CHARLOTTE

Charlotte City Council

Restructuring Government Committee

Meeting Summary for December 13, 2010

COMMITTEE AGENDA TOPICS

I. **Subject:** **Executive Compensation Policy**
Action: None

II. **Subject:** **Water/Sewer Rate Study**
Action: None

III. **Subject:** **2011 Meeting Schedule**
Action: Adopted 2011 meeting schedule

COMMITTEE INFORMATION

Present: Warren Cooksey, Patsy Kinsey, Patrick Cannon, Warren Turner
Time: 2:00 p.m. to 3:30 p.m.

ATTACHMENTS

1. Agenda Package
2. Utilities Handouts

DISCUSSION HIGHLIGHTS

Chairman Cooksey called the meeting to order and asked everyone in the room to introduce themselves. He stated that the first item on the agenda is a continuation item. He then turned it over to Assistant City Manager Eric Campbell.

I. Executive Compensation Policy

City Manager Curt Walton told the Committee that City Attorney Mac McCarley was in a hearing and could not get out to attend this meeting. Mr. Campbell said this is a continuation of the discussion of an executive compensation policy and he then turned it over to the new Human Resources Director, Cheryl Brown.

Ms. Brown brought the Committee's attention to the items included in their packets (copies attached). She described the reason the City uses the philosophy to target market competitiveness at the median of actual salaries paid. In Mr. Walton and Mr. McCarley's case, it would be a national comparison. She stated that one of the attachments included is a comparison of the salaries in the 10 largest Council-Manager cities with some additional information like population, number of employees, and their total budget. She said the sheet also includes Raleigh, N.C. and Greensboro, N.C.

Chairman Cooksey reminded the Committee that the motivation here is the sole two City employees, for which there is no philosophy or guidance on pay, are the Manager and the Attorney. Given that every year there is an evaluation and a salary determination, Chairman Cooksey thought the Council would benefit to have a guided philosophy as a touch stone, not a promise or a commitment. It's just to help provide guidance during the evaluation process. He stated that the document titled "Proposed Policy for the Charlotte City Council Regarding Compensation for the City Manager" is what he came up with. He said that he proposed 6 cities versus using 10 cities for the comparison because there is a much larger disparity and some of the cities they are comparing Charlotte too are much larger. He then asked the Committee if they had any questions or a desire to move forward with the document.

Kinsey: Regarding the 5% of the market median you propose, how does that relate to what Human Resources uses now?

Brown: We use the same for our employees now.

Cooksey: I took that number from the 1993 Human Resources Philosophy that Council adopted.

Cannon: I think anything we can utilize as a guide or tool to reference is fine, but what I don't support is having a future Council or Mayor pigeon hold its Manager or Attorney in a certain area where they can't move beyond what the market might call for. A future Mayor and Council should also be looking at the performance of the individual and if there is no level of flexibility to gage how well or poor the person is performing, then I don't know that we are giving them the full look they should get. I don't want it streamlined so much that we don't allow the flexibility

to think outside of the box.

Cooksey: Because we hire this position so rarely, we aren't quite as in tune regularly with the market as we would be with a Key Business Executive (KBE). The actual wording in the policy is borrowed from the 1993 policy. How does the "good employees" within 5% higher market range, work itself through in day-to-day workings of the City's salary policy?

Brown: The KBEs have the latitude to go over that 5% for the top performers. They do have the ability to move a top performer to 105% of market. When you reach that level the KBE may choose to compensate through lump sums.

Kinsey: I don't think we need a policy. It will boil down to what we decide at the table. I don't think we should tie our hands. People are going to look at this 5% and won't read the fine print if we go over 5%. You are mainly talking about hiring within 5%, right?

Brown: Well, hiring and performance. You may hire someone in at a lower comparison to market and move them toward the market median. So, it is a recruitment and retention tool.

Kinsey: I don't want Mr. Walton to look elsewhere. We will have to take the heat when it comes to his pay. I assume to not have a policy, but if the remainder of the Committee recommends it to Council, and it is fairly open in general, I might be able to buy in to it.

Cannon: It's not easy because there are 11 to 12 people trying to make a decision for 2 people's salaries. My hope is that we continue to operate in the means we currently have, still requesting what has already been produced and continue to do our best as a body to award the most fair compensation package. I'd like to hear from staff if there is something else that we can do that might tighten the belt that we aren't thinking about, as we try to come up with a fair practice.

Walton: About 5 years ago the Council had a similar debate and it came out with a new process that has since been changed again. Any place in the organization, where you only have one position, it's harder to get the salary information than when you have multiples. I support whatever you feel like you need and I'm glad we are away from where we were 5 years ago. It really comes down to an annual process that you all have to work through.

Kinsey: Do we give you enough information to let you know what we want from you? Maybe we haven't clearly defined what we expect over the next year.

Walton: There is nothing specific to the Manager. Your Focus Area Plans and Policies are what I report to you on. I'm okay with the macro policy perspective. If there are a few things that are most important to you, I feel like those will evolve during the Focus Area Plan process. The budget will always be one of those things. The thing that would help me the most is for the surveys to be done. This year we got 6 surveys completed and it would help me a lot if we can get that number up because that is a good opportunity for people to give me feedback that I don't get otherwise.

Cooksey: When you talk about the concern of a narrow trap, I think about the County

Commissioners struggling with their bonus performance plan for the County Manager. When they were evaluating him, when the recession hit and layoffs were happening, he hit every one of his targets and by the way they had it structured, they had to give him the bonus and it looked awful. I like the goal structure and think there is something to be said for Council to provide some kind of direction so it's in conjunction with the evaluation.

(Council member Turner entered the meeting)

Cannon: I think we should get back from Ms. Brown something helpful in the way to help us get to where we need to be when we start to evaluate. To narrowly tailor some of the cities and going back to what we have done in the past.

Cooksey: Based on feedback today, perhaps the direction ought to be to find some kind of guiding document to adopt more in the vein of the kind of information that should be provided to Council prior to a Manager evaluation. If I'm not getting a comfort level on adapting our median language then perhaps it's just to codify the kinds of information we are looking for each year. If we select a set of data ahead of time, in addition to the survey with emphasis on getting it done by everyone, then we can probably have the next stage of this behind us for the evaluation. Thank you all for the information. We'll move on to the next item.

II. <u>Water and Sewer Rate Study</u>

Chairman Cooksey thanked all the Stakeholders present for their work on this item. He then turned it over to Mr. Campbell. He said that today they would continue discussions on the Water and Sewer Rate Study. He said they have some additional information and an alternative to talk about with the Committee. Mr. Barry Gullet apologized for the magnitude of the handouts (copies <u>attached</u>), but they wanted to be sure they had heard and had a chance to see the feedback from the Stakeholder Advisory Group and from the public comment meetings. He said the summary document in the packet fairly represents the outcome of the Stakeholder Advisory Group, but there were a lot of diverse interests and everyone wanted to make sure their comments were heard. He said that John Mastracchio from Red Oak Consulting will review the presentation today and he pointed out that there is a slide that is labeled as a "Proposed Rate Alternative" and it is really a preliminary proposed rate alternative.

Mr. Mastracchio began reviewing the "Water and Sewer Rate Study" presentation (copy <u>attached</u>). He said this presentation is an update from the last Committee meeting. They have completed their public input process. He discussed the existing water and sewer rates and identified the most important criteria to a rate structure. Ms. Meg McElwain from Magnolia Marketing discussed the public outreach efforts. The purpose of the public outreach was to educate them on the process, talk about the existing structure and get feedback on the ways to improve the rate structure. She also described the different methods of outreach.

Cannon: Which papers did you utilize for newspaper advertising?

McElwain: We used La Noticia, the Charlotte Weekly and the Charlotte Post. We did not utilize the Charlotte Observer because of the cost. We also had Public Service Announcements

that ran on the Government Channel.

Cannon: Did we tie in the Public Service Announcements with other local stations?

McElwain: We did not air there, but we did some media relations. There was some free news coverage on the meetings. We had a press conference before each round of meetings where the media was invited to come out to the Utility Department to get some footage and get a stand up on camera interview to help us promote the public meetings.

Turner: What was your budget for the advertising?

Simpson: About $10,000.

Turner: What was the total attendance for the meetings?

McElwain: There were 40 people total.

Turner: That is a bad investment.

[“Preliminary Rate Structure Options” slide]

Mr. Mastracchio continued and said the 5 ideas listed on the slide are just options they wanted to get feedback on. The first would be to add a new fixed charge, called an “availability” charge and it would vary by meter size. If you add the availability charge it would increase it to 16% of the revenue would be fixed versus 5% now. The second option is to lower the sewer cap or bill based on average winter consumption. Instead of having the sewer cap at 24 ccf, it would be lowered. The third option is to lower the Tier 1 rate to maintain affordability. The fourth item was to adjust the tier rates for irrigation only customers. This option focuses on irrigation only customers that would put into place a smart control to use water more efficiently. Instead of being billed at the Tier 3 & 4 rates, that customer would be billed at the Tier 3 as an incentive. The fifth option would be to adjust the water and sewer capacity fees.

Cannon: For the irrigation only customers, are you talking about residential or commercial?

Mastracchio: It’s a combination.

Cannon: Do you have an idea of how many are currently set up throughout the County?

Gullet: It’s a not a huge number relative to the size of our system, but it’s in the range of 6,000-7,000 accounts that have separate irrigation meters. We have a lot of customers that have in-ground irrigation systems, but they don’t have a separate meter for those systems.

Kinsey: Going forward, will they have to have a separate meter?

Gullet: Yes. There is no retrofit requirement in the state statutes, but the state does require that lots platted after July 1, 2009 require a separate meter. What we are discussing is the benefit to

the customer, utility, and the environment for having the separate meter.

Cooksey: What is the percentage of revenue from capacity fees?

Gullet: The capacity fees bring in about $6.8 million out of our total budget of $265 million. That's roughly 5% of revenue at this point.

["Summary of Written Public Comments" slide]

Mr. Mastracchio said this slide shows a summary of the written comments they received. He said in their packets there is a document of the actual comments that they can refer to as well. They received 100% support for lowering the sewer cap or using the winter average consumption. Most of the other options received mixed reviews.

Kinsey: Describe the winter average option.

Mastracchio: Utilities would calculate what the winter water usage is for 3 months. Every customer would have a winter average and would be billed sewer charges based on the winter average during the summer period. It's a proxy for water that makes it to the sewer system and water that is not used for irrigation.

Cannon: Can you talk about the four people in favor of the increased fixed charge and six people against it?

Mastracchio: The ones for the increase thought that having a mid-year rate increase because water usage was down was not a good idea. By having a fixed charge, you minimize the chance you are short on revenue and have to have a mid-year rate increase.

Gullet: The other part is to remember this is looking at this year's revenue. If you increase the fixed charge, that allows the volumetric charges to be lowered. Some people saw the benefits of that and supported it. The revenue stability was the major discussion.

Cannon: There was a tie for lowering the Tier 1 rate. Give us some background on that.

Mastracchio: Some customers thought that there shouldn't be a rate structure change that increased the bill to those that don't use a lot of water on the low income side of things. Others thought that there shouldn't be a subsidy for anyone in the system. Everyone should pay their fair share of the cost.

Cooksey: I'm not confident that low usage equals low income. If you are living in a million dollar condo, I bet you are using maybe 2 -3 ccf a month. I don't know that we can always say Tier 1 means low income. If you increase the fixed charge and lower the Tier 1 then the net appearance to a Tier 1 customer is going to be no real change. To us, there will be tremendous change because our revenue from fixed charges would be a higher percentage. If we have socioeconomic breakdown of Tier 1 users, that would be useful to see, but I don't know that we do.

Gullet: Mr. Mastracchio will present some information about affordability analysis, which might not be exactly what you are asking for, but it gets at that. The other thing to keep in mind with Tier 1 is I agree that there is a lot of small water usage in upscale housing, but having that first Tier as an option for people who are struggling to make ends meet, that if they really want to conserve water, they have that option there.

Cooksey: Yes, we do want to have a balance.

Turner: The whole system is based on paying what you use. The options you are proposing are punishing people. I'm not interested in paying for something I don't use. Your sewer rate is based on your water use, right?

Gullet: Yes.

Turner: If you come up with a fixed sewer rate and someone uses less water, then their rate will be the same. I understand you are saying they may use less water and would see a savings in the summer time rather than paying the flat bill in the winter months. How did you come up with that?

Mastracchio: Using the average winter consumption option tries to prevent a rate structure that charges people for water that doesn't make it to the sewer system. By using a winter time average as a basis, then if the usage in the summer time for a customer is higher than the winter time average, then that customer would be billed their winter time average usage for that billing period. If it's lower, they would be billed the lower number. It results in a more equitable sewer rate structure. It's an attempt to more directly accomplish the term "pay for what you use."

Turner: I'm trying to figure out how to explain that to one of my constituents. The concern I have is when there is an error in your water bill, I'm hearing that we don't correct the sewer usage.

Gullet: That's incorrect. When we find an error in the bill, we fix both parts.

Turner: Since we are PayGo, how does the winter average benefit you to operate your department efficiently? What I'm hearing here, is to look at an efficient way to make people really pay for what they use. It's going to cause us to lose revenue.

Gullet: No, and that's why we are trying to get the structure set today as opposed to the same time we are doing budget stuff. The goal of this is to generate the same amount of revenue. This is a revenue neutral rate change, if we make one. Right now, we are estimating that everyone is capped at 24 ccf, so water consumption that happens above that has no sewer generating. If that cap is lowered and effectively becomes 10 or 12 ccf then we will sell less service, so the price per unit will have to go up to make it revenue neutral. It's a zero sum plan. The bottom line we are trying to get to is to assess the cost to the people who are using the service and not create the situations where one group of customers is subsidizing another.

Turner: And we would be doing that based on average?

Gullet: The proposal is that the winter time average would be calculated for each individual customer and applied to each individual customer's bill. It's not a system-wide average.

Cannon: Can you talk about the option to raise capacity fees and the fact that there were four people for it and four people against it?

Mastracchio: Some of them felt the capacity fees were too low and were not recovering the cost of growth and others felt that now was not the time to look at raising capacity fees during this economic climate. They also thought it would hurt economic development.

Cannon: What's your perspective on the comment that the capacity fees are not recovering the growth?

Mastracchio: I've reviewed the methodology of calculating the capacity fees and in my opinion, it does not fully recover the costs. There are other industry accepted methods that you could use, but I haven't done those calculations.

Cannon: Can you bring those other methodologies back to us next time?

Mastracchio: Yes, I can do that.

Gullet: I would offer one request relative to the capacity fees. I understand both sides of that issue and I think it is something that does deserve quite a bit of discussion. What I would like to not see happen, if possible, is that we not get too caught up in that fee. Remember, it only produces 5% of the revenue. I would hope this subject doesn't hijack the rest of the rate structure, which to me, is much more urgent than the capacity fee issue, even if we decide to take up the capacity fee issue next year or later down the road.

["Stakeholder Advisory Group Feedback" slides]

Mr. Mastracchio read through the slides and discussed the majority items supported by the Stakeholder Advisory Group. The majority support adding an availability fee, billing sewer based on the average winter consumption, lowering the Tier 1 rate, modifying the tiers for irrigation meter accounts if smart irrigation controllers are used, and adjusting the capacity fees. They also all agreed that it would be best to make the changes all at once instead of phasing them in, to help avoid confusion. There were a few members of the group that were strongly against increasing the capacity fees. Mr. Mastracchio also read through the minority opinions.

Cannon: So, there was no unanimous support on anything? Your slide says "majority".

Mastracchio: There was unanimous support for everything except increasing capacity fees.

Cannon: How much does a smart irrigation controller cost?

Mastracchio: It depends on your irrigation system. A small residential one ranges from $200 - $500. Larger ones for commercial establishments can range from $1,000 or more.

Cannon: You are proposing that we ask them to go with installing a smart controller, right?

Mastracchio: They don't have to, but it provides an incentive to them.

Gullet: The smart irrigation controllers can save 15-30% in water consumption. There is a payback.

["Preliminary Proposed Rate Structure" slides]

Mr. Mastracchio said the preliminary proposed rate structure adds a fixed availability charge that varies by meter size, bills sewer based on average winter consumption, lowers the Tier 1 rate and lowers the Tier 4 rate to more closely align with the cost of service. Under this structure, approximately 20% of the debt service cost would be recovered from the fixed charge and it would lower the number of units that is being billed for sewer. Tiers 2 and 3 would need to be increased to be revenue neutral and this option also adjusts the tier rates for irrigation-only meter customers using smart irrigation controls.

["Alternative Rate Structure – Water and Sewer Rates" slides]

Mr. Mastracchio reviewed the slides illustrating a comparison between the existing rates and the illustrated rates for the water rates and then the sewer rates. He noted that the alternative rates shown were for illustration purposes only and are revenue neutral in comparison to the existing 2011 rates. He also pointed out that if a customer used no water in a month that the customer would still get a bill for $10.32 because that is the total of the fixed charges added. Other utilities in North Carolina have fixed charges. Some are higher than $10.32 and some are lower. The trend in the industry is they are seeing higher fixed charges. Council member Cannon asked staff to get them the chart that shows other municipalities showing the different fixed charges.

["Water and Sewer Bill Impact" slide]

Mr. Mastracchio discussed the table on the slide showing the impact of the new rate structure on residential and commercial customers.

Kinsey: You are lowering the Tier 4 rate and that doesn't seem fair to me because they use the most water.

Cooksey: Tier 4 starts at 16 ccf. I'm pretty sure the majority of the Tier 4 users aren't using 24 ccf. We are charging them for sewer use that they aren't imposing on us.

Kinsey: Are they paying for all the water they use?

Cooksey: Yes, because the rate structure separates water and sewer so that the water component covers the cost of providing water and the sewer component covers the cost of sewer. Right

now, the Tier 4 user is getting "washed" on the sewer side.

Mr. Mastracchio ended the presentation and said he would be back to the Committee at a later date. Chairman Cooksey said they would put it on the January agenda and requested to move on to the next agenda item.

III. 2011 Meeting Calendar

Chairman Cooksey asked the Committee if they had any issues with the proposed calendar. None were mentioned. Council member Cannon made a motion and was seconded by Council member Kinsey to adopt the 2011 calendar as presented. *(Motion passed unanimously)*

Chairman Cooksey adjourned the meeting at 3:30 p.m.

Restructuring Government Committee
Monday, December 13 2010
2:00 – 3:30 p.m.
Charlotte-Mecklenburg Government Center
Room 280

Committee Members: Warren Cooksey, Chair
Patrick Cannon, Vice Chair
Patsy Kinsey
James Mitchell
Warren Turner

Staff Resource: Eric D. Campbell

AGENDA

I. Executive Compensation Policy
Staff Resource: Cheryl Brown
The Committee will continue to review and consider an Executive Compensation Policy for the City Manager and City Attorney. No decisions or recommendations are requested at this meeting.
Attachment: 1. Proposed Policy
2. City Manager Profile
3. Pay Philosophy
4. Base Pay & Total Compensation Comparison

II. Water and Sewer Rate Study
Staff Resource: Barry Gullet
The Committee will receive an update on the Water and Sewer Rate Study process. No decisions or recommendation are requested at this meeting.
Attachment: 5. Water/Sewer Rate Study.ppt
6. Stakeholder Assessment

III. 2011 Meeting Schedule
Staff Resource: Eric Campbell
Action: Approve proposed meeting schedule.
Attachment: 7. 2011 Propose Meeting Schedule

Next Meeting: TBD

Distribution:	Mayor & City Council	Curt Walton, City Manager	Leadership Team
	Mac McCarley	Cheryl Brown	Barry Gullet
	Kim Eagle	Mickey Hicks	

Proposed Policy for the Charlotte City Council Regarding Compensation for the City Manager

I. Job summary

The City Manager is responsible for the day-to-day management of Charlotte's government in accordance with policies adopted by the City Council.

The Manager must have the skills and expertise to manage well-developed large projects, urban planning issues, development and redevelopment, an airport, public transit, public safety, and utilities. In particular, the Manager must demonstrate excellence in leadership, communication, innovation, and organization.

