of areas that are exposed to rainfall and are subject to vehicular traffic at least twice monthly and reported annually. Specifics will be developed and included in the Design Manual.*
3. *Built-upon area reduction - Reduce built-upon-area by 10% at post-development compared to predevelopment.*
4. *Parking lot/vehicular area reduction - Reduce parking lot/vehicular area by 50% at post-development compared to predevelopment, including installing parking decks in which case the top floor of the parking deck (if not covered) will be included in the area calculation as parking area.*
5. *Partial treatment - Treat a portion of the site using structural stormwater controls from the Charlotte-Mecklenburg BMP Design Manual.*



Alternative #3: Approval Process

During the October 22, 2015 meeting, no text will be considered for addition to the ordinance or Administrative Manual regarding Alternative #3 because the necessary details regarding the approval process are provided in Alternative #1.



Alternative #4: Mitigation Fee

Changes to Administrative Manual (shown below in Italics)

During the October 22, 2015 meeting, the text below will be considered for addition to the Administrative Manual regarding the fee. No text is proposed for the ordinance other than what is indicated under Alternative #1.

The base rate for the mitigation fee is set at the City's per acre cost to provide offsite mitigation as established by the City Engineer. This base rate is multiplied by 2.5 to set the fee for the first acre of built-upon area. This fee increases as built-upon area increases up to a maximum of five (5) acres as indicated in the table below. Each acre of built-upon area on the site is multiplied by the corresponding fee set for that acre (prorated) and all the fees are totaled to calculate the total mitigation payment required. The base rate and mitigation fees are adjusted as necessary in March of every year based on the 3-year average total costs for the City to provide offsite mitigation. Current fees will be maintained on the stormwater website. The table below provides the current base rate, mitigation ratios and corresponding mitigation fees.

<i>BUA Area Categories</i>	<i>Base Rate</i>	<i>Mitigation Ratio</i>	<i>Mitigation Fee</i>
<i>1st acre</i>	<i>\$30,000</i>	<i>2.5:1</i>	<i>\$75,000/first acre (prorated)</i>
<i>>1 acre and ≤2 acres</i>	<i>\$30,000</i>	<i>3.0:1</i>	<i>\$90,000/second acre (prorated)</i>
<i>>2 acre and ≤3 acres</i>	<i>\$30,000</i>	<i>3.5:1</i>	<i>\$105,000/third acre (prorated)</i>
<i>>3 acres and ≤5 acres</i>	<i>\$30,000</i>	<i>4.0:1</i>	<i>\$120,000/fourth and fifth acre (prorated)</i>

Notes:

- (1) Satisfying the requirements for quality stream protection as well as volume, peak, and water quality control will result in a 25% reduction in the total mitigation payment. If the Stormwater Administrator determines that physical conditions at a site preclude compliance with these requirements, then the requirements for onsite controls may be waived in which case the full fee must be paid per acre of built-upon area.*
- (2) Categories used to set the per acre fee are based on the built-upon area (BUA) of the site. The five (5) acre cap on the use of the mitigation fee is based on site area. To pay a fee for redevelopment on a portion of a larger site, the fee shall be allowable on the new built-upon area associated with a maximum disturbance of five (5) acres, cumulative since the date of adoption.*
- (3) Fees are charged per built-upon acre constructed since inception of this section of the ordinance.*