The Manager must be able to retain, attract, and develop a high quality City staff in order to provide citizens with the best possible customer service. This requires the ability to promote consistency, fairness, and confidence within the entire organization.

II. Compensation philosophy

In accordance with the City Council's compensation philosophy, compensation for the City Manager should be competitive within 5% of the market median. The median of actual salaries paid for comparative work should establish the baseline for the Manager's salary. Good performance should be rewarded within 5% of the market median; higher performance should be recognized with higher compensation.

To evaluate the market median for the City Manager, the Human Resources Director shall annually collect for City Council's consideration the base salary and total compensation for the City Managers of the following sets of cities with Council-Manager forms of government:

- the six cities with populations closest to the City of Charlotte's
- the six cities with operating budgets closest to the City of Charlotte's
- the two next largest cities in North and South Carolina

III. General evaluation

The City Council shall annually evaluate the performance of the City Manager using the categories of the balanced scorecard.

IV. Performance goals

As part of its evaluation of the City Manager, the City Council may determine specific performance goals for the Manager for evaluation the following year. Any such goals shall be part of the motion establishing the Manager's compensation. The motion shall also specify that the performance goals are part of the Council's expectations for the Manager's regular performance or that they will be evaluated for the award of a bonus above base salary.

CITY OF CHARLOTTE
CITY MANAGER PROFILE

Education and Professional Development

- Minimum of a Bachelor's degree in Public Administration, Business Administration or a related field from an accredited college or university.
- Master's degree in Public Administration or Business Administration strongly preferred.
- Evidence of continued professional development as evidenced by completion of seminars, training programs or course work to stay abreast of modern management approaches and techniques. An ICMA Credentialed Manager would be a plus.

Experience

- Substantial (7 to 10 years) of progressively responsible management experience in a large council-manager local government required.
- Significant experience in an urban setting of a community the size of Charlotte or larger preferred.
- Experience in a growing community with substantial infrastructure needs, complex management issues and high service demands preferred.
- Substantial finance and budgeting experience required.
- Experience managing a large, complex local government with a large number of employees important.
- Someone with experience with Smart Growth Principles, Managed Competition and the Balanced Scorecard.

Knowledge, Skills and Abilities

- Ability to successfully implement the vision of the City Council with progressive leadership.
- Proven ability to successfully manage the expectations of the City Council and the staff.
- Demonstrated skills and ability to manage well-developed large projects.
- Highly developed interpersonal skills.
- An excellent communicator, both verbally and in writing.
- An effective team leader operates in a business-like manner.
- A flexible and adaptable individual with well-developed organizational skills.
- Ability to seek out and successfully implement innovative ways to increase efficiency and control costs.
- Proven technical skills and expertise to manage numerous urban planning issues, development and redevelopment, an airport, public transit, public safety and utilities.

- Able to successfully balance infrastructure needs with operating and service needs.
- Ability and willingness to have a high public profile and visibility in the community.
- Ability to effectively facilitate, negotiate, analyze and problem-solve.
- Must be able to effectively set priorities and marshal resources for their accomplishment.
- A positive mentor to senior staff so as to promulgate consistent methods throughout the organization.
- Strong common sense and intuition.
- Able to effectively listen and consider various viewpoints.
- Models accountability.
- Ability to understand and effectively address regional issues.
- Technologically proficient and believes in the use of technology and systems to provide effective service delivery processes to citizens.
- Must be able to work effectively in a diverse environment and with many different groups and interests.
- Able to retain, attract and develop a high quality staff.
- Must be able to deliver high quality customer service.
- Provides continuous communications to Council and staff.
- Effectively deal with disparate viewpoints, yet keep the City moving forward.
- Must be able to strike a balance between the needs of neighborhoods, the central business district, and other needs of the City.
- Able to instill confidence at all levels and who can inspire staff.
- Demonstrated ability to successfully articulate issues/solutions and who is an effective implement policy decisions.

Personal Characteristics

- An individual who is
    - trustworthy
    - patient
    - open
    - approachable
    - fair
    - honest

- An individual who possesses high ethics and integrity.

City of Charlotte
Human Resources Philosophy

The City of Charlotte will attract and retain qualified, productive and motivated employees who will provide efficient and effective services to the citizens. Human resource programs will provide constructive support for the City's customer service, business and financial strategies. These programs will be reviewed on a regular basis and changed as circumstances warrant. They will be directed toward attaining measurable goals and organizational success.

Recruitment
The City will recruit and hire employees who are technically competent and customer focused.

Employee Responsibility
Employees will be held accountable for producing quality work and for exhibiting the highest commitment to honesty, integrity and customer service.

Commitment to Competition
The City of Charlotte is committed to providing quality services at a market competitive cost through service delivery by City employees or, when costs would be lower, through privatization. The City is committed to the skills development of its employees to enhance services to citizens and to make the City more competitive. When necessary due to organizational changes or privatization, the City is further committed to skills development to prepare employees for other opportunities within or outside of the City organization.

Employee Pay and Benefits
All types of employee pay, whether base pay, incentives or benefits, will be used to encourage employees to attain measurable performance goals/targets that support the City's mission. Pay will be based on performance while considering market conditions.

Base pay is the primary type of pay used to maintain market competitiveness; incentive pay will be the primary pay method used to communicate the changing goals of the City and to encourage teamwork. Employees will also be rewarded for attaining skills which make them more flexible and useful in helping Business Units meet their goals.

The City's Benefits Plan will provide a moderate level of income protection to employees against unexpected health, life and disability risks. Employees will be expected to share fairly in the cost of their benefits. The City will aggressively manage health care costs and actively support employee safety and wellness programs to reduce future health care costs.

Health and Safety
Employees will be reasonably protected against safety and environmental risks in the workplace.

Training and Development
Employees will receive sufficient training and counseling to successfully perform their jobs.

Employee Communications
Employees will receive clear and timely communications on issues which affect their work life and will have a reasonable opportunity for input into decisions on these issues.

Employee Relations
Employees will be treated with respect and without regard to race, sex, age, creed, handicap or for any other reason not related to their organizational contributions. Diversity will be respected and viewed as an asset to our workforce.

Approved by City Council 1993, revised 1995

BASE PAY AND TOTAL COMPENSATION
Ten Largest Council-Manager Cities
Results of Salary Survey Conducted by City of Charlotte Human Resources Department (August 2010)

(sorted by total compensation)

Name of Organization	Population (000)	Employees	Total Budget (000,000)	Current Salary	Auto	Deferred Comp.	Bonus Eligible	Severance Pay	Expense Allowance	Total
City of San Antonio	1,377	10,533	2,315	$315,000	$6,000	$0	No	No	No	$321,000
City of Dallas	1,300	13,350	2,750	$278,460	$0	$4,000	No	8 mos	No	$282,460
City of Austin	786	13,251	2,747	$242,008	$8,400	$22,000	No	12 mos	$8,820	$281,228
City of Phoenix	1,602	15,276	3,673	$236,997	$7,200	$26,070	No	No	No	$270,267
City of Virginia Beach	434	7,622	1,999	$219,715	$12,000	$20,500	Yes	12 mos	$6,485	$258,700
City of Fort Worth	728	6,264	1,282	$226,600	$7,800	$15,500	No	6 mos	No	$249,900
City of San Jose	965	5,840	2,718	$227,975	$0	$20,518	Yes	6 mos	No	$248,493
City of Tucson	549	4,638	1,310	$211,821	$5,196	$10,000	No	6 mos	No	$227,017
City of Charlotte	**728**	**6,363**	**1,650**	**$220,638**	**$5,700**	**$4,599**	**No**	**No**	**$3,600**	**$234,537**
Oklahoma City	560	4,582	877	$204,973	$7,000	$0	No	12 mos	No	$211,973
City of Las Vegas	568	2,940	2,223	$180,000	$7,200	$12,250	Yes	12 mos	$3,600	$203,050
	Median			$227,288					Median	$254,300

Median calculation excludes Charlotte City Manager data.

Name of Organization	Population (000)	Employees	Total Budget (000,000)	Current Salary	Auto	Deferred Comp.	Bonus Eligible	Severance Pay	Expense Allowance	Total
Mecklenburg County	895	4,278	1,350	$242,500	$0	$15,545	No	No	$18,738	$276,783

Name of Organization	Population (000)	Employees	Total Budget (000,000)	Current Salary	Auto	Deferred Comp.	Bonus Eligible	Severance Pay	Expense Allowance	Total
City of Raleigh, NC	406	3,655	620	$220,000	$8,400	$33,000	No	No	No	$261,400
City of Greensboro, NC	255	3,078	424	$179,500	$0	$5,385	No	2 Wks	$10,200	$195,085

Restructuring Government Committee Briefing

Water and Sewer Rate Study

Charlotte-Mecklenburg Utilities

December 13, 2010

REDOAK CONSULTING
A DIVISION OF MALCOLM PIRNIE

Existing Water and Sewer Rates

1 ccf = 100 cubic feet = 748 gallons

	FY11 Effective 7/1/10
Water Rates	
Fixed Charge (per month)	$2.40
Residential Volume Charges (per ccf)	
Tier 1: 0-4 ccf	1.45
Tier 2: 4-8 ccf	1.64
Tier 3: 8-16 ccf	2.69
Tier 4: 16+ ccf	5.32
Non-Residential (per ccf)	2.04
Wastewater Rates	
Fixed Charge (per month)	2.40
Volume Charge (per ccf)	4.31

For industrial customers, other charges may apply

Rate Structure Alternatives Balance Most Important Rate Design Criteria

Based on Stakeholder and Utilities Input

Financial	Revenue Stability
Customer impact	Economic development and affordability
Conservation	Water Conservation
Equity	Customers pay their fair share
Implementation	Ability and cost, public understanding

Summary of Public Outreach Efforts

Purpose:

- Obtain feedback on rate structure alternatives
- Educate and involve public on rate-setting process

Methods:

- Public Meetings
- Stakeholder Advisory Group Participation
- Comment Cards
- Rate Study Website
- Newspaper advertising
- Informational Literature

4

Stakeholder Advisory Group Members

- Greater Charlotte Apartment Association
- Childress Klein
- NC Green Industry Council
- Greater Charlotte Realtors Association
- The Peninsula Neighborhood
- The Town of Huntersville
- Real Estate & Building Industry Coalition
- Utilities Advisory Committee
- *Mi Gente* Newspaper
- Catawaba Riverkeeper Foundation
- Frito Lay / Charlotte Chamber
- Spring Park Neighborhood
- Beverly Crest Neighborhood
- Forest Ridge Neighborhood
- McCrorey Heights Neighborhood

Stakeholder Involvement Meetings

♦ Meetings

Summary of Feedback Received from Public Outreach Efforts

Preliminary Rate Structure Options

1. Add a fixed “availability” charge
2. Lower the sewer cap or bill based on average winter consumption
3. Lower the Tier 1 Rate
4. Adjust tier rates for irrigation-only meter customers
5. Adjust the water and sewer capacity fees

Or , No change to the existing rate structure

Summary of Written Public Comments

Rate Structure Option	Support	Against
1. Increase the Fixed Charge	4	6
2. Lower Sewer Cap or Use Winter Average	11	0
3. Lower Tier 1 Rate For Affordability	2	2
4. Adjust Rates for Irrigation-Only Master Meter Customers	5	0
5. Raising Capacity Fees	4	4
Other Comments		
Encourage conservation	2	
Maintain the Current Tier Structure	2	
Reduce the Number of Tiers	4	2
Lower the Tier Rates	1	2
Conservation Rate for Commercial Customers	1	
Flat Fee for Sewer	1	

Summary of Verbal Comments from Public Meetings Regarding the Rate Structure

- Rate Impacts
  - Several were against increasing the bill for low usage customers.
  - Others were against lowering the Tier 1 rate.
- Smart Control Irrigation Option 3
  - Several spoke in support of this alternative.
- Capacity fees
  - Several were against increasing the capacity fees.

Stakeholder Advisory Group Feedback

- Majority Supportive of:
  - Adding an availability fee
  - Billing sewer based on the average winter consumption
  - Lowering the lifeline (Tier 1) rate
  - Modifying the tiers for irrigation meter accounts if smart irrigation controllers are used
  - Adjusting (i.e., increasing) the capacity fees
  - Making changes all at once instead of phasing in the changes

Stakeholder Advisory Group Feedback

- Minority Opinions:
  - Two members strongly against increasing the capacity fees
  - Two members supported drought surcharge rates
  - Two members supported having rates that changed seasonally
  - One member was a strong advocate for raising the threshold for the 4th Tier
  - One member was strongly supportive of having a separate rate structure for condo communities with private roads.

The Following Alternative Rate Structure is Proposed

1. Add a fixed “availability” charge that varies by meter size
2. Bill sewer based on average winter consumption
3. Lower the Tier 1 rate to maintain / improve affordability
4. Lower the Tier 4 rate to more closely align with cost of service

The Following Alternative Rate Structure is Proposed

5. Raise the Tier 2 and Tier 3 rates to remain revenue neutral
6. Adjust tier rates for irrigation-only meter customers using smart irrigation control
7. Implement the rate structure changes all at once without phasing

Alternative Rate Structure Illustration - Water Rates

Water Rates		Existing	Alternative	
Fixed Billing Charge		**$2.40**	**$2.40**	per bill
Availability Charge		**$0.00**	$2.19	per eq meter
Residential				
Tier 1	0-4	**$1.45**	$0.89	per ccf
Tier 2	4-8	**$1.64**	$1.77	per ccf
Tier 3	8-16	**$2.69**	$3.55	per ccf
Tier 4	>16	**$5.32**	$4.61	per ccf
Commercial		**$2.04**	$1.86	per ccf

Water and sewer rates shown are for illustration only and are revenue neutral in comparison to the existing 2011 rates. Actual 2012 rates under the alternative rate structure will be developed during the budget process.

Alternative Rate Structure Illustration - Sewer Rates

Sewer Rates	Existing	Alternative	
Fixed Billing Charge	**$2.40**	**$2.40**	per bill
Availability Charge	**$0.00**	$3.73	per eq meter
Volumetric Rate	**$4.31**	$3.99	per ccf
Sewer Cap - SFR	**24 ccf**	Average Winter Consumption	

Water and sewer rates shown are for illustration only and are revenue neutral in comparison to the existing 2011 rates. Actual 2012 rates under the alternative rate structure will be developed during the budget process.

Availability Fee Varies by Meter Size

Meter Size	Scale	Availability Fee Water	Availability Fee Sewer
3/4"	1.0	$2.19	$3.73
1"	2.5	$5.48	$9.33
1-1/2"	5.0	$10.96	$18.66
2"	8.0	$17.54	$29.86
3"	17.5	$38.37	$65.32
4"	30.0	$65.77	$111.98
6"	52.5	$115.10	$195.97
8"	90.0	$197.31	$335.95
10"	157.5	$345.29	$587.92
12"	170.0	$372.69	$634.58

Water and sewer rates shown are for illustration only and are revenue neutral in comparison to the existing 2011 rates. Actual 2012 rates under the alternative rate structure will be developed during the budget process.

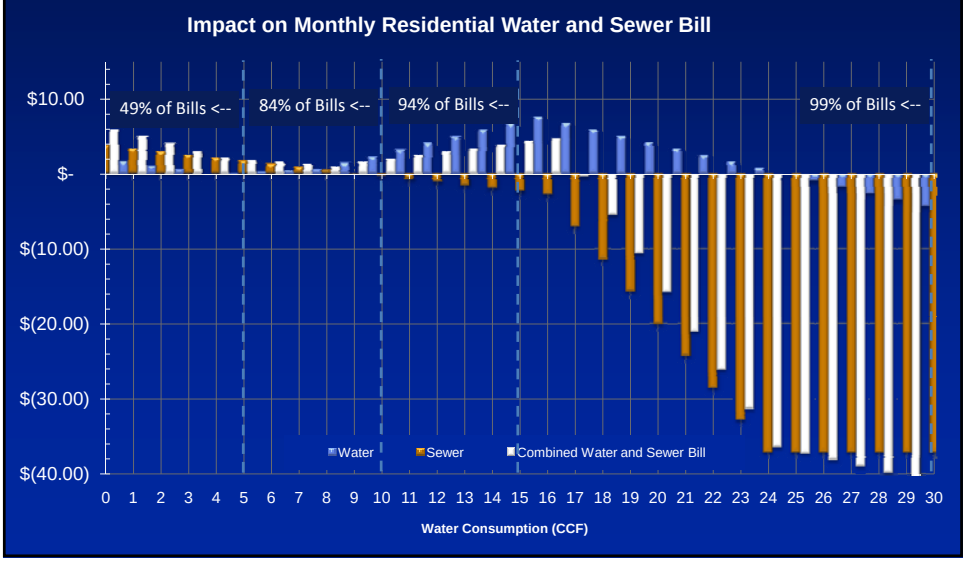
Water and Sewer Bill Impact Alternative Rate Structure Illustration

Single-Family Residential

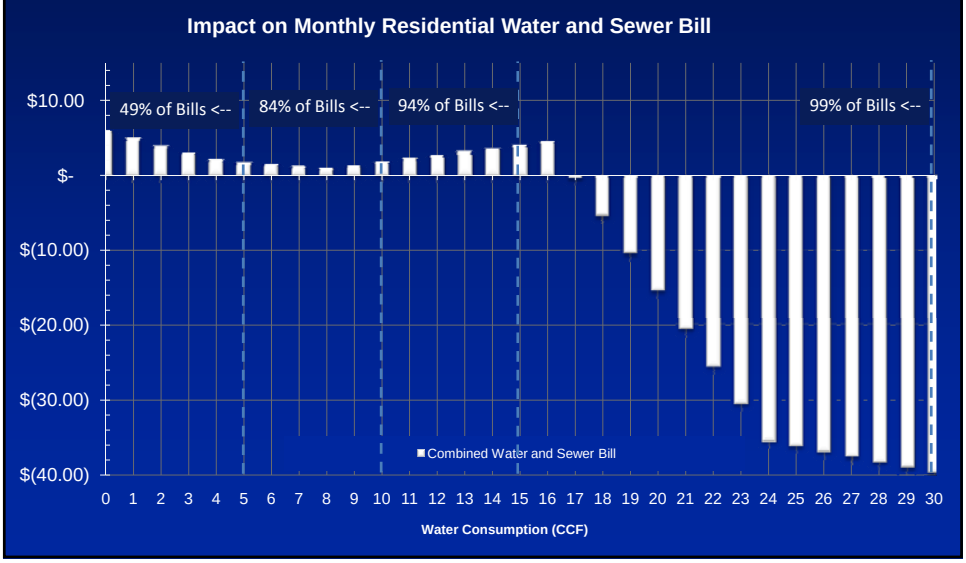
Usage	Existing Structure	Option	Difference
5 ccf	$33.79	$35.55	**+$2.19**
15 ccf	$100.64	$104.72	**+$5.36**
30 ccf	$216.60	$176.73	**(-$38.50)**

Water and sewer bill impacts shown are for illustration only and are revenue neutral in comparison to the existing 2011 rates. Actual 2012 rates under the alternative will be developed during the budget process.

Alternative Rate Structure Illustration
Residential Bill Impact



Alternative Rate Structure Illustration
Residential Bill Impact



Commercial Bill Impact
Alternative Rate Illustration

Meter Size	Usage	Existing Total Charges	Alternative Total Charges	Difference	% Diff
3/4"	5	$36.55	$39.96	$3.41	9%
3/4"	7	$49.25	$51.65	$2.40	5%
3/4"	17	$112.75	$110.13	($2.62)	-2%
1"	35	$227.05	$224.26	($2.79)	-1%
1"	60	$385.80	$370.44	($15.36)	-4%
1"	97	$620.75	$586.78	($33.97)	-5%
2"	160	$1,020.80	$987.73	($33.07)	-3%
4"	240	$1,528.80	$1,585.85	$57.05	4%
6"	450	$2,862.30	$2,947.05	$84.75	3%
8"	1600	$10,164.80	$9,893.37	($271.43)	-3%

Commercial bill impacts depend upon actual water usage and meter size

Water and sewer bill impacts shown are for illustration only and are revenue neutral in comparison to the existing 2011 rates. Actual 2012 rates under the alternative will be developed during the budget process.

Affordability Review
Alternative Rate Structure

- Analysis of affordability indicates that:
  - The alternative rate structure provides approximately the same level of affordability for basic service as the existing rate structure.
  - Utilities provides basic water and sewer service at a cost that is much lower than most large metropolitan utilities.

Capacity Fees

- Could use alternative industry-accepted method of calculating capacity fees
- Results in recovering more of the cost of system expansion through these one time fees paid by new development
- Could slightly lower the water and sewer rates to recover the same amount of revenue as the existing rate structure

Questions / Discussion

Water and Sewer Rate Study

Stakeholder Advisory Group
Feedback on Rate Structure Options

Summary:

The Stakeholder Advisory Group (SAG) was formed to provide input regarding the current water and sewer rate structure and possible alternatives. Through a series of four meetings the SAG has determined that changes to the current rate structure are warranted. These changes are summarized below:

1. Adding an availability fee to recover some portion of annual debt service
2. Billing sewer based on the average winter consumption is more equitable than the current cap method
3. Lowering the lifeline (Tier 1) rate will improve affordability
4. Modifying the tiers for irrigation meter accounts if smart irrigation controllers are used will improve water use efficiency
5. Adjusting (i.e., increasing) the capacity fees will more appropriately reflect the cost of serving growth

While there was consensus among SAG members on items 1-4, two SAG members (of the 14) were in strong opposition to item 5. The two members felt any increase in capacity fees would contribute negatively to economic development in the Charlotte-Mecklenburg area.

Background and Findings:

The purpose of this memorandum is to document the feedback received from the SAG pertaining to the water and sewer rate structure options and alternatives. This memorandum was prepared by the Charlotte-Mecklenburg Utilities (CMU or Utilities) rate study consulting team (CMU management and Red Oak Consulting), and was reviewed and edited by the members of the SAG prior to finalizing and forwarding to the Restructuring Government Committee of the Charlotte City Council.

The SAG was formed in August 2010 with the purpose involving a diverse representation of the customer base in examining the existing rate structure and serving as a sounding

board regarding rate structure alternatives. The SAG consisted of a diverse group of customers with the following interests represented:

- Greater Charlotte Apartment Association
- Childress Klein
- NC Green Industry Council
- Greater Charlotte Realtors Association
- The Peninsula Neighborhood
- The Town of Huntersville
- Real Estate & Building Industry Coalition
- Utilities Advisory Committee
- *Mi Gente* Newspaper
- Catawaba Riverkeeper Foundation
- Frito Lay / Charlotte Chamber
- Spring Park Neighborhood
- Beverly Crest Neighborhood
- Forest Ridge Neighborhood
- McCrorey Heights Neighborhood

A total of four meetings were held with the SAG between August and November 2010. The meetings were held to describe the process of developing a rate structure that is the best fit for the community, obtain feedback on pricing criteria that the group thought were the most important to developing rate structure alternatives and the selection of a new rate structure, and to provide feedback on rate structure alternatives. The SAG also considered the option of continuing with the current rate structure, i.e., the status quo – no changes to the current approach to charging for water and sewer service.

The SAG members completed a ranking exercise that helped to identify the most important criteria or pricing objectives, to consider in evaluating water and sewer rate structure alternatives. The results reflect a combination of the opinions of each of the members of the group. A total of 13 criteria were identified and discussed, and then the SAG members independently ranked the importance of each criterion. The resulting ranking of these criteria are provided below.

Stakeholder Advisory Group		
Rank	**Criteria**	**Score**
1	Economic Impact	2.4
2	Average-Day Demand Reduction	2.3
3	Peak Demand Reduction and Cost Recovery	2.1
4	Revenue Stability	2.0
5	Equity Within Classes	1.6
6	Equity Between Existing and New Customers	1.6
7	Equity Between Classes	1.5
8	Rate Stability / Predictability	1.5
9	Affordability	1.4
10	Rate Impact	1.1
11	Administrative Burden	1.1
12	Public Understanding/Education	0.7
13	Public Acceptance	0.6

Higher number score equals a relatively high level of importance.

The top five criteria as scored by the SAG were:

1. *Economic Impact* - this criterion considers the economic goals of the community when selecting a rate structure. Rates that impact large-volume commercial and industrial users can be unfavorable to them locating, or maintaining their locations in the area. This criterion evaluates the ability of businesses to afford water, similar to the affordability criterion for residential customers.

2. *Average-Day Demand Reduction* - this criterion considers pricing as an incentive to encourage the reduction in average-day demand resulting from a particular rate structure alterative. It rates the importance of annual water reduction independent of changes to peak-summer time demand.

3. *Peak Demand Reduction and Peak Demand Cost Recovery* - this criterion considers pricing as an incentive to encourage the reduction in peak-season or summer-time usage and the recovery of the cost of peak water demands. Rate structures that encourage peak demand reduction can have an impact on capital expansion projects as peak-season usage is one of the driving factors for sizing of water system components.

4. *Revenue Stability* - this criterion considers the importance of minimizing the volatility of rate revenue associated with the various rate structure alternatives to help ensure that Utilities meets its financial goals and requirements. In general, rate structures that promote conservation or water use efficiency through low fixed charges and low rates for base consumption levels result in more volatility in revenues. In opposite fashion, a higher fixed charge result in greater revenue stability (and less conservation).

5. *Equity within Classes (Intraclass Equity)* - this criterion evaluates the importance of ensuring that no customers are subsidizing the costs of service for other customers within a class (e.g., small-volume residential users are not being subsidized by large-volume residential users).

Based on the feedback from the SAG, as well as feedback received at the 10 general public meetings that were held throughout the CMU service area, through written comments, and from meetings held with the Utilities Leadership Team, several rate structure options were developed and presented to the SAG. These included the following:

1. *Add an Availability Fee and lower the Volumetric Rates.* A fixed monthly availability fee would be added that varies and increases by meter size. The fee would recover a portion of the annual water and sewer debt service costs. Adding the availability fee would reduce the volatility of the rate revenues received since more costs would be recovered on a fixed fee basis. As a result, the volumetric rates would decrease in order to recover the same amount of revenue as the current rate structure.

2. *Adjust the Sewer Cap.* The sewer cap for single-family residential customers would be lowered to be more reflective of the volume of water discharged into the sewer system. The sewer cap adjustment would reduce the volume of water that is billed the sewer rate. As a result, the sewer rate would increase in order to generate the same amount of revenue as the current structure.

3. *Bill for Sewer using Average Winter Consumption.* Residential sewer charges would be based on the lower of: (1) the average monthly winter consumption[1] or (2) the current month consumption. The sewer cap approach would be eliminated. Billing sewer based on average winter consumption would require an increase to the sewer rate to recover the same amount of revenue as the sewer cap approach.

4. *Lower the Lifeline (Tier 1) Rate.* The lifeline (Tier 1) water rate would be lowered to mitigate bill impacts for customers on the low end of consumption. Tiers 2 through 4 would be slightly increased to recover the same amount of revenue as the existing structure.

5. *Modify Tiers for Irrigation Meter Accounts.* All water use via irrigation meter accounts would be billed at the Tier 3 rate if they install, operate and maintain a smart sensor irrigation control system to control irrigation in accordance with the Utilities' Liquid Assets irrigation program. Irrigation meter accounts without the smart sensor system would be billed at the Tier 3 and Tier 4 rates.

6. *Adjust the Capacity Fees.* The current capacity fee methodology would be adjusted to an alternative, industry-accepted method, which would likely increase the water and sewer capacity fees and recover more of the cost of system expansion via these fees. This would slightly lower the water and sewer rates to recover the same amount of revenue as the existing structure.

As these rate structure options were discussed with the SAG, alignment of the options to the criteria that the SAG thought were most important was presented, along with the relative impact of these options on customer bills. It was also explained that each of the options would be revenue neutral, that is, the resulting revenue generated from the options would need to generate same amount of revenue as the existing rate structure. Combinations of these options and the resulting impact on a customer's bill were also presented.

Feedback from the Stakeholder Advisory Group

By design, the SAG is a diverse group of customers with various thoughts, opinions, and suggestions regarding the rate structure. Therefore, it was no surprise that feedback received from the SAG was diverse as well, with several differing opinions. However, at the conclusion of the meetings with the SAG, the following combination of options emerged as a rate structure alternative that the majority of the SAG members supported.

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[1] Average Winter Consumption (AWC) as determined from metered water use during the months of January through March and updated each year.

Elements of the Rate Structure Alternative Generally Supported by the SAG:

- Adding an Availability Fee to recover some portion of annual debt service
- Billing sewer based on the average winter consumption
- Lowering the lifeline (Tier 1) rate to improve affordability
- Modifying the tiers for irrigation meter accounts if smart irrigation controllers are used to irrigate efficiently
- Adjusting (i.e., increasing) the capacity fees to recover more of the cost of growth from new customers; to more appropriately reflect the cost of serving growth

While most of the SAG members supported these rate structure elements, not all SAG members supported each of them. There was disagreement on one element in particular. A minority of SAG members were strongly opposed to increasing the capacity fees. The opposition stemmed from the notion that doing so could dampen economic development and make the Charlotte-Mecklenburg area less competitive when compared to other communities in the region and the State. A member of the SAG offered objections to the use of a fourth tier at the 16 ccf level. While the group was supportive of incentives to conservation, one member felt that the current 16 ccf threshold was "inordinately punitive and at the heart of current customer anger over excessive water bills".[2]

The majority of the SAG members were in favor of making the rate structure changes all at one time, rather than phasing in the changes. The general consensus among the group is captured by the following quote from one of the SAG members: "I am not in favor of phasing the changes in because it will confuse people."

Finally, in order to provide the reader with a flavor of the input and feedback received from the SAG regarding the rate structure elements, the following comments were compiled during the SAG meetings regarding each of the rate structure elements that were discussed.

Comments Regarding the Availability Fee Option

- Taking a fixed cost and spreading it across all uses is just good business practice.
- Capturing more dollars up front is good and provides revenue stability.
- A fixed availability fee is something I am in favor of because it helps captures costs up front.
- Utility companies like telephone, power, etc., are all charging basic fixed fees just to provide the basic service. CMU should be no different.

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[2] The SAG member expressing issue with the 16 ccf threshold further stated that "defining of a 16 ccf user as a "water waster" belied the fact that most residents in predominantly residential areas use water at higher rates during the summer months as a routine and essential use of water. A proposal (by this member) to place the fourth tier threshold at 20 to 25 ccf during the summer months was not included in the final SAG recommendations."

- I like the idea of the Availability Fee, but would prefer it to be a lower amount. There is concern that people on the lowest income level in the community would be the hardest hit.
- I am concerned with residents who are already conserving water because they cannot afford their water bill to go over a certain dollar amount.

Comments regarding lowering the lifeline (Tier 1) rate

- A lifeline subsidy is needed.
- Lowering the lifeline rate would take the "sting" out of the new availability fee if it is implemented.
- Consider the lifeline rate as similar to the phone company's 911 service fee. This service helps those who cannot afford the full service.
- If the utility is run like a business, then providing a low income subsidy should not matter. Is this a utility that provides a service or a welfare operation where we subsidize those that cannot pay?

Comments Regarding Billing sewer based on the average winter consumption

- The majority of the group was in favor of using average winter consumption over lowering the sewer cap.
- I am not in favor of lowering the sewer cap because I think it is not really objective, but I prefer the wintertime average approach.

Comments regarding charging Tier 3 for irrigation meter accounts using smart controllers:

- Encouraging conservation is good.
- Modifying the irrigation tiers does the strongest toward pushing for conservation because it impacts the tier 3 rate the most.
- Raising tier 3 would raise the cost to irrigation customers. If we really want to encourage conservation then CMU needs to incentivize it and not penalize it. Consider a water conservation tier.
- I am in favor of a new rebate program for water smart appliances.

Comments received regarding raising the capacity fees:

- I think we should raise capacity fees because it is the cost of coming into a community and tapping into the system. It does not have to be a huge increase, but CMU is already on the lower end, so I don't see why we can't increase the fees.
- I strongly support raising the capacity fees.

- The connection fee for new construction should reflect the cost of service, including lines and the incremental cost of new facilities. The phasing-in of such fees might be necessary.
- The Charlotte area is a great place to live and work - always has been. In many ways, developers helped make our Region achieve this high standard of living, albeit with some costs to the environment. However, the golden age of developers is probably over and now we are moving into a phase of responsible and managed growth and development. Raising capacity fees a reasonable amount will not limit our creative developer's efforts to provide unique communities and commercial facilities and still make a profit.
- Two SAG members spoke in strong opposition to raising the capacity fees, "…I strongly disagree with raising the capacity fees…" raising the fees will hurt economic development.
- I am opposed to raising capacity fees because it raises the cost for a developer to come into the Charlotte-Mecklenburg community.

Other Comments:

- I suggest making adjustments in the rate structure during droughts. The price for all blocks (perhaps not the lowest) should change in conjunction with the Catawba River Low Inflow Protocol.
- Consider time-of-day rates for large irrigation customers.
- Although we didn't get a chance to discuss during the meetings, I would like the Utility to consider developing and implementing an entirely separate Drought Rate structure that can be put in place during drought conditions and removed when the drought is over. This rate structure, in my mind, would raise all tiers during drought conditions to further enforce the idea of conservation and the cost of providing water during resource limited climactic periods. It could be structured so the Utility could still recoup costs during lower water usage. I think a public participation group should vet this rate structure if it is deemed necessary and prudent.
- I am still a fan of seasonal rate changes. Winter rates (November to April) with less tiers and lowers costs per unit when peak usage is lower and it costs the Utility less to make a unit of water. Summer rates (May to October) with a higher cost per unit and more tiers when annual peak demands are largest and it costs the Utility more to make a unit of water.
- Water is our next oil - it is arguably our most precious natural resource. Whatever the Utility decides to do in final form should balance capital needs and service to the public with conservation and environmental stewardship.
- I believe that it's critical for you and those in authority to understand just how punitive the 4th tier is for predominantly residential customers. Although <u>your statistics</u> show that only a small proportion of customers use more than 16 ccf on an annual basis, the <u>actual percentage</u> of users over 16 ccf during the summer

months is significantly higher. In my view, two things need to happen and soon. 1) the 4th tier needs to be adjusted to a threshold of 20 to 25 ccf; and 2) spending and borrowing must be curtailed and the utility brought to a sustainable budgeted level.

- One member expressed an issue related to the rate structure and condominium associations with private roads, which pays the same rates as condominium associations with public roads. However, in the 25+ years that the Condo Association has been in existence, they have been responsible for making all repairs to any water mains that lie under our private streets. The other Condo Association has not had to pay for any infrastructure maintenance. This creates an extremely large inequality, because we are forced to maintain our infrastructure in order to receive water and pay for any increase in costs of water usage for times when we have leaks and the other group pays nothing for infrastructure and nothing for usage that is deemed to be caused by water main breaks on the water company maintained portion of their streets. Either we need to be under a lower rate structure in order to afford to maintain the infrastructure or the water company should take over the cost of repairs to the infrastructure. I am sure they have considered the cost of ongoing maintenance in their rate calculations and yet the credit for not having used any of their money to make repairs has never come back to our association or others in the same private road situation.

2011 Proposed Calendar for City Council Restructuring Government Committee

4th Thursday at Noon in Room 280
(unless otherwise noted)

January 27

February 24

March 24

April 28

May 26

June 23

September 22

October 17
(3rd Monday)

November 21
(3rd Monday)

Notes:
No July or August meetings due to Council's summer schedule
No December meeting pending new Committee assignments

- D R A F T -

MEMORANDUM

8 November 2010

To: John Mastracchio, Rick Giardina

From: Manny Teodoro

Re: Analysis of Proposed Water & Sewer Rates, Charlotte-Mecklenburg Utilities

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Charlotte-Mecklenburg Utilities (CMU) has identified affordability as an important goal (among others) in the design of its water and sewer service rates. Pursuant to that goal, we have analyzed the affordability of CMU's current water and sewer rate structures, as well as three alternative structures that are currently under consideration. This memorandum traces the basic methodology and summarizes the results of the analysis; complete statistical results are included in an appendix for interested readers.

MEASURING AFFORDABILITY

The aim of this analysis is to assess the impact that changes in CMU's rate structure are likely to have on the cost of *basic service* for *low-income single-family residential customers*. This focus on low-income customers distinguishes the present work from many typical analyses of affordability, which focus on average service demands and/or median-income households. Rather, we proceed from the assumption that affordability is most critical for low-income households, for whom the cost of basic water and sewer services may cause serious economic trade-offs.[1]

Affordability Ratio (AR). The centerpiece of this analysis is the *Affordability Ratio*, which measures the cost of minimal water and sewer service for a household as a percentage of that household's disposable income. *Disposable income* is defined as household gross annual income less *core expenditures,* which include *taxes, housing, food, health care,* and *home energy* costs. All other expenses are considered discretionary for purposes of the present analysis, since no other expenses can be considered to be as important to sustaining human health as water and sewer services.

Because minimum water and sewer service needs vary according to the number of people in a household, the AR varies according to household size. This analysis sets the minimum per capita household water consumption at 50.0 gallons per person per day (gpcd), which is

[1] This understanding of *affordability* is what the National Drinking Water Advisory Council (NDWAC) called "household relative affordability." See NDWAC, *Recommendations of the NDWAC to the U.S. EPA on its National Small Systems Affordability Criteria* (2003) p.10-11.

substantially lower than average indoor water consumption in the United States of 59.8 gpcd.[2] Thus, a family of four persons is assumed to require a minimum of 400 gallons per day. CMU's median single-family residential consumption is about 5 ccf, or 3,740 gallons per month during the winter, which roughly approximates indoor demand. At 50 gpcd, this rate implies an average household size of 2.49 persons, which is almost exactly Mecklenburg County's average owner-occupied household size (2.52). We therefore can be confident that 50 gpcd is a reasonable assumed level of demand for basic water service.[3]

Mathematically, the formula for AR for a given household is:

$$\frac{\text{(Cost of basic per capita water + sewer service) x Persons in Household x 100}}{\text{(Household income – taxes – housing – food – health care – home energy)}}$$

To evaluate the affordability of CMU's proposed rates, we analyze data from the 2008 Consumer Expenditure Survey (CEX), conducted biennially by the U.S. Commerce Department's Bureau of Labor Statistics. The CEX captures household-level data on a wide variety of household income and expenditures, as well as household demographic data. Using the household-level CEX data, we calculate disposable income and minimum water and sewer service cost for each household. These results were used to calculate the AR for household in the 2008 CEX sample under the existing and proposed alternative rate structures.