Consensus Building

Proposal 4.4

Task Force Member	Can you “live with” Proposal 4.4? (Yes / No)	If you cannot live with the entire proposal, what parts can you live with?	If you cannot live with the entire proposal, what parts can you <u>not</u> live with?	What is your compromise proposal if you cannot live with Proposal 4.4?
Steve Wilson, Real Estate & Building Industry Coalition (REBIC)	No	No comments provided.	Too complicated; water quality, volume and peak controls should be determined by the Stormwater Administrator only as part of a downstream analysis and quality stream assessment; mandatory controls for office, business, industrial, manufacturing and industrial will effectively “neuter” mitigation payment as a viable redevelopment option; if mitigation is not really a viable option, fewer parties will redevelop and neither the City nor the environment will benefit; developer option 10/19/15 attempts to address all of the above.	Marc’s proposal dated 10/19/15.
Nate Doolittle, National Association of Industrial & Office Properties (NAIOP)	No	No comments provided.	Does not promote redevelopment; too complicated; does not provide certainty; too far from the middle.	Change Proposal 4.4 to instead require 1 of the 5 on-site water quality controls if on-site volume control is required; change parking lot criteria to allow water quality credit if surface parking lots take up less than 50% of the site area and parking decks automatically qualify for credit; could live with a higher fee structure than Marc’s proposal.
Roger Coates, Charlotte Citizen	Provisional Yes (see comment in last column)	No comments provided.	No comments provided.	I won’t be signing on to any fee-in-lieu/mitigation proposal until I know how quality streams will be addressed. My suggestion continues to be the insertion of descriptive language that makes explicit how the <i>additional</i> protection of higher quality streams from flooding is to be achieved.
Marc Houle, Charlotte Chamber of Commerce	No	Good with 4.4 except as described in next column.	Water quality treatment for sites when detention is not required; water quality reduction based on % TSS removal; fee for mitigation on 4 to 5 acres staying at \$120,000.	Water quality treatment required for specified landuses if detention is required; options for water quality include sediment sump, parking lot sweeping, reduced BUA by 10%, reduce parking lot area by 50%, and treat portion of site with BMP; 50% fee reduction for detention; water quality fee

Consensus Building

Proposal 4.4

Task Force Member	Can you “live with” Proposal 4.4? (Yes / No)	If you cannot live with the entire proposal, what parts can you live with?	If you cannot live with the entire proposal, what parts can you <u>not</u> live with?	What is your compromise proposal if you cannot live with Proposal 4.4?
				reduction based on TSS removed; mitigation fee based on BUA as follows 0 to 1 acres = \$75,000, >1 to 2 acres = \$90,000, >2 to 3 acres = \$105,000, >3 to 5 acres = \$120,000; mitigation option not available for sites greater than 5 acres.
Ken Szymanski, Charlotte Apartment Association	No	See compromise proposal	Too much ambiguity and discretion; too complex; older, poorer areas of the City that are not ripe for redevelopment will not benefit from a mitigation fee because redevelopment will not occur in these areas for a very long time; see compromise proposal.	Marc’ proposal dated 10/19/15.
Nancy Carter, Charlotte Citizen	Yes (see comment in last column)	No comments provided.	No comments provided.	Still have some heartburn re the reduction of \$\$\$ for mitigation projects. Hope that will be discussed a bit further. Looking at the % on the chart helped me, but I do wish we could edge further to our current amount.
Eric Spengler, Sustain Charlotte	No	The conceptual framework, i.e., increased fee for no on-site mitigation and the implementation of new credits for partial compliance; the heightened requirements for high-quality streams.	1. The projected decrease in total amount of mitigation fee dollars collected. 2. Need more information about items 4(a)(1)-(5) before able to reach consensus. Minor amendments here likely would be sufficient for consensus. Specifically, though, I have concerns about (a) the relationship between the amount of credit vis-à-vis the amount of environmental benefits (i.e., the amount of credit should be based on amount of environmental benefit); (b) the implementation and enforcement of maintenance programs (e.g., for sediment pumps and parking lot sweeping); and (c) do <u>residential</u> sites get financial credit for 4(a)(1)-(5)?	1. Start with multiplier of 3.5 for 1 st acre. 2. More direct link between environmental benefits and amount of credits for items 4(a)(1)-(5). For instance, <u>greater</u> credit for reducing parking lot/vehicular area by 50%; smaller credit (if any) for agreeing to parking lot/vehicular area sweeping, absent safeguards to ensure regular maintenance and enforcement of violations.
Sam Perkins, Catawba Riverkeeper Foundation	No	It is possible that we can live with the premise of what has been developed but not with the current figures.	The fee calculation table reveals that revenue would drop. That’s an additional setback from the status quo. In general, regardless of ‘side,’ we needed to make the conceptual tweak to give credit for onsite mitigation and to inflate fees for a lack of any onsite mitigation. The	To keep this simple, increase the fee multiplier to raise more revenue. Council created this task force out of the need to figure out something that would allow the fee to exist but would be stronger than its