After calculating the AR for each household, we use statistical regression analysis to estimate AR for all households in owner-occupied homes. The 2008 CEX uses a national sample, not a Charlotte-Mecklenburg County sample. In order to draw inferences about CMU's customers from the CEX data, we apply a series of weights to account for Mecklenburg County's demographic and economic characteristics (see appendix for detail on weighting and statistical modeling). The regression analyses use several demographic and economic variables that proved to be statistically significant predictors of AR in our "virtual Mecklenburg County:" household size, logged income, core expenditures, whether there are children in the household, marital status, race, ethnicity, and whether the head of household is aged 65 or older. Coefficients from the two models were then used to generate estimated AR values for households of different sizes

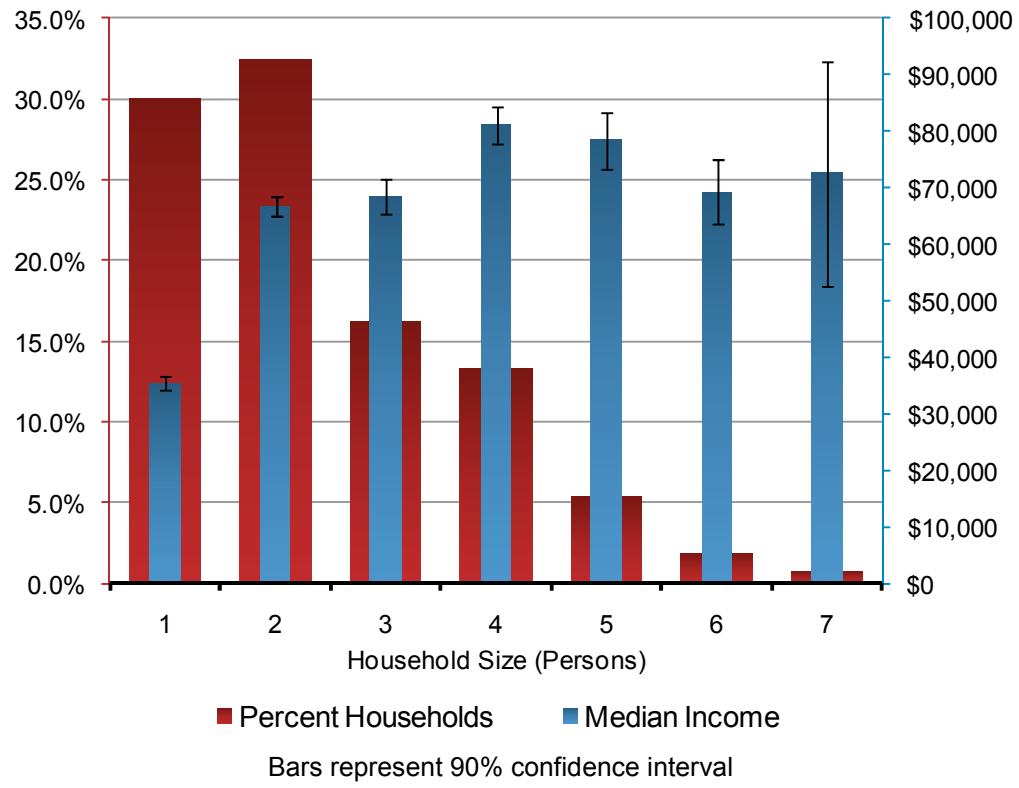
[2] Mayer, Peter et al., *Residential End Uses of Water* (Denver, CO: AWWA Research Foundation, 1999). This average consumption figure does not include consumption attributed to leaks.

[3] Research on the relationship between income and water demand shows a generally positive relationship between income and demand: as income rises, so does demand for water (for a review of relevant literature, see Harlan, Sharon et al., "Household Water Consumption in an Arid City: Affluence, Affordance, and Attitudes," *Society and Natural Resources* 22(8):691-709 (2009)). There are very few studies that analyze micro-level data, but they consistently show a positive relationship between income and indoor demand, even after controlling for household size. However, reliable studies exist for only a handful of utilities, and studies based on aggregate data show mixed results, with indoor demand sometimes inversely related to income. There are no direct data available on income and indoor demand in Mecklenburg County.

and income levels, holding other variables constant. In this way, we can validly estimate the effects of rate design affordability at different incomes and household sizes while controlling for other factors that might affect affordability. See Table A1 in the appendix for full model results.

Income and Household Size in Mecklenburg County. The two most important variables in calculating AR variables are household size and income. To put the present analysis in context, we present data on income and household size in Mecklenburg County. Since affordability is a function of both income and household size, it is important to consider the distribution and relationships between these variables, rather than simply county-wide medians and averages. Figure 1 shows the distribution of households in Mecklenburg County by size, as well as the median income for various household sizes. All income and household size data for Mecklenburg County are drawn from the U.S. Census Bureau's 2006-2008 American Community Survey.

Figure 1: Distribution of Households & Median Income by Size, Mecklenburg County



As Figure 1 illustrates, over 60 percent of Mecklenburg County households are one or two persons, and incomes generally increase as household size increases. However, the error bars show that the variability of income also increases with household size. So while larger

households (over 6 persons) have higher-than-average incomes as a group, there are many lower-income large households, too.

Table 1: Poverty in Family Households by Size, Mecklenburg County

Household Size (Persons)	Families in Poverty	Poverty Rate (%)
2	5,480	5.9
3-4	8,059	8.1
5-6	2,923	11.8
7+	402	15.5
Total	16,864	7.7

As Table 1 shows, the poverty rate increases among larger family households. These rates of poverty are relatively low; the overall poverty rate is 10.8 percent in North Carolina and 9.6 percent in the United States.

AR_{20}. We estimate the AR for the household in the 20th income percentile (AR_{20}) as the standard for affordability—not the *median* household or the poverty level, which are often used in conventional affordability analysis. There are several good reasons for selecting AR_{20} as the affordability standard, but the most important is that in most studies of welfare economics, the 20th percentile represents the lower boundary of the middle class, where families have very limited financial capacity, but are unlikely to qualify for most income assistance programs. For example, for 2006-2008, the 20th household income percentile in Mecklenburg County was $26,060; in 2007 the gross income limit for food stamp eligibility in North Carolina was $21,588 for a family of three.[4] The 2008 poverty level was $17,600 for a family of three. The AR_{20}, is therefore the main metric of affordability in the present analysis. The average household size in Mecklenburg County is 2.40; since a "fractional person" is impossible, we calculate AR_{20} for a 3-person household. We also calculate AR_{20} for a six-person household to represent the extreme case: a large, low-income household.

In addition to the AR_{20}, it is useful to compare the logged income coefficients generated by the statistical models for different rate structures. These coefficients will always be negative for any rate structure, since low-income households will have higher AR values than high-income households. However, more negative coefficients indicate relatively greater burdens on lower-income households, so comparing the coefficients of two or more rate structures offers a sense of how costs are shared across income groups.

[4] See http://www.nccp.org/profiles/NC_profile_29.html#2 for food stamp eligibility information.

Rate structures. We analyze the existing rates and three alternative rate structures:

- *Alternative 1*, which adds a fixed charge based on meter size;
- *Alternative 2,* which lowers the sewer volume cap; and
- *Alternative 3,* which adds a fixed charge, reduces the first tier volume rate, and lowers the sewer volume cap.

Table 2 shows the estimated cost of basic water and sewer service for 3- and 6-person households under the existing rate structure and the three proposed alternatives. Full details on these proposed rate alternatives are available separately.

Table 2: Annual cost of basic water and sewer service under rate alternatives

Rate Structure	3-Person Household		6-Person Household	
	Cost	Difference from Existing	Cost	Difference from Existing
Existing	$478.16	N/A	$956.96	N/A
Alternative 1	501.20	+23.04	925.76	-31.20
Alternative 2	529.40	+51.24	1,014.68	+88.92
Alternative 3	482.96	+4.80	918.56	-96.12

Estimates at 50gpcd for 30.67 days per month.

RESULTS

Table 3 and Figure 2 summarize the results of our analysis; more detailed results are included as appendices to this memorandum. Since the four rate structures analyzed here revenue-neutral—that is, they are designed to generate equal rate revenue—any differences in AR across the rate structures is attributable to rate design.

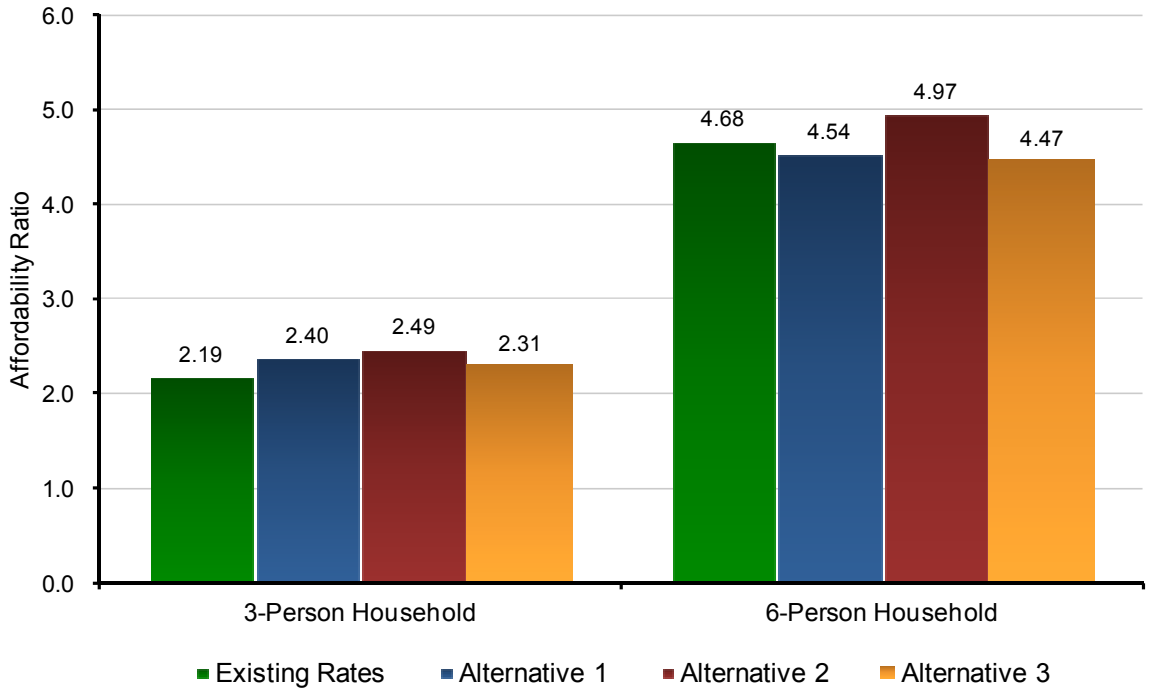
The substantive differences in affordability across the four rate structures are modest. For 3-person households, the alternative rate structures cause very slight increases in AR_{20}, but under all four structures, households' basic water and sewer costs range between 2.19 and 2.49 percent of discretionary income. The very modest increases in AR_{20} for the alternative structures are due to the increased fixed charges and/or lower sewer caps. This effect is mitigated as household size increases, however: estimates for a 6-person household, the lower tier 1 volume charges levied under alternatives 1 and 2 actually lead to smaller AR_{20} values than under the existing rate structure. The log income coefficients reported in Table 3 show that the alternatives tilt the revenue burden *very* slightly more toward lower-income customers than the existing rates. But these differences are mild, and the coefficients hardly vary across the three alternatives. In short, the differences in affordability between these four rate structures are relatively minor, and there is almost no appreciable difference in progressivity (the distribution of costs to high- and low-volume customers) across the three alternatives.

Table 3: AR_{20} estimates under existing and alternative rate structures

Rate Structure	3-Person Household		6-Person Household		Log Income Coefficient
	Monthly W+S Charge	AR_{20}	Monthly W+S Charge	AR_{20}	
Existing Rates	$39.85	**2.19**	$79.75	**4.68**	-1.169
Alternative 1	41.77	**2.40**	77.15	**4.54**	-1.173
Alternative 2	44.12	**2.49**	84.56	**4.97**	-1.173
Alternative 3	40.25	**2.31**	76.55	**4.47**	-1.176

AR20 is the minimal water and sewer cost as a percentage of disposable income for a household at the 20th income percentile. Estimates based on demographically-weighted Heckman regression model of 2008 Consumer Expenditure Survey data, owner-occupied homes only. Family size and incomes are manipulated in these estimates; other variables are evaluated at their means.

Figure 2: AR_{20} estimates for 3- and 6-person households



Are these rates affordable? Comparisons of AR_{20} values are valid only within the present set of alternatives—there are no "golden numbers" or useful universal standards of affordability. What is "affordable" and how important affordability is relative to other goals are ultimately

matters of judgment for CMU's policymakers. Officials must decide what proportion of a low-income household's disposable income it is reasonable to charge for basic water and sewer service, and which of the present alternatives offers the best balance of public values. With this note aside, the alternative structures analyzed here all represent very small, incremental changes to extraordinarily affordable existing water and sewer rates. By virtue of its minimal fixed charge and inclining block volume charges, CMU's existing rate structure offers basic water and sewer services at a cost much lower than most large metropolitan utilities. Each of the proposed alternative structures would affect affordability to some extent. Among the three rate alternatives analyzed here, *Alternative 3* is the most attractive from an affordability perspective. *Alternative 3* has the mildest affordability impact on median households, and actually improves affordability for larger households.

Whether these projected estimated differences in affordability across alternatives are significant enough to warrant acceptance or rejection of one or another alternative is a matter of policy judgment. For a three-person household, the maximum absolute difference between existing and alternative cost for basic service is only $4.27 monthly; for a six-person household, the maximum absolute difference between alternatives is just $8.01monthly. It is worth noting, however, that rate designs can carry a great deal of "path dependence" with them: future utility leaders are most likely to make across-the-board adjustments or minor adjustments to existing structures, rather than making significant rate structure changes. For this reason, minor differences in affordability impacts today may carry important implications into the future.

Table A1: Statistical models

Variable	Existing Rates	Alternative 1	Alternative 2	Alternative 3
Linear model				
Log income	-1.17***	-1.17***	-1.17***	-1.18***
	(0.01)	(0.01)	(0.01)	(0.01)
Log core expenses	0.15***	0.15***	0.15***	0.15***
	(0.01)	(0.01)	(0.01)	(0.01)
Family size (persons)	0.25***	0.21***	0.23***	0.22***
	(0.01)	(0.05)	(0.01)	(0.01)
Children in household	0.10***	0.08***	0.09***	0.08***
	(0.02)	(0.01)	(0.01)	(0.01)
Head of household >65 yrs old	-0.01	-0.00	-0.00	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Nonwhite race	0.02*	0.02*	0.02*	0.02*
	(0.01)	(0.01)	(0.01)	(0.01)
Latino/Hispanic origin	0.04**	0.03**	0.03**	0.03**
	(0.02)	(0.02)	(0.02)	(0.02)
Married	0.15***	0.10***	0.12***	0.10***
	(0.01)	(0.01)	(0.01)	(0.01)
Intercept	10.53***	10.82***	10.78***	10.78***
	(0.07)	(0.06)	(0.07)	(0.06)
Selection model				
Children in household	-0.15	-0.09	-0.11	-0.01
	(0.25)	(0.21)	(0.21)	(0.19)
Head of household >65 yrs old	-0.17*	-0.10	-0.18*	-0.10*
	(0.10)	(0.08)	(0.10)	(0.09)
Nonwhite race	-0.05	-0.02	-0.07	-0.07
	(0.09)	(0.08)	(0.10)	(0.09)
Latino/Hispanic origin	0.49	0.56	0.33	0.40
	(0.01)	(0.62)	(0.44)	(0.54)
Married	0.35*	0.26*	0.29	0.26*
	(0.20)	(0.15)	(0.18)	(0.15)
Intercept	1.69***	1.42***	1.71***	1.57***
	(0.16)	(0.14)	(0.14)	(0.14)
Rho	0.92	0.96	0.89	0.96
	(0.04)	(0.02)	(0.04)	(0.02)
Selected N	4,520	4,520	4,520	4,520
Total N	4,606	4,606	4,606	4,606
Log pseudolikelihood	192.15	435.34	308.55	430.66
Pseudo R^2	.96	.97	.97	.97

Cells contain coefficients generated by linear models of logged Affordability Ratio (AR) with Heckman selection equation for households with positive net income. Robust standard errors in parentheses. Pseudo R^2 is Pearson correlation between predicted and observed Affordability Ratios.
***p<.01; **p<.05; *p<.10.

Charlotte-Mecklenburg County
Affordability Analysis
Frequency Probability Weights

Date: 11/8/2010
File: C:\Documents and Settings\mteodoro\My Documents\Red Oak\Projects\Charlotte 10\Analysis\[Char-Meck A

ANALYTICAL WEIGHTS

For use in calculating Affordability Ratios for Charlotte using CEX data. Data from 2006-2008 American Community Survey.

	Race weights	**Mecklenburg County**	**CEX Sample**		**Race Group Weights**			
	Race	**Percent**	**Frequency**	**Percent**	**Weight Value**	**Weighted Sample**	**Post-Weight Proportion**	*Proof (Should = 0)*
1	White	64.1%	5,670	82.0%	0.7816	4,431.9	64.1%	*0.0%*
2	Black	29.8%	824	11.9%	2.5005	2,060.4	29.8%	*0.0%*
3	American Indian	0.6%	31	0.4%	1.3382	41.5	0.6%	*0.0%*
4	Asian	4.1%	298	4.3%	0.9513	283.5	4.1%	*0.0%*
5	Pacific Islander	0.1%	18	0.3%	0.3457	6.2	0.1%	*0.0%*
6	Multi-racial / other	1.3%	73	1.1%	1.2313	89.9	1.3%	*0.0%*
	Total:	**100.0%**	**6,914**	**100.0%**		**6,913.3**	**100.0%**	***0.0%***

	Ethnicity weights	**Mecklenburg County**	**CEX Sample**		**Ethnic Group Weights**			
	Ethnicity	**Percent**	**Frequency**	**Percent**	**Weight Value**	**Weighted Sample**	**Post-Weight Proportion**	*Proof (Should = 0)*
1	Non-Hispanic/Latino	89.8%	6,042	87.4%	1.0276	6,208.8	89.8%	*0.0%*
2	Hispanic / Latino	10.2%	872	12.6%	0.8087	705.2	10.2%	*0.0%*
	Total:	**100.0%**	**6,914**	**100.0%**		**6,914.0**	**100.0%**	***0.0%***

	Senior citizen weight	**Mecklenburg County**	**CEX Sample**		**Size Group Weights**			
	Senior citizens	**Percent**	**Frequency**	**Percent**	**Weight Value**	**Weighted Sample**	**Post-Weight Proportion**	*Proof (Should = 0)*
1	Under 65 years old	91.8%	5,526	79.9%	1.1486	6,347.1	91.8%	*0.0%*
2	Age 65 and older	8.2%	1,388	20.1%	0.4085	566.9	8.2%	*0.0%*
	Total:	**100.0%**	**6,914**	**100.0%**		**6,914.0**	**100.0%**	***0.0%***

	Income weights	**Mecklenburg County**		**CEX Sample**		**Income Group Weights**			
	Income stratum*	**Frequency**	**Percent**	**Frequency**	**Percent**	**Weight Value**	**Weighted Sample**	**Post-Weight Proportion**	*Proof (Should = 0)*
1	<10,000	18,690	5.31%	580	8.4%	0.6330	367.1	5.3%	*0.0%*
2	10,000-14,999	13,586	3.86%	428	6.2%	0.6236	266.9	3.9%	*0.0%*
3	15,000-24,999	33,625	9.55%	825	11.9%	0.8006	660.5	9.6%	*0.0%*
4	25,000-34,999	36,557	10.39%	764	11.1%	0.9400	718.1	10.4%	*0.0%*
5	35,000-49,999	50,800	14.43%	1,011	14.6%	0.9871	997.9	14.4%	*0.0%*
6	50,000-74,999	68,737	19.53%	1,244	18.0%	1.0854	1,350.3	19.5%	*0.0%*
7	75,000-99,999	43,513	12.36%	774	11.2%	1.1044	854.8	12.4%	*0.0%*
8	100,000-149,000	47,101	13.38%	728	10.5%	1.2710	925.3	13.4%	*0.0%*
9	150,000-199,999	18,236	5.18%	227	3.3%	1.5781	358.2	5.2%	*0.0%*
10	>200,000	21,117	6.00%	333	4.8%	1.2457	414.8	6.0%	*0.0%*
	Total:	**351,962**	**100.00%**	**6,914**	**100.0%**		**6,914.0**	**100.0%**	***0.0%***

**Size groups defined by ACS report.*

	Marital Status Weight	**Mecklenburg County**		**CEX Sample**		**Marital Status Weights**			
	Marital status*	**Frequency**	**Percent**	**Frequency**	**Percent**	**Weight Value**	**Weighted Sample**	**Post-Weight Proportion**	*Proof (Should = 0)*
1	Married	334,293	50.0%	3,698	53.5%	0.9340	3,454.0	50.0%	*0.00%*
2	Widowed	30,586	4.6%	638	9.2%	0.4953	316.0	4.6%	*0.00%*
3	Divorced	67,625	10.1%	977	14.1%	0.7152	698.7	10.1%	*0.00%*
4	Separated	19,555	2.9%	183	2.6%	1.1041	202.0	2.9%	*0.00%*
5	Never married	217,099	32.4%	1,418	20.5%	1.5819	2,243.2	32.4%	*0.00%*
	Total:	**669,158**	**100.0%**	**6,914**	**100.0%**		**6,914.0**	**100.00%**	***0.00%***

**Values from ACS for Men and Women added for totals.*

- D R A F T -

MEMORANDUM

30 November 2010

To: John Mastracchio, Rick Giardina

From: Manny Teodoro

Re: Supplemental Analysis of 4th Alternative, Proposed Water & Sewer Rates, Charlotte-Mecklenburg Utilities

---

In reply to your email message of 29 November, I have analyzed the fourth rate alternative that you forwarded to me in that message. Here I summarize the results of this supplemental analysis; please see my draft memorandum of 8 November for full methodological details.