Consensus Building

Proposal 4.4

Task Force Member	Can you “live with” Proposal 4.4? (Yes / No)	If you cannot live with the entire proposal, what parts can you live with?	If you cannot live with the entire proposal, what parts can you <u>not</u> live with?	What is your compromise proposal if you cannot live with Proposal 4.4?
			table demonstrates that the factor system is still undervaluing in just getting back to previously generated revenue. The status quo generates more revenue.	current form (and thus more agreeable to our concerns). Increasing the multipliers is the simplest facet in which to do this. I would say that continuation of a fee that doubles revenue would be a major compromise from our side. While an acreage cap is technically another benefit, it is set so high that it barely captures any projects. One major concern has long been addressing the stream directly affected by a project. I would reiterate that a good policy – and compromise to accepting the 10% rule – would be to look at the 100% of the drainage area, and if there is little or no feasible possibility/need for regional detention, everyone else needs to get onboard with improving onsite conditions.
Dr. Craig Allan, Academic Representative, UNC Charlotte	Yes	I am fine with the proposal but some of the wording built upon area and site area is confusing and took a couple of readings to get straight.		
Rick Roti, Charlotte Public Tree Fund and Sierra Club	No	General concept of fee and credit that this approach is taking.	<ol style="list-style-type: none"> 1. The projected decrease in total amount of mitigation fee dollars collected. 2. The availability of mitigation fee for sites should be capped at 3 acres. 3. Need more information about items 4(a)(1)-(5) and also the impact of the target uses in terms of % of land area they comprise before able to reach consensus. Tools used for water quality should get credit based on benefits they provide. 	<ol style="list-style-type: none"> 1. To adequately and more aggressively treat red line areas the available fee dollars need to increase so more “regional” BMPs can be sited along the redline with shorter stream mile segments in between them. 2. Agree with Sustain Charlotte and Riverkeeper points. 3. As a note the language used to describe fee and credits and BUA needs significant re-writing to be clear. It is misleading and confusing.

Consensus Building

Proposal 4.4

Task Force Member	Can you “live with” Proposal 4.4? (Yes / No)	If you cannot live with the entire proposal, what parts can you live with?	If you cannot live with the entire proposal, what parts can you <u>not</u> live with?	What is your compromise proposal if you cannot live with Proposal 4.4?
Dr. Jy S. Wu, Academic Representative, UNC Charlotte	Yes	I support the overall concept of the 4.4 proposal. Several clarifications may be helpful: 1.Does the word “treatment” in the fee table include both quality and peak/volume requirements? 2.The 3-yr average total costs will be used to provide offset mitigation. Can the term “total costs’ be clearly defined or referenced? 3.20% volume converted into a sediment storage area for detention basin. Is this a wet or dry detention basin?		
Paisley Gordon, Commercial Board of Realtors	No	The 10/14/15 Proposal seeks to fix problems described on the right	1. Proposal 4.4 is too complicated. 2. Mandatory Controls on commercial property will essentially destroy the ability to use the program. 3. If mitigation is not an option, many properties will go undeveloped and will become blighted. 4. Peak Controls, Quality and Volume should not be determined by the Stormwater Administrator.	The 10/14/15 Proposal from Marc.



CHARLOTTE.