Rate structures. Initially, we analyzed the existing rates and three alternative rate structures; we have now added a fourth rate structure:

- *Alternative 1*, which adds a fixed charge based on meter size;
- *Alternative 2,* which lowers the sewer volume cap;
- *Alternative 3,* which adds a fixed charge, reduces the first tier volume rate, and lowers the sewer volume cap; and
- *Alternative 4,* which adds a fixed charge, reduces the first tier volume rate (but not as low as Alternative 3), and lowers the sewer volume cap.

Table S1 shows the estimated cost of basic water and sewer service for 3- and 6-person households under the existing rate structure and the three proposed alternatives. Full details on these proposed rate alternatives are available separately.

Table S1: Annual cost of basic water and sewer service under rate alternatives

Rate Structure	3-Person Household		6-Person Household	
	Cost	Difference from Existing	Cost	Difference from Existing
Existing	$478.16	N/A	$956.96	N/A
Alternative 1	501.20	+23.04	925.76	-31.20
Alternative 2	529.40	+51.24	1,014.68	+88.92
Alternative 3	482.96	+4.80	918.56	-96.12
Alternative 4	495.92	+17.76	989.60	+32.64

Estimates at 50gpcd for 30.67 days per month.

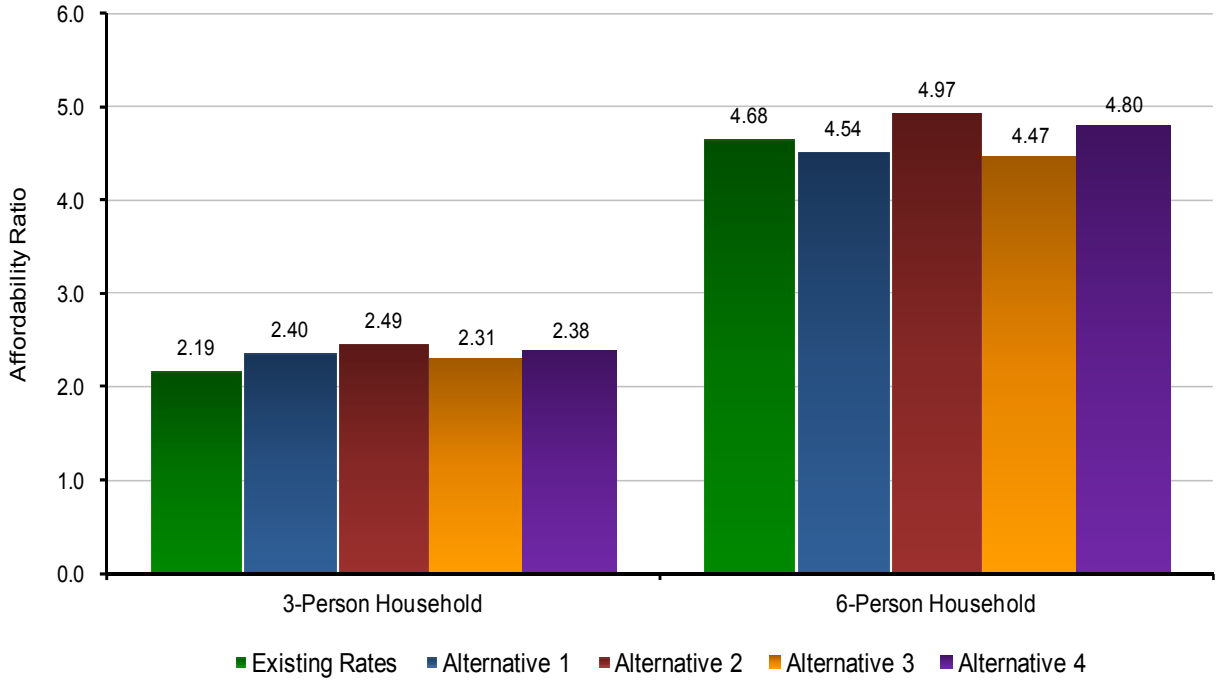
Supplemental results. Table S2 and Figure S1 summarize the results of our supplemental analysis. The substantive differences in affordability across the four rate structures remain modest. Full statistical modeling results are reported in Table S3.

Table S2: AR_{20} estimates under existing and alternative rate structures

Rate Structure	3-Person Household		6-Person Household		Log Income Coefficient
	Monthly W+S Charge	AR_{20}	Monthly W+S Charge	AR_{20}	
Existing Rates	$39.85	**2.19**	$79.75	**4.68**	-1.169
Alternative 1	41.77	**2.40**	77.15	**4.54**	-1.173
Alternative 2	44.12	**2.49**	84.56	**4.97**	-1.173
Alternative 3	40.25	**2.31**	76.55	**4.47**	-1.176
Alternative 4	41.33	**2.38**	82.47	**4.80**	-1.177

AR20 is the minimal water and sewer cost as a percentage of disposable income for a household at the 20th income percentile. Estimates based on demographically-weighted Heckman regression model of 2008 Consumer Expenditure Survey data, owner-occupied homes only. Family size and incomes are manipulated in these estimates; other variables are evaluated at their means.

Figure S1: AR_{20} estimates for 3- and 6-person households



Among the three rate alternatives analyzed here, *Alternative 3* remains the most attractive from an affordability perspective. *Alternative 3* has the mildest affordability impact on median households, and actually improves affordability for larger households. The affordability impacts of *Alternative 4* relative to the other alternatives are mild for smaller households, but larger households fare worse under *Alternative 4* than under *Alternative 2* and *3*. As always, whether these projected estimated differences in affordability across alternatives are significant enough to warrant acceptance or rejection of one or another alternative is a matter of policy judgment.

Table S3: Statistical models

Variable	Existing Rates	Alternative 4
Linear model		
Log income	-1.17***	-1.18***
	(0.01)	(0.01)
Log core expenses	0.15***	0.15***
	(0.01)	(0.01)
Family size (persons)	0.25***	0.23***
	(0.01)	(0.01)
Children in household	0.10***	0.08***
	(0.02)	(0.01)
Head of household >65 yrs old	-0.01	-0.01
	(0.01)	(0.01)
Nonwhite race	0.02*	0.02*
	(0.01)	(0.01)
Latino/Hispanic origin	0.04**	0.03**
	(0.02)	(0.02)
Married	0.15***	0.09***
	(0.01)	(0.01)
Intercept	10.53***	10.79***
	(0.07)	(0.06)
Selection model		
Children in household	-0.15	-0.02
	(0.25)	(0.18)
Head of household >65 yrs old	-0.17*	-0.16*
	(0.10)	(0.09)
Nonwhite race	-0.05	-0.08
	(0.09)	(0.10)
Latino/Hispanic origin	0.49	0.35
	(0.01)	(0.49)
Married	0.35*	0.26*
	(0.20)	(0.14)
Intercept	1.69***	1.62***
	(0.16)	(0.13)
Rho	0.92	0.88
	(0.04)	(0.04)
Selected N	4,520	4,520
Total N	4,606	4,606
Log pseudolikelihood	192.15	428.59
Pseudo R^2	.96	.97

Cells contain coefficients generated by linear models of logged Affordability Ratio (AR) with Heckman selection equation for households with positive net income. Robust standard errors in parentheses. Pseudo R^2 is Pearson correlation between predicted and observed Affordability Ratios.
***p<.01; **p<.05; *p<.10.

From: fred.bortner@wellsfaro.com [mailto:fred.bortner@wellsfaro.com]
Sent: Tuesday, September 07, 2010 10:07 AM
To: Coley, Cam; meg@magnoliamarketing.net
Subject: Rate Study Feedback Form

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Fred Bortner
- **Mailing/Billing Address**: 605 Heathermoor Court
- **City**: Charlotte
- **State**: NC
- **Zip**: 28209
- **Daytime Phone**: 704-590-0367
- **Email ***: fred.bortner@wellsfaro.com
- **Ask question or comment:**: From about 2007 to 2009 I had been paying $70-$90 per month when you were using the inaccurate transmitters. I paid about $35 per month before the transmiters. Now that the transmiter problem has apparently been fixed my monthly bill is about $45. You have been ripping me off for almost $1000 extra dollars. I know you won't give the money back but you are the worst utility I have ever dealt with personally and I have read about your abuses in the paper. I know I will not hear back anything about this e-mail if what they say about how you is true.

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: richard Flanagan
- **Mailing/Billing Address**: 6712 Nutcracker Place
- **City**: Charlotte
- **State**: NC

- **Zip**: 28212
- **Daytime Phone**: 704-532-5767
- **Email ***: rhfjr81@aol.com
- **Ask question or comment:**: Can you have ordinary citizens on these advisory groups?? Wht does it have to be an employee or corporate person from various busioness why can it not be Joe average from any house in Mecklenburg??

From: Gary Wilhite [mailto:gwil57@msn.com]
Sent: Friday, September 10, 2010 10:33 AM
To: Miller, Steve
Subject: Multifamily water rates

To: Charlotte Mecklenburg Utilities

-
- Re: Water Charges for Multi-family Townhomes
-
- I am a homeowner within the Summerlake Villas community. We are a group of 35 townhomes spread among 12 buildings. We have a master meter for our household water usage and a second master meter for our irrigation system. At our recent homeowner's association meeting, I learned that Charlotte-Mecklenburg Utilities computes our household water usage for determining our rate by dividing the total usage by the number of units served by the master meter. This seems very reasonable. However, I understand that the irrigation water usage for the same purpose is set based on the total, as if the entire irrigation system were serving a single home. This makes the usage appear quite high and puts us in the highest usage category. Our usage per home is computed to be 35 times higher than it actually is. We pay a penalty rate even though our usage per property is quite modest. Multifamily customers in this scheme are at a terrible disadvantage.
-
- **I request that you apply the same pro ration to our irrigation usage that you do to our household usage and recomputed our charges for 2010 based on this fair basis.**
-
- I understand you are also collecting input for a rate study. Please include these comments in that study.
-
- Thank you.
-
- Gary Wilhite
-
- 6604 Gaywind Dr.
- Charlotte, NC 28226
- 704-366-6541
- GWIL57@msn.com

From: FredDulaWMF@aol.com [FredDulaWMF@aol.com]
Sent: Friday, September 10, 2010 8:05 PM
To: Miller, Steve
Subject: Irrigation water rates @ Villas @ Summerlake

Mr. Miller

I am writing on behalf of the homeowners at Villas @ Summerlake. I have just recently gone off the board after serving as Secretary for 9 years. Mr. Rod Madsen, currently on the board as Treasurer and financial advisor, has been investigating our high water rates for several years. He has found that the City of Charlotte has been charging our Association double the water rate for irrigation usage, charging us as if we are one residence. As you are aware, we are a 35 unit complex (12 buildings) and have a rather large common area. Our lawns are watered by an extensive irrigation system. We have tried to conserve over the years, varying the watering schedules according to the amount of rain received during the watering seasons (late Spring, Summer, and Fall). We keep a very close eye on this irrigation system, always checking leaks, broken sprinkler heads, etc. Lynn Tankersley, who oversees our Landscaping committee, is extremely conscious about how many times the irrigation is set to run per week. He always cuts back when we are having sufficient rain.

I would hope that our "double rate" charges can be reset to the proper amount. In these tight economic times, it is sad that those of us who are trying to conserve are defeated by a problem which apparently has been existing for quite awhile.

Thanks for reading this and hope this problem can be resolved at the meeting on the 16th in our favor.

Sincerely,

Edith Dula
6614 Gaywind Drive
Charlotte NC 28226
704-661-6458 (cell)

From: Jim Perkins <jimperkins45@yahoo.com>
To: Miller, Steve
Cc: Rod Madsen <rkmadsen@bellsouth.net>
Sent: Wed Sep 15 14:17:17 2010
Subject: Multi-family Water Rates

To: Charlotte Mecklenburg Utilities

Re: Water Charges for Multi-family Townhomes

I live in a town home community called Summerlake Villas. We have 11 buildings with three town homes in each building and one building with 2 town homes for a total of 35 town homes.
We have a master meter for our household water usage and a second master meter for our irrigation system. However, for some reason our **household water usage** is determined by dividing the total usage by the number of units (35) served by the master meter while the **irrigation water usage** is based on serving a single entity resulting in our community having to pay the highest usage rate.
It does not seem right to me that we should be paying irrigation water usage rates based upon a single entity when, in fact, you are serving 35 homes! Our actual irrigation water usage per town home does not merit the huge penalty we are paying as a result of this unfair policy.

I understand from Mr. Madsen that Charlotte Mecklenburg Utilities is undertaking a study of this issue. Please include my comments in your study.
The bottom line is I request Summerlake Villas gets charged the fairer rate for irrigation water that is based upon 35 town homes rather than a single entity and our 2010 charges for irrigation be modified to reflect the lower rates we should be receiving.
Thanks You,

Jim Perkins
6529 Gaywind Dr.
Charlotte, NC 28226
(704) 365-4077
jimperkins45@yahoo.com

From: <srstutz@windstream.net>
Date: September 15, 2010 11:01:05 AM EDT
To: <ccoley@charlottenc.gov>, <meg@magnoliamarketing.net>
Subject: Rate Study Feedback Form

Rate Study Feedback Form

**See also letters below this feedback form that Mr. Ross Stutts sent to various City employees starting as early as 2006

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Ross Stutts
- **Mailing/Billing Address**: 419 Clairview Ln
- **City**: Matthews
- **State**: NC
- **Zip**: 28105
- **Daytime Phone**: 704-846-7011
- **Email ***: srstutz@windstream.net

- **What criteria is most important for Utilities to consider when evaluating existing and alternative rate structures?**: Fairness in charging for sewer usage. The cutoff for sewer usage charges is now 24 ccf (18,000 gallons). That means all irrigation users who do not have a separate irrigation meter pay for thousands of gallons of water that NEVER sees the sewer line. A more fair way would be to use a customer's non-irrigaion months (winter) to arrive at a fair monthly sewer rate. My winter sewer rate is about 22.00 per month. But during the irrigation season (and I use it moderately) I pay 62.00 +/- for sewer. I question if this is legal. I have written CMUD and the City Attorney and have received no answer.
- **How should the utility allocate the cost to customers for building water system capacity to meet summertime peak water demands?**: It appears the current water capacity is sufficient.
- **How should the cost of constructing facilities to serve new customers be paid for under the rate structure?**: These costs should be paid for, in part, by the company building the houses, plants, etc.
- **What costs should be recovered from the monthly fixed service charge vs. the usage rate?**: I don't understand the "fixed" service charge at all. If I'm out of town for a month and use NO water I should owe nothing.
- **How should Utilities address water and sewer rate affordability in its rate structure?**: Absolutely!! They currently do not. Take the promise last year during the "drought" - "these hikes are temporary" NOT!
- **What issues, concerns, suggestions do you have pertaining to the existing rate structure?**: I personally think CMUD is now making a profit. I don't think that's it's purpose. They should only charge enough to cover their expenses - no more.
-
- 419 Clairview Lane
- Matthews, NC 28105
-
- July 10, 2006
-
-
- City of Charlotte/Mecklenburg County
- Water Department
- 600 E. 4th Street
- Charlotte, NC 28250-0001
-
- To Whom It May Concern:
-
- I want to contest my water bill and the rates for which I am charged. I think the current rate structure is unfair to residential customers and especially unfair to those with irrigation systems.
-
- Apparently, commercial customers only pay $1.66 per ccf of water used. That's **19% less** than my rate of $2.04 when, apparently, my irrigation charges begin and **58% less** than my usage over 22 ccf. I try to conserve water but I also need to use my irrigation system to ensure a healthy lawn. Two weeks ago <u>during the heavy rains</u> I drove into

town on Randolph Road and observed several commercial irrigation systems spreading water on the already soaked grass. *That's wasteful!*

- *PLUS, I am billed a sewer charge for the water used by my irrigation system when NONE of it goes into the sewer.* ***A fair billing policy would be for me to be charged for sewer year-round for my average bill during non-watering months – October – March.***
- I've been told by CMUD that I could have an additional meter installed to record my irrigation usage but the *cost to me is $1000.00.* That too is ridiculous. Builders should be required to install an additional meter when an irrigation system is set up. I'm sure then the cost would be minimal and the irrigation usage could be billed at a fair rate not to include sewer.

Sincerely,

Edmond Ross Stutts
419 Clairview Lane
Matthews, NC 28105

cc: Mayor Lee Myers, Matthews NC

September 3, 2006

Charlotte-Mecklenburg Utilities
5100 Brookshire Blvd.
Charlotte NC 28206

Dear Sir/Madam:

I am, or course, a customer of Charlotte-Mecklenburg Utilities and have a few questions about your operation.

1. What state or federal agency, if any, regulates the Charlotte-Mecklenburg Utilities Dept.?

2. Who determines the rates charged customers of CMUD?

3. What, if any, appeals process is there for customers of CMUD?

4. Why have rates changed for customers who use larger quantities of water, i.e. have irrigation systems? When I was a customer in the late 90's, the higher water usage equaled a lesser charge per unit was charged. (I think the marker was over 18 ccfs).

- Thanks
- Edmond Ross Stutts

- July 21, 2007

- Mr. DeWitt F. (Mac) McCarley,
- City Attorney
- City of Charlotte
- 600 East Fourth St.
- Charlotte, N. C. 28202

- Dear Mr. McCarley:

- I'm writing in regard to my water/sewer/storm water bill and the legality of how some of the calculations are computed. I have complained to CMUD regarding the rates charged residential customers versus commercial and also how the charge for sewer use is calculated. The response I received was educational as an explanation of who determines "rate methodology" and "tiered pricing" and that CMUD is an "enterprise department" that operates from revenues they generate but my concerns were not addressed.

- My main concern, complaint and question of legality is *how the sewer charge is determined?* I am told sewer charges are based on the amount of water used by a customer. In many cases that makes perfect sense. But when the customer has an irrigation system and the sewer charge is based on water use during months (about five or six) the irrigation system is utilized the sewer charge for those months is **unreasonable and excessive**. *Here lies my question of legality.*

- I requested and received my CMUD bills for a recent period. For simplicity reasons I separated the bills into two six month periods although they don't exactly match "irrigation and non-irrigation months".

- I'm considering the bills dated 5/25/06 through 10/26/06 as my <u>irrigation</u> months. For these months my water charge averaged $27.53 with $45.59 for sewer. That's 165% of the water cost for my sewer fee.

- The other six month period is for bills dated 11/27/06 through 4/26/07 and is my <u>non-irrigation</u> months. For this period my water charge averaged $13.71 per month and sewer $27.63. *That's calculating a sewer fee of 201% of my water amount.*

- My average water bill was $13.82 more during the irrigation period. I used that water so I have no complaint about the additional expense. But, my average sewer charge was

$17.96 additional per month. *Although this is a nominal amount I dislike spending money for which I get no return.* Common sense will tell you that this additional water used for irrigation ***does not*** go into the sewer system so I question the legality of charging me as if it does. *If you multiply that by the number of CMUD customers who have irrigation systems (probably hundreds of thousands) the dollar figure is astronomical.*

- In the CMUD response letter I received it was explained that there is a "sewer cap of 18 ccfs for residential customers" so I presume that explains the difference in the 165% and 201% sewer calculation. I doubt there are many, if any, residential customers *without* irrigation systems who use over 18 ccfs! That's over 13,000 gallons of water. Since I try to conserve water *I only average 12,000 gallons (16.1 ccfs) per month during my irrigation period* so I rarely benefit from the 18 ccfs cap.
- In one of my phone conversations with a CMUD representative I was told, for a fee of $1000.00, I could have an additional meter installed to gauge the water just used for irrigation. It would take me over fifty-five months to recoup that charge. *That's obviously not a logical solution.*
- My proposals are simple – *maybe too much so.* Since we know my average sewer charge is $27.63 for my non-irrigation months, why not charge that *each* month rather than using the current method which appears to be between 166% and 201% of the water charge. A second proposal is to lower the sewer cap for residential customers to a more reasonable number.

Sincerely,
Ross Stutts

April 6, 2010

Mayor Anthony Foxx and
Members of Charlotte City Council
6101 East 4th Street
Charlotte, N. C. 28202

Dear Mayor Foxx and Members of Charlotte City Council:

Re: CMUD's Request for Rate Hike

Dear Honorable Sir/Madam:

- First of all, please excuse my not writing to you individually but I have pneumonia and expect my wife to pull me by the ear back to bed any minute. But I have some observations and/or complaints to make about CMUD and their proposed rate hike.

-
- I know that I am at a disadvantage because I do not live in Charlotte so I cannot choose who is on City Council based on your decisions and am forced to purchase my water from CMUD. And although I copied then Mayor Lee Myers with one of my CMUD complaints, I received no response from him. And also since he more or less selected his successor, I expect the status quo from my elected officials. *But I hope you will still read my concerns as I think they are valid.*
-
- A recent article by Mr. Steve Harrison of the Charlotte Observer reported the CMUD request for increases but just reported what was told to City Council and did, in no way, simplify the numbers so I could fully understand what the increase actually entailed.
-
- Due to the drought of 2007 CMUD asked for and was granted a "temporary" large increase in their rates as they are a "self supporting" department meaning to me, they operate on the profits of selling water to their customers. I question how much research and thought went into this "temporary" increase as they **now** say that they cannot continue to operate with the "temporary" increase, *that has now become permanent*, but also want another one.
-
- Why? Did they not envision after a voluntary, then and mandatory, irrigation regulation that they would be selling less water? Or did they just consider that if that increase wasn't enough, they could just ask and receive permission for another a year later?
-
- If my information is correct we are now above that average rainfall with no drought predicted for the near future. So we can, for the present, eliminate drought restrictions as a reason for a rate increase.
-
- An additional, and more costly, complaint is how CMUD calculates their "sewer" charge. This charge, for some reason, never seems to be mentioned when asking for a rate increase although it **makes up the vast majority of the "water bill".** I think it's not mentioned to delay "sticker shock". Reminds me of buying a car! On the lot the sticker says X but when you get in the salesman's cubicle it's suddenly Z.
-
- During my last 2 months of bills (non-irrigation periods) they average $8.39 for water (average 4.5 ccfs), $4.63 for storm water runoff and ***$ 19.57 for sewer***. The sewer fee equates to **233% of my water bill** that *actually* went into the sewer system.
-
- In Mr. Harrison article, he quotes CMUD as saying a customer's bill, who used 8 ccfs of water, would now be $ 47.96 and would only increase to $ 51.20. *Doesn't sound like much, does it?* **But factor in the sewer fee and the real cost is $ 111.74 + runoff fees now and $119.29 + runoffs after the increase** provided, of course, CMUD only charged the average of 233% for the sewer fee.
-
- I now pay my bills on-line and only have access to a couple of months of bills but in the past have compared up to 12 months and the **range of sewer was from 165% to 250%** so that also raises a question. *Exactly how do they determine the sewer fees?* Does

CMUD not have a monthly multiplier or does it change from month to month? It certainly seems to!

-
- During the irrigation months I get billed for the same 233% +/- for water that does not go into the sewer system. It goes only onto my lawn. And I set my system so it does not deposit so much water that some of it runs off into a nearby creek. I'm aware that CMUD has a cap on when they stop billing for sewer water they ***know is not going into my sewer pipes*** but it is ridiculously high. If I remember correctly it's 18 ccfs – that's over 13,000 gallons of water. **But only 6,358 gallons actually goes through my sewer pipes.**
-
- I have no idea how this 233% +/- amount was determined. Is it a mathematical equation or one based realistically on how much it costs to treat the water, etc. in the sewer? I've asked but have received no answer from CMUD. I assume this money is "pure on-the-top profit". What else could it be?
-
- I also question that if it's not an accepted mathematical calculation or an actual sewer treatment cost, how legal is it? *And especially since CMUD knows that during the* ***non-irrigation season I only use 4 – 5 ccfs of water*** *and charge my sewer bill accordingly,* ***so why do I have to pay for the increased sewer ccfs used on my lawn during the irrigation months when only an average of 4.5 ccfs actually sees the sewer pipe?***
-
- Please do not misunderstand me. I'm more than willing to pay my fair share in taxes and water but don't want to be fleeced for either.
-
- Sincerely,
- Ross Stutts cc: Mr. Steve Harrison

Rate Study Feedback Form

Thu 9/16/2010 6:21 PM

Please complete the following information:

Note: * indicates required fields for submitting the request

* url: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
* Name*: Caleb Lam
* Mailing/Billing Address:
* City:

*	State:
*	Zip:
*	Daytime Phone:
*	Email *: cllam@bellsouth.net
*	What criteria is most important for Utilities to consider when evaluating existing and alternative rate structures?:
*	How should the utility allocate the cost to customers for building water system capacity to meet summertime peak water demands?:
*	How should the cost of constructing facilities to serve new customers be paid for under the rate structure?:
*	What costs should be recovered from the monthly fixed service charge vs. the usage rate?:
*	How should Utilities address water and sewer rate affordability in its rate structure?:
*	What issues, concerns, suggestions do you have pertaining to the existing rate structure?: For multi-family house water billing, water usage is adjusted for the number of units served before calculating the rate. This is only common sense, since the goal is to reflect usage per household, not per meter. However, the same common sense has not been applied to irrigation use for multi-family customers. Irrigation bills are currently calculated by total usage, rather than per household. Under the current system, multi-family customers are being penalized for using less irrigation water per household than an average single detached house. For example, there are 102 families in my condo community, living on approximately 5 acres. The same 102 families in single detached houses would take up roughly 25 acres of irrigable land, assuming a quarter acre per house. So each of our families are using approximately 1/5th of the irrigation water needed for an average single detached house. Yet we are being charged $5.32 per ccf after the first 16 ccf used. My proposal is this: calculate irrigation water usage for multi-family complexes the same as standard water billing. Divide the total cubic feet of water used each month by the number of units before calculating the rates. The irrigation rate would be the same as for single detached houses - $2.69 for the first 16 ccf, and $5.32 per ccf beyond the first 16 ccf used, after being adjusted for number of units.

Monday, September 20, 2010

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Jim and Linda Roberts

- **Mailing/Billing Address**: 10637 Pentreath Lane
- **City**: Charlotte
- **State**: NC
- **Zip**: 28210
- **Daytime Phone**: 704-542-6105
- **Email ***: momof3gals@carolina.rr.com
- **What criteria is most important for Utilities to consider when evaluating existing and alternative rate structures?**: Water availability for essential services. When water availability is plentiful, punitive rates should not be applied. Rates were raised during drought of 2008 to reduce consumption. Then rates were raised again when water was plentiful because customers were not using as much water. The logic of the second rate increase is not clear.
- **How should the utility allocate the cost to customers for building water system capacity to meet summertime peak water demands?**: A reasonable tiered rate structure is appropriate.
- **How should the cost of constructing facilities to serve new customers be paid for under the rate structure?**: Sell bonds and repay them through increased revenue from the new customers.
- **What costs should be recovered from the monthly fixed service charge vs. the usage rate?**:
- **How should Utilities address water and sewer rate affordability in its rate structure?**: The Tier 4 rate should be eliminated. That rate is punitive especially during long periods without rain when the water supply is adequate. Revenue should be be compared to the prudent costs of providing services.
- **What issues, concerns, suggestions do you have pertaining to the existing rate structure?**: Rates are too expensive even when the owner of the property is consciously conservative in the use of irrigation system to keep shrubbery alive.

Received: 9.22.10

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Joe Willingham
- **Mailing/Billing Address**: 3840 Colebrook Road
- **City**: Charlotte
- **State**: NC
- **Zip**: 28215-3244
- **Daytime Phone**: 704-568-7097

- **Email ***: joewillie@bellsouth.net
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: The actual use of gallons instead of volumetric usage. Don't penalize the customer for following the suggestions made to conserve water during a "drought" and then turn around and make them pay more because you didn't make enough money because the customer didn't use as much water!!!!
- **Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**: They should be recovered through fixed fees.
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: Bonds/profits
- **What should be included in the monthly fixed service charge vs. the usage rate?**:
- **How should Utilities address water and sewer rate affordability in its rate structure?**: Only charge for what is actually used instead of a unit(748 gallons) Put all fees and charges in one category
- **What issues, concerns, suggestions do you have about the existing rate structure?**: I would like to see and get billed for actual gallons used instead of an estimated figure I don't like the idea of paying for a portion of a Ccf unit(I don't think we should have to pay for a whole 748 gallons when we only use maybe 100 gallons the next unit).

-----Original Message-----
From: wostowell@earthlink.net [mailto:wostowell@earthlink.net]
Sent: Wednesday, September 29, 2010 4:48 PM
To: ccoley@charlottenc.gov; meg@magnoliamarketing.net
Subject: Rate Study Feedback Form

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

* url: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
* Name*: Walter O. Stowell
* Mailing/Billing Address: 9917 Pallisers Terrace

* City: Charlotte
* State: NC
* Zip: 28210
* Daytime Phone: 704-544-7676
* Email *: wostowell@earthlink.net
* What factors are most important for Utilities to consider about existing and alternative rate structures?:

Rates increased from 2007 to 2009 for the combined water, sewer, and storm water by approximately 53% including the 15% during the drought with no reduction following the drought restrictions. Corporate rates are apparently cheaper for water than residential rates for no apparent reason. Current approach to reducing water usage results in ever increasing rates.

* Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?:

Costs should be borne by city taxes and developer fees for new infrastructure since the current customers receive NO benefit from annexation and new areas. Cost of replacing old infrastructure should be spread across the spectrum of rate payers based on total annual usage (volumetric)and in addition to fixed fees fixed fees

* How should the cost of building facilities to serve new customers be paid for under the rate structure?:

If the demand for new facilities is due to city annexations or newly building areas, the city and the developers should share the cost since they stand to benefit and not the current rate paying customers who gain nothing from the additional facilities.

* What should be included in the monthly fixed service charge vs. the usage rate?:

This question is confusing to me and needs explanation in order for me to answer it.

* How should Utilities address water and sewer rate affordability in its rate structure?:

It must explain why it had to raise its rates by 53% in two years. It must insist that the city and developers pay their "fair" share to adding infrastructure. It must explain why maintenance, infrastructure, and operational costs have risen so quickly. It must explain what it has done to resolve problems of billing and unexplained high usage bills. It must be more responsive to its customers when they call or write to the department. It must explain the necessary conservation efforts and why it is more costly. It must start to educate customers about changing types of grass, and other vegetation that require less water usage. This question appears to assume affordability and until the question of conservation, fair share by the city tax base and developers, and explanation by CMU management

to explain its organization/management costs, the rate structure cannot address affordability. At this time the answer is always, rise the rates for the current customers to pay for everything, no matter who benefits.

* What issues, concerns, suggestions do you have about the existing rate structure?:

I do not believe that CMU has proven its case for the large increases in the past three years. I believe the customers who pay the bills have a right to know what the material, personnel, facilities, equipment, and operational cost are now and why the have increased so dramatically.

Additional feedback that Mr. Stowell sent to Steve Miller via email on October 6, 2010 is below:

It appears to me that this fee currently has a minimal charge for the cost of billing or whatever its use, but the major revenue comes from a very aggressive progressive rate structure whose goal is unclear. If it is a conservation measure, then I have some appreciation for its intent. However, it very much appears that its intent is to cause a reasonably average homeowner to pay for a larger portion of the water/sewer system operation without regard for the fact that all customers, including developers, commercial users and lower use customers benefit from the maintenance and services paid for by moderate use homeowners. I believe a more balanced and less aggressive progressive rate system ought to be considered. In other words, I would like to see a rate system that might be fairer to a greater number of customers.

The citizen who sent the comment below also spoke at North 2 Public Meeting

From: rboettner [mailto:rboettner@bellsouth.net]
Sent: Friday, October 01, 2010 5:07 PM
To: Miller, Steve
Subject: Remarks on bills and water rates

Mr. Miller:

Here are my comments as promised.

1. The issue regarding the modified rate structure, as part of the "normalization" process for meter reading time frames other than 30 days, is that the methodology is flawed and inaccurately captures higher tiered rates that would not normally be seen at the standard 30 day interval. This a one of the problems with an upwardly graduated rate tier structure.

The only way to accurately use a modified system like yours is to modify the consumption levels fractionally for each read interval. For example, if the read interval is 35 days, the consumption interval should be 4.7 ccf between tiers. At 36 days, it should be 4.85 ccf between tiers, and so on. This method, of course, is practicably unusable, horribly complex and confusing to customers and your staff.

The only fair and easy way to modify such bills to ESTMATE the consumption for the 30 day period based on the average daily use for the read interval period. For example, if the the read interval is 40 days and the consumption is 20 ccf, then the average daily use is 0.5 ccf per day. For the normalized 30 day period the estimated comsumption is 30days X 0.5 ccf/day, or 15 ccf, which would become the estimated consumption for the normal 30 day period, and the customer would be billed on that estimated consumption. When the meter is read 20 days later (or 60 days after the earlier timely reading), the reading interval will be be on track and will enable an accurate reading of consumption and be accurately billed by using the value from the estimated reading as the starting point for the bill. Although you do not have a true reading for the 30 day read interval, you really have no way to determine when consumption took place. You can only assume that consumption was evenly distributed over the interval read period. This approach should be used no matter what the rate sturcture used.

I suggest doing a side by side comparison of your normalization methodology and my suggested strategy for extended read intervals from 31 days to 45 days, and you can see that your methodology overcharges customers.

Suggestions for new residential rate structures and billing:

2. Go to Quraterly billing. Most water and sewers systems use this billing interval. Doing so would reduce your meter reading costs and your billing costs. You might save as much as 60% over your system, and your staff billing and meter reading staff could be used for new tasks in the non billing months. Customer service complaints would also be reduced. Customers might be shocked at the size of the first few bills, but once they realize they are billed every 3 months there should be no problems. It is also unlikely your payment delinquency rates will change as other utility companies have used this approach and they wouldn't have if it caused such problems.

3. Go to a two tier water rate system. One tier would be true water costs (just like your one tier sewer costs)and the second tier would be you water "conservation tier" that would charge at a higher rate for water used mostly outdoors. I would also recommend that the second tier not kick in until the customer used 30% more water than the winter quarter use, or 8 ccfs, whichever is higher (this assumes a quarterly read interval). This would give the customer a little slack and may keep comsumption down as customers would use less water to keep charges for water within the first tier rate.

4. Charge your sewer costs based on winter quarter use when little on no water is used outdoors. This would give you a customer's true sewer costs based on water consumption. This sewer cost would be the customers quarterly sewer charge for the the next 12 months until the next winter quarter. If a customer used less water than the previous winter quarter in any subsequent quarter, then the customer should have his sewer rate reduced. In other words, the winter quarter sewer charge is the maximum sewer charge for the twelve following months. This method would eliminate the need for linking sewer charges to water consumption at every billing and read interval. The reason this works is because sewage treatment volumes do not change from month to month except for the change in the number of customers. The daily and monthly consumption rates per customer are very steady over time. People really don't change their water and sewer use habits due to high utility of water and sewer needs.

Because in the past you have been charging sewer for sewer service not performed, you may have to increase your sewer rate to provide enough revenue to cover true sewer costs. This might be a problem for people that don't use water outdoors, but you won't be charging people for "phantom" sewer service anymore. Customers will now be charged only for sewer service performed, which is the way it should be done. This phamtom sewer charge in reality is a water use surcharge and should be eliminated.

Please feel free to contact me to discuss these remarks. Thank you for for time and I hope you can see the value of using these recommendations.

Robert Boettner

704-896-0146

Mr. Greene,
Thank you for your input. I'm copying our Utilities staff who will be sure your comments are captured during this public engagement period. Also, if you want the latest information about the study and upcoming meetings, which we hope you will attend that information is available at www.cmutilities.com.

Kim McMillan
Director, Corporate Communications

From: Richard Greene [mailto:rkgreene66@gmail.com]
Sent: Sunday, October 03, 2010 7:58 AM
To: McMillan, Kimberly A.
Subject: Rate Structure Comment

Dear Ms. McMillan

I approve of the progressive rate structure for water.

However, the cap on sewerage charge should be at 9 to12ccf instead of 24ccf.

Usually we use 5ccf for our household with a sewer bill of about $20.

Last month was dry, so we watered the shrubs and grass and used 19ccf, which raised the sewer bill to $84.

But we did not flush anymore than usual. The extra water went to the garden, not the sewer.

The patient people at the water department informed me that It would cost $1000 or $2000 to install a separate irrigation meter so that is not a reasonable option.

Thanks for receiving my input.

Rich Greene

#178327-75681
1217 Braeburn Rd
CLT 28211
704-367-1895

10.5.10

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Jim Talbot
- **Mailing/Billing Address**: 2323 Coley View Court
- **City**: Charlotte
- **State**: NC
- **Zip**: 28226
- **Daytime Phone**: 704 365 3307
- **Email ***: jrt12@earthlink.net
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: Fairness to individual homeowners. Graduated rate structure that encourages conservation. Where multiple users are on the same irrigation meter, the rate should be based on an average volume per house, not on the rate for a "single wasteful user".
- **Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**: Combination
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: Combination of fixed fees and volumetric charges
- **What should be included in the monthly fixed service charge vs. the usage rate?**: The fixed costs of the utility. Any variable costs of the Utility that are dependant on water usage (such as the cost of water)should be paid for by the usage rate. I don't know what other variable costs there are but perhaps some salaries and wages are dependant on how much total water the utility provides.
- **How should Utilities address water and sewer rate affordability in its rate structure?**: Affordability should not enter into rate structure considerations.
- **What issues, concerns, suggestions do you have about the existing rate structure?**: As mentioned above, my neighborhood has nine houses on a single irrigation meter. Each house uses less that 16ccf's per month and would qualify for the $2.69 rate. However when they are combined into one bill, most of the monthly usage is charged at the higher $5.32 rate. This is a different method that if all the houses were on the same regular utility meter for use inside their homes. I does not seem fair to penalize individuals for their "moderate usage" by combining them with others on the same meter to make is seem like we are "single wasteful user". Our water bills are approximately 100% higher than they should be as a result of this practice.

From: musicmist2003@yahoo.com [mailto:musicmist2003@yahoo.com]
Sent: Monday, October 11, 2010 12:17 AM
To: ccoley@charlottenc.gov; meg@magnoliamarketing.net
Subject: Rate Study Feedback Form

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Doreen Byrd
- **Mailing/Billing Address**: 5512 Elsinore Place
- **City**: Charlotte
- **State**: NC
- **Zip**: 28227-2633
- **Daytime Phone**: 704-575-1273
- **Email ***: musicmist2003@yahoo.com
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: fairness
- **Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**: fixed fees for repairs and upgrades to the existing infrastructure. If expansions to the system is required because of new development, the developers should absorb that cost through special fees to them, based on expected impact.
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: Impact fees charged to developers.
- **What should be included in the monthly fixed service charge vs. the usage rate?**: Basing the storm water fee upon impervious surface area makes sense. It should be possible to calculate the average annual cost of infrastructure maintenance and spread that cost evenly across households. Businesses should pay higher fees that vary depending upon how heavily they create stresses on the system (e.g. restaurants more than similar-sized clothing stores, but less than a business with lots of employees or those that use a lot of water in their daily operation, etc.). The administrative and personnel costs can also be included in those fixed fees.
- **How should Utilities address water and sewer rate affordability in its rate structure?**: It was a definite slap in the face when water rates were raised because the conservation efforts of responsible citizens resulted in less water usage. Using a flat fee for sewer service that is not directly indexed to the volume of water used would prevent the seasonal shocks such as having a July water bill for $39.84 followed by an August

bill for $95.67. This is especially painful when I know that the extra water was used for outdoor plants (not lawn by the way)and not water that entered the sewer system.