Proposal Comparison



Stormwater Mitigation Fee Task Force Meeting Minutes
*Thursday, November 12, 2015 - **APPROVED***
Charlotte-Mecklenburg Government Center – Conference Room 266
600 E. Fourth Street, Charlotte, NC 28202
5:00 PM

[Task Force Webpage](#)

ATTENDANCE: Voting Member

Dr. Craig Allan
Nancy Carter
Roger Coates
Paisley Gordon, Jr.
Marc Houle
Sam Perkins
Rick Roti
Eric Spengler
Steve Wilson

ABSENCE: Voting Member

Nate Doolittle
David Robinson
Ken Szymanski
Dr. Jy Wu

ATTENDANCE: Alternate

Steve Copulsky
Desiree' MacSorley
Rob Nanfelt

ATTENDANCE: CITY & COUNTY STAFF

Rusty Rozzelle, Facilitator
Daryl Hammock - Speaker
Tom Ferguson
Mike MacIntyre
Jordan Miller
Marc Recktenwald
Tim Richards
Karen Weatherly

HANDOUTS:

Agenda
Stormwater Mitigation Fee Task Force Consensus Document
Carrying Consensus Forward

I. Welcome, Review of Minutes and Previous Questions – Rusty Rozzelle

Marc Recktenwald announced that Mike MacIntyre has left the City to take a job with Mecklenburg County and Jordan Miller has accepted the job as PCSO Administrator. Mr. Rozzelle asked for any comments on the meeting minutes from the October 22nd meeting. No comments were received and the minutes were approved. The approved minutes will be posted on the website.

II. Consensus Building for Proposal 4.5 – Rusty Rozzelle

Mr. Rozzelle explained to the group that staff met with several members of the task force to answer additional questions on proposal 4.5 (see attached) and the meeting was productive. He then explained the changes to the consensus documents and asked for any additional questions on proposal 4.5 prior to calling for a vote for consensus. The following questions and comments were received:

- A. Has guidance been created for the issuance of fines for PCSO?
 - This will be developed and included in the Administrative Manual prior to Council’s approval of ordinance revision.
- B. Can the date of the original ordinance adoption (July 1, 2008) be added to item “E” on page 5 of the consensus document?
 - Yes, this will be revised.
- C. How will votes be counted for those who are absent?
 - Emailed responses for consensus were received from most members not present.
- D. What is the timeline for council approval if consensus is reached?
 - Mr. Hammock will discuss the path forward later in the meeting.
- E. Permanent term is bothersome.
 - As with all laws and ordinances, nothing is permanent and is dependent on the elected officials’ vision.

Mr. Rozzelle reviewed the meaning of consensus as described in the attached document entitled “Carrying Consensus Forward”. He also explained that if Task Force members come to consensus, then they are committing themselves to carrying this consensus forward through approval by the City Council by not actively encouraging or promoting a solution different from the one contained in the Consensus Document dated November 12, 2015 before the new mitigation fee policy contained in 18-161(c) is adopted by City Council, which could take several months. Mr. Rozzelle further explained that all members shown in Appendix A of the Carrying Consensus Forward document will receive an email

with instructions on how to subscribe to the Land Development Newsletter. This newsletter will include any future changes to the PCSO and the Administrative Manual. Mr. Rozzelle then asked members to contact staff directly with any future issues relating to the ordinance. A vote was called for and the result was unanimously for consensus. This consensus is based on the members present at the meeting as well as emails received by Mr. Rozzelle prior to the meeting. The two members who were not present/represented at the meeting both emailed votes of consensus.

III. Process Forward – Daryl Hammock

Mr. Hammock outlined the process forward and explained that the current environment committee received an update the week of November 9th, and the new environment committee appointments should be made sometime in February (estimated). It is anticipated that the consensus agreement will be presented to the new environment committee in early 2016. Following their approval, the agreement will be presented to City Council with an anticipated effective date of July 1, 2016 if approved. Mr. Hammock will keep the members of the task force apprised of the progress throughout the council approval process.

IV. Closing and Adjournment – Rusty Rozzelle

Mr. Rozzelle thanked all of the members of the task force for their commitment and hard work throughout this process. There being no further business, Mr. Rozzelle adjourned the meeting.

Stormwater Mitigation Fee Task Force

November 12, 2015
5:00 p.m. Room 266, CMGC

Meeting Agenda

5 minutes – Welcome, review of minutes
Rusty Rozzelle

1 hour, 50 minutes – Consensus building for Proposal 4.5
Rusty Rozzelle

5 minutes – Process forward/adjournment
Rusty Rozzelle



Stormwater Mitigation Fee Task Force Consensus Document November 12, 2015

On October 27, 2014, the Charlotte City Council requested that the City Manager convene a Task Force, made up of environmental and development industry interests, to develop recommendations related to mitigation fee options in temporary districts of Charlotte's Post-Construction Stormwater Ordinance (Charlotte City Code, Chapter 18, Article IV, Division 4, Section 18-161(c)). The City Council also directed Charlotte Storm Water Services' staff to facilitate Task Force meetings, which would begin in January 2015 and conclude within six (6) to nine (9) months, but no later than January 2016. Charlotte City Council assigned the following charge to the Task Force:

- To develop a recommendation for a permanent solution to allow a mitigation fee option for the temporary district and if so, under what circumstances such as costs, site constraints and other factors.
- To develop that recommendation in the context of the 2008 Council decision.
- To determine other mitigation measures, such as catch basin inserts that would further the goal of mitigation.

A Task Force was convened effective January 29, 2015 (see Appendix A). During the Task Force meeting held on November 12, 2015, consensus toward fulfilling the above described charge was reached on language for inclusion in Charlotte's Post-Construction Stormwater Ordinance as indicated below. The Task Force also reached consensus on language to be added to the Administrative Manual for the Ordinance as indicated below, which contains the details regarding the specific mitigation requirements. Failure to comply with the provisions of the Administrative Manual is considered a violation of Charlotte's Post-Construction Stormwater Ordinance.

Consensus Language for Inclusion in Charlotte's Post-Construction Stormwater Ordinance:

(c) Redevelopment not within transit station areas or distressed business districts. Projects involving redevelopment of existing built-upon-area and the cumulative addition of less than 20,000 square feet of new built-upon-area are allowed by right to forego meeting the requirements of this article, except for required stream buffers and phosphorous requirements, provided the city is paid a mitigation fee according to rates set forth in the administrative manual for the post-project built-upon-area and, if required, onsite controls are installed for stormwater quality, and detention (i.e. volume and peak control) as well as quality stream protection in accordance with the provisions of the administrative manual.

Consensus Language for Inclusion in the Administrative Manual:

(C) Redevelopment not within transit station areas or distressed business districts. Projects involving redevelopment of existing built-upon-area and the cumulative addition of less than 20,000 square feet of new built-upon-area are allowed by right to forego meeting the requirements of this article, except for required stream buffers and phosphorous requirements,

provided the city is paid a mitigation fee according to rates set forth in the administrative manual for the post-project built-upon-area and, if required, onsite controls are installed for stormwater quality, and detention (i.e. volume and peak control) as well as quality stream protection in accordance with the provisions described below.