- **What issues, concerns, suggestions do you have about the existing rate structure?**: The biggest problem that I have with the current system is the way the sewer charge is indexed to water usage. I am a gardener and during hot, dry weather I use more water to keep my vegetables and container plants healthy. When it gets really dry I also occasionally water my shrubs and shallow-rooted trees like the Dogwoods. This water is not going into the sewer system, yet my sewer charge goes up dramatically. It should be fairly obvious that water usage that spikes during the summer months is not because folks suddenly decide to take four showers every day. Sweaty bodies and kids out of school will increase usage in some households, but that increase would be fairly flat. It should also be possible to identify any swimming pools that may be discharging into the sewer system. I don't mind paying for the water that I use, but I don't want to pay extra sewer fees when my water usage has no impact on the sewer system. I would suggest a flat sewer fee based on the lowest 8 months of water usage. That would factor out the increases due to seasonal outdoor water use. The months that would be averaged include holiday periods and some school breaks, so it would capture some of the smaller increases in water use that is likely to be flowing through the sewer system.

From: kevinpfannes@mac.com [mailto:kevinpfannes@mac.com]
Sent: Wednesday, October 13, 2010 10:58 AM
To: ccoley@charlottenc.gov; meg@magnoliamarketing.net
Subject: Rate Study Feedback Form

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Kevin Pfannes
- **Mailing/Billing Address**: 909 West Hill Street
- **City**: Charlotte
- **State**: NC
- **Zip**: 28208
- **Daytime Phone**:
- **Email ***: kevinpfannes@mac.com

- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: One group of customers should not be overcharged to subsidize another group of customers.
- **Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**: Volumetric charges.
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: New customers should not be charged punitive fees. If service not currently available, the new customer should only be charged reasonable cost of bringing lines to property, with part of those costs recovered if other property owners tap into the new line.
- **What should be included in the monthly fixed service charge vs. the usage rate?**: Fixed charges penalize low usage and conservation. For example, our HOA pays fixed fees for an irrigation system we never use.We paid to build the system. The cost of carrying the account by the utility is minimal. Why charge us a fixed monthly fee?
- **How should Utilities address water and sewer rate affordability in its rate structure?**:
- **What issues, concerns, suggestions do you have about the existing rate structure?**: Don't charge us storm water charges if the sewers do not work!

From: j.alexander99@yahoo.com [mailto:j.alexander99@yahoo.com]
Sent: Wednesday, October 20, 2010 7:42 AM
To: ccoley@charlottenc.gov; meg@magnoliamarketing.net
Subject: Rate Study Feedback Form

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Jay Alexander
- **Mailing/Billing Address**:
- **City**: Charlotte
- **State**: NC
- **Zip**: 28226
- **Daytime Phone**:
- **Email ***: j.alexander99@yahoo.com

- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: Normal home usage for the family size. Two people should not pay the same as a family of six!! We obviously do NOT use as much water!
- **Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**: That should have been built into the system from the start! Anything mechanical will have breakdowns and failures; this should not be a surprise!
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: It should be assessed to the potential new occupants; you can't continue to go back to people who have fixed incomes and keep raising their fees when they are NOT using more water and all their other costs have incresaed.
- **What should be included in the monthly fixed service charge vs. the usage rate?**: I think there should be a fixed sewage charge; it should not increase with the volume of water used. When I water my lawn; there is NO toilet flushing involved and NOTHING going through my sewer system!!
- **How should Utilities address water and sewer rate affordability in its rate structure?**: Everyone needs to concentrate on CONSERVATION and water management. We have all gone into public facilities that are not working properly; continually flushing or running while no one is there. A terrible, terrible waste of precious water!
- **What issues, concerns, suggestions do you have about the existing rate structure?**: I am retired; my wife and I conserved water every way we possible can. We have used rain barrels(I have 3) for years to water our flowers around the house. We have cut back on the lawn watering to preserve the shrubs and trees; the grass is GONE! We are being penalized for our efforts. With ever increasing utilities and taxes; we will have to move out of Mecklenburg County. We cannot afford to live here anymore.

October 21, 2010

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: B. Scott
- **Mailing/Billing Address**: 16212 Walcot Ln
- **City**: Cornelius
- **State**: NC
- **Zip**: 28031
- **Daytime Phone**:
- **Email ***: barb632@gmail.com

- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: 1) Making sure heavy users of water are charged accordingly. I wonder if the heavy users are residential - I think not, yet I think (maybe incorrectly) that residential users are actually subsidizing commercial/industrial users. 2) Rate structures should be straight forward, easy to understand and easy to explain. This is not the case currently. 3) Users should be confident that rates are fair, and are applied in a correct way. This, also, is not perceived to be the case at present. 4) Bills should be correct. It is not okay to have any errors - 99.5% accuracy is not okay - there should be no acceptance of any errors. This is what your consumer of water expects.
- **Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**: There are too many 'fixed fees' in your system already. A portion of your operating revenues, in the form of payment for use, should be set aside for capital needs. One time fees should absolutely be avoided - once a fee is in place, it never seems to go away, in fact, it seems to just get larger over time (ie. the storm water fee). CMUD should have the discipline to plan for capital needs expenditures and reserve a portion of the operating income to cover the needs. This takes discipline, and a committment to the effort.
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: For commercial or industrial use, if the facilities are outside the normal provision of average water and sewer lines, the cost of providing the new service should be shared with the developer or owner of the proposed business. For residential use, CMUD should have the discipline to reserve a portion of operating revenues to provide for future growth (including population growth).
- **What should be included in the monthly fixed service charge vs. the usage rate?**: There are too many add-ons at present. What is the monthly service charge for? Creating bills, mailing them out, staffing to support the effort are all costs of doing business. These should be covered by usage charges. Monthly service charges, to me, are a cop out. It indicates a lack of attention to your business model.
- **How should Utilities address water and sewer rate affordability in its rate structure?**: Affordability for who? Commercial/industrial? Residential? I assume your question refers to residential customers. Heavy residential users of water, for irrigation purposes especially, should pay a premium for use of water over an average, expected usage. This average, expected usage level should be determined by a review of customer use AS WELL AS consultation with landscapers and lawn experts who are well versed in the need of watering lawns. I know my neighbors over water their lawns, they should pay more for this. People who are conscientious should not be subsidizing others. Having said that, it seems to me the current rate structure penalizes people who are very careful and allows people who overwater a break.
- **What issues, concerns, suggestions do you have about the existing rate structure?**: I am most familiar with residential rate structure. 1) usage rates should include the whole cost of providing your water service - this .08 cents a day is not a fair charge. 2) your bills are sloppy in terms of information provided to users (I have called in the past about misrepresentations, and they have been fixed) 3) an acceptable range of 29-34 days for billing is not right. All that does is increase your revenues inappropriately. If meter readers cannot read meters in the rain, there is a real problem with your business process 4) as a result of the varying time included in your billing cycles, your graph showing

water usage for 13 months is worthless. none of the time periods is the same, so how can a comparison be made? One thing I know is over the last 15 years, we have not changed our habits when it comes to water usage, we have not added people to our household, but in spite of this, the cost for our water has increased at least threefold. I suspect we are being charged sewer charges for our irrigation use (even though we have a seperate meter), and storm water fees have just become part of our bill - don't see how this related to CMUD's mission - I thought the Storm water function was part of the County. In the end, I suspect the rate structure is not really a true reflection of the cost to deliver water to me, but rather rates are manipulated to provide a certain amount to CMUD to cover a budget that may or may not be developed and/or managed in a responsible way. In reality, I am not in control of what I pay for water. I can try to conserve, but that hurts me in the end - the rates will just go up to cover an 'unexpected shortfall'. And, customers who have legitimate questions about their bills should not be treated as a nuisance and threatened with water turn off. You have a monopoly in providing water services, and you have been throwing your weight around. This is on the backs of the individual residential customer as commercial/industrial users have more resources to command your courteous attention.

From: JKERNES@carolina.rr.com [mailto:JKERNES@carolina.rr.com]
Sent: Tuesday, October 26, 2010 11:23 PM
To: ccoley@charlottenc.gov; meg@magnoliamarketing.net
Subject: Rate Study Feedback Form

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Norma Kerns
- **Mailing/Billing Address**: 4527 Whispering Oaks Drive
- **City**: Charlotte
- **State**: NC
- **Zip**: 28213
- **Daytime Phone**: 7045130751
- **Email ***: JKERNES@carolina.rr.com
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: The cost of sewer service is extremely high. What is the

justification for basing sewer rates on water usage? My water bill of $15.00 turns into $55.00 or more after sewer is added, this does not count storm water fees.

- **Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**: I don't believe it is fair to attempt to expand infrastructure through water usage fees at all. Maybe another methodology needs to be explored, such as bonds, general revenue or CMUD revenue.
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**:
- **What should be included in the monthly fixed service charge vs. the usage rate?**:
- **How should Utilities address water and sewer rate affordability in its rate structure?**: The rate structure is ridiculous. There should be two tiers, not four. Our bill is $15.00 and we are in the second tier.
- **What issues, concerns, suggestions do you have about the existing rate structure?**: Our property was annexed into the City about 4 years ago. If I had known what sewer costs would be I would still be using the septic system that worked without problems.

From: whipccc@hotmail.com [mailto:whipccc@hotmail.com]
Sent: Monday, October 25, 2010 3:48 PM
To: ccoley@charlottenc.gov; meg@magnoliamarketing.net
Subject: Rate Study Feedback Form

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: susan williams
- **Mailing/Billing Address**: 9323 sardis forest drive
- **City**: charlotte
- **State**: nc
- **Zip**: 28270
- **Daytime Phone**: 704-905-8259
- **Email ***: whipccc@hotmail.com
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: the use rate and the collection rate should not go together. most usage is for lawns which is absorbed into the ground-not run-off
- **Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**: volumetric charges & taxes

- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: taxes
- **What should be included in the monthly fixed service charge vs. the usage rate?**:
- **How should Utilities address water and sewer rate affordability in its rate structure?**: usage and collection rates should be rated as the similar
- **What issues, concerns, suggestions do you have about the existing rate structure?**: they just seem to continue to go up but without explanation. Please explain increased rates

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October 25, 2010

To: Rate Study Stakeholder Advisory Group

From: Michael Rains, Charlotte Citizen

Subject: CMUD Rate Study Questions/Comments

Please accept my apology for being late to submit this as well as my lack of involvement to date. Personal/family issues have prevented me from participating up to this point in time

It may be helpful for you to know my personal beliefs on larger issues as they may relate to this matter:

1) Due to climate change, I believe our region is going to suffer from more frequent periods of droughts, some severe. Water conversation is going to become even more important and no user group should be exempt from conservation-based rate structures.

2) Our economy is NOT in a recession (as government leaders like to call it). We have suffered a structural decline that was the result of the huge outsourcing of American jobs over the past several decades as well as the tremendous increase of efficiency fostered by technology. This decline was DELAYED by a stock market and then residential/commercial real estate bubble that was government endorsed in an attempt to create a substitution for the loss of wealth creation (manufacturing) in our country. This great experiment in development and growth is nearing an end. High growth rates in Charlotte will not return. As a result, I believe much less focus will be needed on capacity increase and more on aging infrastructure replacement.

3) CMUD will have the unenviable task of promoting (perhaps even demanding) increased water conservation in the future, while at the same time increasing the cost of CCF produced/consumed just to maintain the system. As a result great transparency

with rate equity will be critical. Where differences exist, greater attempts at explanation should be provided.

Here are my questions/comments/concerns relative to water/sewer rate structuring.

1) **Commercial** rate comparisons (with other regional utilities) do not seem to be posted similar to **Residential** rate comparisons (same with other categories). Are these comparisons available? If not, why not? If so, why are they not presented?

2) A breakdown of % of total revenue received from each rate category versus % ccf consumed by the same category is critical to better understand equity concerns (real or imagined). This information is not readily discoverable on CMUD's website. This information would bring clarity to the question of whether residential water usage is subsidizing commercial/industrial or vice-versa. Or perhaps it would show no real difference in revenue/consumption for each category.

3) While the **Commercial** category pays a combined rate (with no caps on sewage use like **Residential**), there are no conservation incentives for water usage. Clearly this would be more difficult to structure since different businesses use vastly different amount of water. However, it seems plausible that commercial usage categories could be established and within those categories, some level of rate tier established.

4) In the **Master Meter/Multi-Family** rate structure, sewer usage fees are capped at 11ccf water usage (per unit). **Residential** (single family) sewer fees are not capped until 24 ccf water usage.

It is assumed that these sewer usage caps are in place to acknowledge less probability of sewage impact at higher usage rates because of irrigation or an on-site leak

Currently, the 24 ccf cap for **Residential** is 8 ccf over the 16 ccf usage tier of which 95% of all residential customers fall.

The Master Meter sewage cap should also be at least set 8 ccf over the 95% usage tier of those in this type of housing. Perhaps this is how 11 ccf was determined; if so, documentation would be desirable.

It should also be pointed out that **IF** multi-family/unit water usage is significantly less, on average, than single family residences, additional water consumed for irrigation would be purchased at a much lower water rate. If this conjecture is valid, the sewage cap rage for Master Meter may need to be raised further in an effort to be equitable on the issue of water used for irrigation between single family and multifamily.

5) This is more a point of presentation fairness than a question.
In the **Guide to Utilities Budget and Water/Sewer Rates** (updated June 11, 2010), justification was provided for increasing the fixed water and sewer charges by $.02/day and increasing the sewage volume charge to meet increased budget demands.

In the Monthly Impact of Rate Increase chart (page 3), Residential and Multifamily categories were combined, instead of presented separately. Combining these would likely have resulted in understating the impact to Residential since the fixed charge increases are more significant for that user class.

Also, in the Amount of Increase column, like units of comparison should always be presented. Since **Commercial** can only be presented in an average percentage form, the **Residential and Multifamily** increases should also include a percentage increase (in addition to dollar increase). Were that done, the lowest use **Residential** increase would have shown 9.6%.

In general, when rate impacts are presented, the rate classes should stay separated so citizens can see the effect on each.

I look forward to discussion of these questions and concerns.
Thank you for your efforts on this important project.

10/27/10

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Jacklyn Bray
- **Mailing/Billing Address**: 3918 Glenville Ave
- **City**:
- **State**:
- **Zip**:
- **Daytime Phone**:
- **Email ***: lylahoney@yahoo.com
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: Alternative Rate Structures can negativly impact large families with small children. People can go to the carwash to avoid high bills, they can use rain barrels or just not water their landscaping, but you really can't minimize laundry usage with lots of dirty kids, and the alternative rate stucture would penalize families. Regular rate structures are more fair.

- **Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**: Commercial usage with lots of irrigation should pay more, but I think fixed fees overall are more fair.
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: New customers should pay for that. Through a hookup fee or a new occupancy fee. This would also help fight urban sprawl.
- **What should be included in the monthly fixed service charge vs. the usage rate?**:
- **How should Utilities address water and sewer rate affordability in its rate structure?**: Rates did not ever need to go up, until you imposed the water restrictions due to the drought. So now that there is no drought, people learned how to conserve water, i guess that the rates should stay the same and reward people for keeping up the good work.
- **What issues, concerns, suggestions do you have about the existing rate structure?**: People do not trust CMU since that bill scandel in the summer where people had unexplainibly high bills. You need to do some PR stuff to bring people's trust back.

10.28.10

Questions:

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Bron Dodds
- **Mailing/Billing Address**: 7724 Whistlestop Rd
- **City**: Charlotte
- **State**: NC
- **Zip**: 28210
- **Daytime Phone**: 704-957-7811
- **Email ***: electronbron@yahoo.com
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: Cap the monthly sewer charge for residential water customers who do not have an irrigation meter. Set the sewer rate cap at at the max sewer charge of the months of December thru April, as these months typically are the most true representation of actual sewer usage at a Charlotte residence since they are not lawn irrigation months. Sewer charges during the months of May through November can all be artifically inflated sewer charges because of lawn irrigation.
- **Charlotte-Mecklenburg Utilities issues bonds (loans) to expand and replace pipes and plants. Should costs of expanding and replacing infrastructure be recovered**

through fixed fees, volumetric charges, or a combination?

:

- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**:
- **What should be included in the monthly fixed service charge vs. the usage rate?**:
- **How should Utilities address water and sewer rate affordability in its rate structure?**: Cap the monthly sewer charge for residential water customers who do not have an irrigation meter. Set the sewer rate cap at at the max sewer charge of the months of December thru April, as these months typically are the most true representation of actual sewer usage at a Charlotte residence since they are not lawn irrigation months. Sewer charges during the months of May through November can all be artifically inflated sewer charges because of lawn irrigation.
- **What issues, concerns, suggestions do you have about the existing rate structure?**: The fees for CMUD to install a residential irrigation meter are unreasonably high, to the point of not beeing affordable.

10.28.10

Rate Study Feedback Form

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Karla Hammer Knotts
- **Mailing/Billing Address**: PO 687
- **City**: Pineville
- **State**: NC
- **Zip**: 28134
- **Daytime Phone**:
- **Email ***: karlhk@knottsdevelopment.net
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: fairness to all customers, providing the best service at the lowest cost (not the best service at any cost)
- **Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**: capital expenses should be paid for with bonds, then re-cooped through monthly bills (volumetric)

- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: WOW what a loaded question! you might as well have phrased it "shouldn't those other people have to pay for your service?" - only one answer would have been possible. The developer of the lots / roads pays for the cost to install all facilities. What you didn't say was any 'additional capacity to serve the not-yet-customer.'-- The current capacity fee is appropriate given the govermental desire to grow the economy & the benefit to the current users by the incremental increase in users as a basis to spread fixed costs
- **What should be included in the monthly fixed service charge vs. the usage rate?**: the monthly fee should cover the fixed costs not directly attributed to volume - office staff, meter readers, 311 personnel etc
- **How should Utilities address water and sewer rate affordability in its rate structure?**: HOW? it should be WHY or WHEN? water is a luxury. Sewer is a neccesity. I can choose to lessen my water use if I don't like the bill (shower at the YMCA, wash clothes at a laundry mat, etc). there should be no CMUD policy that offsets the cost of my usage onto another user since we still live in a democracy not a socialist state. If I have a bill I can't pay there are non-profit agencies & religious institutions that can help with that. Like the CMU policy for sewer extension in health related situations, I would not object to a small budgeted line item for non-payments or hardship cases
- **What issues, concerns, suggestions do you have about the existing rate structure?**: the 'lifeline' is too low. the Tier 1 rate needs to cover the actual cost to provide that water. Tier 3+ should not be paying for my water.

10.31.10

Questions:

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Kevin Mueller
- **Mailing/Billing Address**: 5523 Closeburn Rd
- **City**: Charlotte
- **State**: NC
- **Zip**: 28210
- **Daytime Phone**: 7045765067
- **Email ***: kmueller@erac.com
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: There should only be one rate or one tier. The more you use the more you pay. That solves the conservation problem, fairness problem, and simplicity problem.

- **Charlotte-Mecklenburg Utilities issues bonds (loans) to expand and replace pipes and plants. Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**

  : Through its users. The above one tier system can be adjusted up or down depending on the costs of the current system. If you are a new user or old user, we are all on the same network and one day will either need new pipes or repairs to the aging system.
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: Through the same way as listed above. We should encourage new users as they will be paying the one tier rate and using your product.
- **What should be included in the monthly fixed service charge vs. the usage rate?**:
- **How should Utilities address water and sewer rate affordability in its rate structure?**: If low income people conserve water they will spend less. They will be in control of their bills.
- **What issues, concerns, suggestions do you have about the existing rate structure?**: The problem with todays tiered structure is that nobody knows what tier you are currently operating under during the different parts of the month. It is like gambling until you get the bill. It also isnt fair for someone who conserves 10 months a year but has a one time higher need for water. Like getting missed by some rain on one side of town you get killed for one month even if you use less than average all year long.