- (1) Onsite Controls: All onsite controls must be installed, inspected and maintained in accordance with the provisions of Charlotte's Post-Construction Stormwater Ordinance, Charlotte-Mecklenburg BMP Design Manual and/or this Administrative Manual. The failure to do so could result in ordinance violations that are subject to penalties as described in section 18 of this Administrative Manual.
 - A. When a downstream analysis performed in accordance with the procedures described in "(2)" below, including the application of the 10% rule, indicates a quality stream segment, the following onsite controls must be implemented:
 1. Provide 1-year, 24-hour volume control and 10-year, 6-hour peak control for entire project; and
 2. Fulfill two (2) of the following stormwater quality controls:
 - a. Sediment forebay installation - Provide 20% of the volume of a required detention basin for sediment storage. An altered sediment storage area will be detailed in the Charlotte-Mecklenburg BMP Design Manual. Sediment removal from the basin (pumping out and disposal of pollutants) will be required on a routine basis as specified in the Charlotte-Mecklenburg BMP Design Manual.
 - b. Parking lot/vehicular area sweeping - Perform sweeping/vacuuming of areas that are exposed to rainfall and are subject to vehicular traffic at least twice monthly and report annually as specified in the Charlotte-Mecklenburg BMP Design Manual.
 - c. Built-upon-area reduction - Reduce built-upon-area by 10% at post-development compared to pre-development.
 - d. Parking lot/vehicular area reduction - Reduce parking lot/vehicular area by 50% at post-development compared to pre-development, including installing parking decks in which case the top floor of the parking deck (if not covered) will be included in the area calculation as parking area.
 - e. Partial stormwater quality treatment - Treat a portion of the site using onsite controls from the Charlotte-Mecklenburg BMP Design Manual.
 - B. When a downstream analysis performed in accordance with established procedures described in Section 3 of the Charlotte-Mecklenburg BMP Design Manual, including the application of the 10% rule, indicates detention (i.e. volume and peak control) is required, the following onsite controls must be implemented:
 1. Same as "A1" above; and
 2. Same as "A2" above, except only one (1) of the stormwater quality controls is required.

- C. When there is an increase in built-upon-area at post-development compared to pre-development, the following controls are required for the redeveloped built-upon area and any increase.
 - 1. Same as “A1” above; and
 - 2. Same as “B2” above with only one (1) stormwater quality control required, except the option for built-upon-area reduction in A2c above would not be applicable for use.

(2) Quality Stream Analysis: The following procedures are for the determination of stream quality (submittal process based on section 7.0 of this Administrative Manual).

A. Desktop Assessment: To determine whether a field stream assessment is required:

- 1. Delineate the “zone of influence” for the site, which is the downstream point where the drainage area controlled onsite comprises 10% or less of the total drainage area.
- 2. Go to Virtual Charlotte (<http://vc.charmeck.org>) and turn on the layers within the Stormwater Group as well as the most recent aerial photograph.
- 3. Locate on the aerial where stormwater from the proposed redevelopment enters the first open channel. If this location is downstream of the zone of influence defined in “1” above, then a quality stream does not exist and the assessment is concluded. The aerial must be submitted to the Stormwater Administrator for verification.
- 4. If stormwater from the proposed redevelopment enters the first open channel upstream of the zone of influence, measure 500 feet down from this point to identify the terminus point of the evaluation.
- 5. Measure a twenty (20) foot buffer on either side of the estimated centerline of the channel. The total buffer width (both sides of the channel combined) should average forty (40) feet (note: the average is taken to account for small segments that don’t have a wooded buffer).
- 6. Answer the following questions. If you answered “No” to either of these questions, then a quality stream does not exist and the assessment is concluded. A copy of the aerial with site assessment area and determination of questions “a” and “b” below indicated must be submitted to the Stormwater Administrator for verification. If you answered “Yes” to both of these questions, a field visit is required as specified in “B” below.
 - a. Is there a continuous stretch of open channel for 500 feet?
 - Yes = Move to question “b” below
 - No = No field stream assessment required
 - b. Along this 500 foot open channel is there on average a 40-foot wooded buffer?
 - Yes = Field stream assessment required
 - No = No field stream assessment required

B. Field Stream Assessment: If a field stream assessment is required, the applicant can provide either “1” or “2” below to the Stormwater Administrator to

demonstrate the project does not empty into a quality stream. The Stormwater Administrator may field verify the submittals. In addition, a copy of the aerial with site assessment area and determination of questions “a” and “b” above indicated along with photos or the North Carolina Stream Assessment Methodology (NCSAM) evaluation must be submitted to the Stormwater Administrator for verification that the stream is not a quality stream for purposes of the Ordinance. Unless verified by a Quality Stream Assessment, all streams are considered quality streams and must comply with the quality stream requirements specified in “(1)” above.

1. Provide photo documentation of the existing degraded channel conditions or proof that the open channel is not a jurisdictional stream. Photos should be clear and provide evidence that the channel would not be classified as a stream or would be ranked as a low quality stream according to NCSAM. A map locating where the photos were taken must accompany the submittal. The Stormwater Administrator will review the photos and reserves the right to request a NCSAM evaluation be performed before confirming the stream is not a quality stream segment.
2. Complete a NCSAM evaluation to document the quality of the open channel receiving stormwater from the proposed redevelopment. This form must be completed by an individual trained and certified to complete the NCSAM evaluations. If the NCSAM rating is medium or high, then the stream is consider a quality stream for the purposes of the Ordinance.

(3) Mitigation Fee

- A. The base rate used to determine the applicable mitigation fee is set at the City’s per acre cost to provide offsite mitigation as established by the City Engineer (rounded up to the nearest \$1,000). The applicable mitigation fee for each redevelopment project is determined by multiplying the base rate by the mitigation ratio or ratios listed in the Calculation Table below. These ratios increase as the built-upon-area created by the redevelopment increases in acreage. For example, at the current base fee rate a project that creates 1.5 acres of built-upon-area would require a fee of \$120,000, which includes \$75,000 for the first acre and \$45,000 for the additional ½ acre that falls within the >1 acre and ≤2 acre category. All the fees are totaled to calculate the total mitigation fee required.
- B. The base rate and mitigation fees are adjusted as necessary in March of every year based on the 3-year average total costs for the City to provide offsite mitigation. The types of projects to be included in this 3-year average total cost include all projects with a stormwater quality benefit, including stream restorations, BMP retrofits, new BMP installations, pond retrofits, etc. All costs will be included in the development of this average cost, including costs for property acquisition, design, construction, and project administration. Current fees will be maintained on the stormwater website. The Calculation Table below provides the current base rate, mitigation ratios and corresponding mitigation fees.

Calculation Table

<i>BUA Area Categories</i>	<i>Base Rate</i>	<i>Mitigation Ratio</i>	<i>Mitigation Fee</i>
<i>1st acre</i>	<i>\$30,000</i>	<i>2.5:1</i>	<i>\$75,000/first acre or portion thereof</i>
<i>>1 acre and ≤2 acres</i>	<i>\$30,000</i>	<i>3.0:1</i>	<i>\$90,000/second acre or portion thereof</i>
<i>>2 acre and ≤3 acres</i>	<i>\$30,000</i>	<i>3.5:1</i>	<i>\$105,000/third acre or portion thereof</i>
<i>>3 acres</i>	<i>\$30,000</i>	<i>4.0:1</i>	<i>\$120,000/acre or portion thereof</i>

- C. Satisfying all the requirements for onsite controls as specified in this section, including quality stream protection, detention and stormwater quality control, will result in a 25% reduction in the applicable total mitigation fee.
- D. If the Stormwater Administrator determines that physical conditions at a site preclude compliance with the requirements for onsite controls, then quality stream protection, detention and stormwater quality control may be waived in which case there is no reduction in the applicable total mitigation fee.
- E. For redevelopment of a portion of a larger site, the fee is calculated based on the new built-upon area cumulative since the date of adoption of Charlotte’s Post-Construction Stormwater Ordinance (July 1, 2008).
- F. Fees are charged per built-upon acre constructed since inception of this Section 18-161(c) of Charlotte’s Post-Construction Stormwater Ordinance.

Appendix A
Charlotte Stormwater Mitigation Fee Task Force Members
Updated June 3, 2015

Member	Representing
Rusty Rozzelle	Facilitator
Voting Members	
Dr. Craig Allan	Academic Representative, University of North Carolina at Charlotte
Nancy Carter	Charlotte Citizen
Roger Coates	Charlotte Citizen
Marc Houle	Charlotte Chamber of Commerce
Nate Doolittle	National Association of Industrial and Office Properties (NAIOP)
Paisley Gordon, Jr.	Commercial Board of Realtors
Sam Perkins	Catawba Riverkeeper Foundation
Steve Copulsky	Sierra Club (Central Piedmont Group)
Rick Roti	Charlotte Public Tree Fund
Eric Spengler	Sustain Charlotte
Ken Szymanski	Charlotte Apartment Association
Steve Wilson	Real Estate & Building Industry Coalition (REBIC)
Dr. Jy Wu	Academic Representative, University of North Carolina at Charlotte
Alternates	
Shannon Binns	Sustain Charlotte
Carrie Cook	Charlotte Chamber of Commerce
Emilee Syrewicze	Catawba Riverkeeper Foundation
Patrick George	Charlotte Public Tree Fund
Debra Glennon	Charlotte Public Tree Fund
Bryan Holladay	Charlotte Apartment Association
Rob Nanfelt	Commercial Board of Realtors
Joe Padilla	Real Estate & Building Industry Coalition (REBIC)
Kevin Vogel	National Association of Industrial and Office Properties (NAIOP)
Staff Resources	
Daryl Hammock	Charlotte-Mecklenburg Storm Water Services
Marc Recktenwald	Charlotte-Mecklenburg Storm Water Services
Mike MacIntyre	Charlotte-Mecklenburg Storm Water Services
Jordan Miller	Charlotte-Mecklenburg Storm Water Services



Carrying Consensus Forward

11/12/15

Consensus:

1. Consensus is reached when all members present can “live with” or “not object to” the proposal being made.
2. Consensus does not mean everyone gets everything they want.
3. Consensus is the methodology that allows collaborative problem solving to work.
4. Consensus is accepting that the decision is the best that could be made given the circumstances and the many participating interests.
5. Consensus requires the sharing of information, which leads to mutual education, which in turn, provides the basis for crafting workable and acceptable recommendations.
6. Consensus promotes joint thinking of a diverse group and leads to creative solutions. Also, because parties participate in the deliberation process, they understand the reasoning behind recommendations and are willing to support them.

Carrying Consensus Forward:

1. All Task Force members commit to carrying out their agreement by supporting the consensus proposal moving forward through approval by the City Council.
2. All Task Force members agree that they will not actively encourage or promote a solution different from the one contained in the Consensus Document dated November 12, 2015.
3. City staff agrees that if any changes are made during the final development of the subject ordinance and/or Administrative Manual (e.g. language modification requested by reviewers), the Task Force will receive an email which includes those changes before the final vote of City Council.
4. Each Task Force member (according to Appendix A) will receive an email with instructions to subscribe to the Land Development Newsletter. Once effective, all members who subscribe will be notified of all changes to land development ordinances, including the Post-Construction Stormwater Ordinance and/or Administrative Manual. It will be the responsibility of the member/organization to update addresses as needed if representatives change.

Appendix A
Stormwater Mitigation Fee Task Force Members Contact Information

Dr. Craig Allan	Academic Representative, University of North Carolina at Charlotte	cjallan@uncc.edu
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Marc Houle	Charlotte Chamber of Commerce	march@y-wh.com
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Paisley Gordon, Jr.	Commercial Board of Realtors	paisley@cpgrenc.com
Sam Perkins	Catawba Riverkeeper Foundation	sam@catawbariverkeeper.org
Emilee Syrewicze	Catawba Riverkeeper Foundation	emilee@catawbariverkeeper.org
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