11.2.10

Questions:

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: David Reeves
- **Mailing/Billing Address**: 3726 Spokeshave Ln
- **City**: Matthews
- **State**: NC
- **Zip**: 28105
- **Daytime Phone**: 704-968-4273
- **Email ***: turtle975@hotmail.com
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: Watering new grass dramatically increases sewer charges when none of the water is going down the sewer.

- **Charlotte-Mecklenburg Utilities issues bonds (loans) to expand and replace pipes and plants. Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**

  : Combination
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: New customers should pay as part of building fees paid by developers and passed on to buyers as part of the price of the new building.
- **What should be included in the monthly fixed service charge vs. the usage rate?**: Same as now is fine with me.
- **How should Utilities address water and sewer rate affordability in its rate structure?**: Sewer rates should not spike so much for just watering new grass.
- **What issues, concerns, suggestions do you have about the existing rate structure?**: Change sewer exemption for watering grass as follows: Take the average of the 3 lowest usage months out of the past 12 months. Assume any usage in the most recent billing month over that amount is due to watering grass and charge the normal rate for the water, but no charge for the sewer on that incremental increase.I have city water and sewer. I normally do not water my grass except when I plant new grass. Our normal water/sewer/storm water bill is about $55/month for a family of four. When I plan grass and water it as recommended (but no more) my bill is typically $160 with $90+ being sewer charges - but that water did not go down the sewer. It went into my grass and trees. Most people don't (or shouldn't) water grass 12 months out of the year. If you assume the additional water over and above the average of the three lowest usage months is all watering grass, it would be a huge help to me and a lot more fair. If you feel three months is too short, average four or five months. Same principle. This would still encourage conservation, but allow people to get some grass planted (and watered) without breaking the bank.

- November 1, 2010
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- To: Water and Sewer Rate Stakeholder Advisory Group (SAG)
- Appropriate CMUD Officials
- c/o Vic Simpson, CMU Communications
-
- From: Michael Rains, Charlotte Citizen
-
- Subject: **Public Meeting Water and Sewer Rate Study**
- Recommendation for Further Exploration into Commercial Conservation Rate Structures
-
- Again, thank you for the opportunity to provide input into this rate design process.
- I have asked a number of questions that attempted to help me understand the equity balance between commercial and residential rates. Thank you for the responses of the consultant that, along with additional study, have helped me understand the basis for the inverted block rate structure for residential use and uniform rate for commercial accounts.

-
- One of my areas of confusion/concern was that I assumed (incorrectly) that the residential structure was solely conservation-based. While it certainly also accomplishes that objective (over say a uniform rate), I would guess that many residential rate payers likely do not understand that this approach is primarily based on equitably recovering the marginal cost associated with peak demand. I raise this point because I still believe improved education of the public will be critical for the approval of necessary and innovative rate structure changes moving forward, including those that may involve conservation incentives.
-
- That, said, I continue to feel a sense of inequity that the current and proposed residential rate structure provides a clear conservation motivation while commercial/industrial does/would not. I do understand the complexity of attempting to approach commercial with a tiered inverted block system. There are too many different types of users for this to be accomplished effectively and fairly; however, there may be other methods.
-
- One in particular that I believe holds promise involves the application of a conservation surcharge during summer months, should the commercial user exceed their average winter monthly usage. This approach is utilized in Tucson, Arizona, a city roughly similar in size to Charlotte. Their approach involves a two tier surcharge design at 1) greater than winter average and 2) greater than 145% of winter average. The complete rate structure is summarized at the following link: http://www.ci.tucson.az.us/water/rates.htm
-
-
- I believe this approach may provide a manageable way to provide conservation equity between the residential and commercial water user categories.
-
- I strongly encourage CMU management and the study team to investigate this approach in further detail.
-

11.3.10

Questions:

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Ross Stutts
- **Mailing/Billing Address**: 419 Clairview Ln
- **City**: Matthews
- **State**: NC
- **Zip**: 28105
- **Daytime Phone**: 704-846-7011
- **Email ***: srstutz@windstream.net
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: Making the rates fair for all customers.
- **Charlotte-Mecklenburg Utilities issues bonds (loans) to expand and replace pipes and plants. Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**

  :
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**:
- **What should be included in the monthly fixed service charge vs. the usage rate?**:
- **How should Utilities address water and sewer rate affordability in its rate structure?**:
- **What issues, concerns, suggestions do you have about the existing rate structure?**: From what I read in the Mint Hill/Matthews paper it appears that the billing rates are simply going to be shifted around and, as an average customer, I won't benefit from the "changes". My main problem is with having to pay sewer fees for my irrigation water when it does not run off my property nor enter the sewer system. I think my YEAR ROUND sewer rate should be based on what I pay during non-irrigation months. Otherwise, it seems VERY unfair. Tks

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11.4.10

Questions:

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Tonyle
- **Mailing/Billing Address**:

- **City**:
- **State**:
- **Zip**:
- **Daytime Phone**:
- **Email ***: ktonyle@yahoo.com
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: For closest sewer meter, average of water usage of 3 winter months (Dec-Mar)is best way to determine amount sewer waste used, seen people use less water for lawn,gardens, wash cars,or use water for things that water soak in to ground, other part of country using that method. CharMeck is currently knowingly overcharges it's customer!!! CLASS ACTION SUIT LAWYERS WOULD LOVE THIS.
- **Charlotte-Mecklenburg Utilities issues bonds (loans) to expand and replace pipes and plants. Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**

  : Yes but not to recoup in short time, also independence third parties auditor needed.
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: Does not need to more new building, consolidate cost saving, at this time.
- **What should be included in the monthly fixed service charge vs. the usage rate?**: Base on usage, commercial facilities at higher rate.
- **How should Utilities address water and sewer rate affordability in its rate structure?**: Compare with other part of the country, not just the high cost living areas
- **What issues, concerns, suggestions do you have about the existing rate structure?**: See first comment

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11.5.10

Questions:

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Bill Daleure
- **Mailing/Billing Address**: 12020 Pine Valley Club Dr
- **City**: Charlotte
- **State**: NC

- **Zip**: 28277
- **Daytime Phone**: 704-995-4981
- **Email ***: bdaleure@avantgarderec.com
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: There should always be a system that charges the family the same rate for water useage whether a one person household or an eight person household. Therefore, the first teir rate should be expanded. Why penalize a family with a lot of children doing a lot of laundary and baths. I understand charging a higher rate for irrigation but it is unfair to not only charge a higher but to continue to charge sewer on top of that. The higher rate teir should not start until sewer charge stop accruing.
- **Charlotte-Mecklenburg Utilities issues bonds (loans) to expand and replace pipes and plants. Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**

  : I beileve it should be in the volumetric fees. Technology and effluent limits are always changing affecting the cost of new and existing facilities. There is no fair way to put this into fixed fees only paid by the new home owner.
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: In the volumetric charge. See above.
- **What should be included in the monthly fixed service charge vs. the usage rate?**: It could be just an administrative overhead fee that covers the cost of servicing all customers. Useage and facility expansion/modifications should be in the volumetric charges.
- **How should Utilities address water and sewer rate affordability in its rate structure?**: See Item one above. The first teir shold only start after the sewer fee stops accruing. Then as teirs increase it is a balancing act to set rates to encourage conservation without killing your ability to cover costs.
- **What issues, concerns, suggestions do you have about the existing rate structure?**: I suggest you review total useage and total revenues for the last ten years. I believe what has happened is that you have been to agressive on where your teirs start and raised them to high. The result is conservation is accomplished but you can not cover your expenses. Buy raising rate further to try to cover expenses, you may find that the citizens can conserve even more and you will never cover your costs. If you have a current supply that in much more than is being used, raise where teirs start and lower the rates which will allow home to use the water they want to use without fear of an exessive bill. the first teir useage and revenue should cover all your normal household costs for service. the second teir should be considered as an irrigation only useage and charged accordingly. It should allow enough water to irrigate a yard 3 times a week in the summer so that Charlotte remains green and beautiful and not result in a bill thay is equal to a car payment. A third teir, if necessary, should be seen a punitive if someone wants to water seven days a week.

11.5.10

Questions:

Please complete the following information:

Note: * indicates required fields for submitting the request

- **url**: http://charmeck.org/city/charlotte/Utilities/CustomerService/ratestudy/Pages/RateStudyFeedback.aspx
- **Name***: Tom Brasse
- **Mailing/Billing Address**: 3027 Ed Reid Street
- **City**: Charlotte
- **State**: NC
- **Zip**: 28216
- **Daytime Phone**: 704-972-2673
- **Email ***: tom.brasse@faison.com
- **What factors are most important for Utilities to consider about existing and alternative rate structures?**: Equality. If I have a household of 7 people, why should I pay more per person than a household of just 3? Obviously we use more water for the additional people, but we end up paying more per person even though CMU's cost to serve us should be less given the economy of scale behind one meter. Also- If I build a new house in a new neighborhood, I will end up paying 50% more for capacity fees? How is this equitable? CMU did not pay for the infrastructure, it was donated by the developer, they are gaining a reoccuring revenue source, and costs to improve or expand the plants and trunk lines should be borne by all of those who benefit from them (everyone). Impacting the cost of housing negatively by jacking up the hook-up fees is not fair and I cannot imagine it is a perdictable or reliable revenue source anyway since it is tied to new homes being built. Will the capacity fee issue apply to new businesses have to pay this too? Will it not further increase the cost of doing business in CLT and push folks out to Lancaster and Fort Mill?
- **Charlotte-Mecklenburg Utilities issues bonds (loans) to expand and replace pipes and plants. Should costs of expanding and replacing infrastructure be recovered through fixed fees, volumetric charges, or a combination?**

  : Volumetric charges or equitable fixed fees, like the mystery stormwater fee I see every month.
- **How should the cost of building facilities to serve new customers be paid for under the rate structure?**: It should be accounted for in the rate structure for volumetric charges. The new customers have already build infrastructure and donated it if it did not already exist, and now you'd potentially ding them for choosing Mecklenburg County? Is this business friendly? Does the Chamber know we are heading this way?
- **What should be included in the monthly fixed service charge vs. the usage rate?**: It does not matter how you cover the expenses of running the facilities and planning on needed upfits and additions, as long as the long-range planning is done so that there are not these surprise rate study issues b/c we've lost revenue. The charges (fixed and usage)

need to be equitable and based on usage and commercial/industrial/residential meter size. Fair, predictable and affordable.

- **How should Utilities address water and sewer rate affordability in its rate structure?**: Again, equality. Nobody should subsidize another in the usage bracket. Calculate the actual cost to provide service and maintain/expand/improve equipment and facilities and incorporate that into the usage rates.
- **What issues, concerns, suggestions do you have about the existing rate structure?**: I think there needs to be an affordable way to seperate my irrigation usage from my household usage without shelling out a couple grand for another irrigation tap. If you'd just branch off behind the box (before the meter) and set another meter box right next to the existing, you could set "another service" for much less than half of what you are currently asking for an irrigation tap. Why cant that happen?

CHARLOTTE.
CHARLOTTE-MECKLENBURG UTILITIES

Water and Sewer System Rate Study
Summary of Public Comments (As of 9-21-10)

Written Comment Cards

The abusers need to be billed at a higher rate.

Why do I need to test my backflow every year. I would think every 3 to 5 years would be sufficient.

We are being penalized for our conservation.

Move the costs of maintaining the core system from tiered rates to fixed costs, especially due to increasing cost of aging infrastructure.

Share main cost of new services across all as part of the fixed fee.

Very concerned regarding NC legislature decisions regarding IBT and impact on our cost of service.

Concerned regarding the fairness & inclined to tier structure.

Clean water a priority and capacity to react to "current" conditions, i.e. drought, etc.

Where do apartments fall – commercial, residential… rates?

In the rate comparison charts, why are Ral, Greensboro, W-S, Fayetteville, Asheville, Wilmington not included?

Verbal Comments

CMU should evaluate its costs to make sure that the capital projects and other costs are necessary in order to minimize the cost to rate payers. The public should have a chance to review these costs.

Adjust rate usage blocks for irrigation customers by the number of residential units.

Be fair about the rates. Make sure that the value is well worth it.

For gated communities – CMU does not read meters, pay for meters, replace water lines. They essentially provide bulk water, and these customers should not have to pay for some of these costs.

CMU should consider supply and demand. If the rates are lowered, people will use more water and CMU will gain more money.

In a wet year, people don't use water, how does CMU address the lower revenue?

Does CMU use reclaimed water? What are the issues related to its use?

Email Comments

I am a homeowner within the Summerlake Villas community. We are a group of 35 townhomes spread among 12 buildings. We have a master meter for our household water usage and a second master meter for our irrigation system. At our recent homeowner's association meeting, I learned that Charlotte-Mecklenburg Utilities computes our household water usage for determining our rate by dividing the total usage by the number of units served by the master meter. This seems very reasonable. However, I understand that the irrigation water usage for the same purpose is set based on the total, as if the entire irrigation system were serving a single home. This makes the usage appear quite high and puts us in the highest usage category. Our usage per home is computed to be 35 times higher than it actually is. We pay a penalty rate even though our usage per property is quite modest. Multifamily customers in this scheme are at a terrible disadvantage.

I am writing on behalf of the homeowners at Villas @ Summerlake. I have just recently gone off the board after serving as Secretary for 9 years. Mr. Rod Madsen, currently on the board as Treasurer and financial advisor, has been investigating our high water rates for several years. He has found that the City of Charlotte has been charging our Association double the water rate for irrigation usage, charging us as if we are one residence. As you are aware, we are a 35 unit complex (12 buildings) and have a rather large common area. Our lawns are watered by an extensive irrigation system. We have tried to conserve over the years, varying the watering schedules according to the amount of rain received during the watering seasons (late Spring, Summer, and Fall). We keep a very close eye on this irrigation system, always checking leaks, broken sprinkler heads, etc. Lynn Tankersley, who oversees our Landscaping committee, is extremely conscious about how many times the irrigation is set to run per week. He always cuts back when we are having sufficient rain. I would hope that our "double rate" charges can be reset to the proper amount. In these tight economic times, it is sad that those of us who are trying to conserve are defeated by a problem which apparently has been existing for quite awhile. Thanks for reading this and hope this problem can be resolved at the meeting on the 16th in our favor.

I live in a town home community called Summerlake Villas. We have 11 buildings with three town homes in each building and one building with 2 town homes for a total of 35 town homes. We have a master meter for our household water usage and a second master meter for our irrigation system. However, for some reason our **household water usage** is determined by dividing the total usage by the number of units (35) served by the master meter while the **irrigation water usage** is based on serving a single entity resulting in our community having to pay the highest usage rate. It does not seem right to me that we should be paying irrigation water usage rates based upon a single entity when, in fact, you are serving 35 homes! Our actual irrigation water usage per town home does not merit the huge penalty we are paying as a result of this unfair policy. I understand from Mr. Madsen that Charlotte Mecklenburg Utilities is undertaking a study of this issue. Please include my comments in your study. The bottom line is I request Summerlake Villas gets charged the fairer rate for irrigation water that is based upon 35 town homes rather than a single entity and our 2010 charges for irrigation be modified to reflect the lower rates we should be receiving.

From about 2007 to 2009 I had been paying $70-$90 per month when you were using the inaccurate transmitters. I paid about $35 per month before the transmiters. Now that the transmiter problem has apparently been fixed my monthly bill is about $45. You have been ripping me off for almost $1000 extra dollars. I know you won't give the money back but you are the worst utility I have ever dealt with personally and I have read about your abuses in the paper. I know I will not hear back anything about this e-mail if what they say about how you is true.

What criteria is most important for Utilities to consider when evaluating existing and alternative rate structures?: Fairness in charging for sewer usage. The cutoff for sewer usage charges is now 24 ccf (18,000 gallons). That means all irrigation users who do not have a separate irrigation meter pay for thousands of gallons of water that NEVER sees the sewer line. A more fair way would be to use a customer's non-irrigaion months (winter) to arrive at a fair monthly sewer rate. My winter sewer rate is about 22.00 per month. But during the irrigation season (and I use it moderately) I pay 62.00 +/- for sewer. I question if this is legal. I have written CMUD and the City Attorney and have received no answer.

How should the utility allocate the cost to customers for building water system capacity to meet summertime peak water demands?: It appears the current water capacity is sufficient.

How should the cost of constructing facilities to serve new customers be paid for under the rate structure?: These costs should be paid for, in part, by the company building the houses, plants, etc.

What costs should be recovered from the monthly fixed service charge vs. the usage rate?: I don't understand the "fixed" service charge at all. If I'm out of town for a month and use NO water I should owe nothing.

How should Utilities address water and sewer rate affordability in its rate structure?: Absolutely!! They currently do not. Take the promise last year during the "drought" - "these hikes are temporary" NOT!

What issues, concerns, suggestions do you have pertaining to the existing rate structure?: I personally think CMUD is now making a profit. I don't think that's it's purpose. They should only charge enough to cover their expenses - no more.

I want to contest my water bill and the rates for which I am charged. I think the current rate structure is unfair to residential customers and especially unfair to those with irrigation systems. Apparently, commercial customers only pay $1.66 per ccf of water used. That's **19% less** than my rate of $2.04 when, apparently, my irrigation charges begin and **58% less** than my usage over 22 ccf. I try to conserve water but I also need to use my irrigation system to ensure a healthy lawn. Two weeks ago during the heavy rains I drove into town on Randolph Road and observed several commercial irrigation systems spreading water on the already soaked grass. *That's wasteful! PLUS, I am billed a sewer charge for the water used by my irrigation system when NONE of it goes into the sewer*. ***A fair billing policy would be for me to be charged for sewer year-round for my average bill during non-watering months – October – March.*** I've been told by CMUD that I could have an additional meter installed to record my irrigation usage but the *cost to me is $1000.00.* That too is ridiculous. Builders should be required to install an additional meter when an irrigation system is set up. I'm sure then the cost would be minimal and the irrigation usage could be billed at a fair rate not to include sewer.

I am, or course, a customer of Charlotte-Mecklenburg Utilities and have a few questions about your operation. (1) What state or federal agency, if any, regulates the Charlotte-Mecklenburg Utilities Dept.? (2) Who determines the rates charged customers of CMUD? (3). What, if any, appeals process is there for customers of CMUD? (4) Why have rates changed for customers who use larger quantities of water, i.e. have irrigation systems? When I was a customer in the late 90's, the higher water usage equaled a lesser charge per unit was charged. (I think the marker was over 18 ccfs).

I'm writing in regard to my water/sewer/storm water bill and the legality of how some of the calculations are computed. I have complained to CMUD regarding the rates charged residential customers versus commercial and also how the charge for sewer use is calculated. The response I received was educational as an explanation of who determines "rate methodology" and "tiered pricing" and that CMUD is an "enterprise department" that operates from revenues they generate but my concerns were not addressed.

My main concern, complaint and question of legality is *how the sewer charge is determined?* I am told sewer charges are based on the amount of water used by a customer. In many cases that makes perfect sense. But when the customer has an irrigation system and the sewer charge is based on water use during months (about five or six) the irrigation system is utilized the sewer charge for those months is **unreasonable and excessive**. *Here lies my question of legality.* I requested and received my CMUD

bills for a recent period. For simplicity reasons I separated the bills into two six month periods although they don't exactly match "irrigation and non-irrigation months". I'm considering the bills dated 5/25/06 through 10/26/06 as my irrigation months. For these months my water charge averaged $27.53 with $45.59 for sewer. That's 165% of the water cost for my sewer fee. The other six month period is for bills dated 11/27/06 through 4/26/07 and is my non-irrigation months. For this period my water charge averaged $13.71 per month and sewer $27.63. *That's calculating a sewer fee of 201% of my water amount.* My average water bill was $13.82 more during the irrigation period. I used that water so I have no complaint about the additional expense. But, my average sewer charge was $17.96 additional per month. *Although this is a nominal amount I dislike spending money for which I get no return.* Common sense will tell you that this additional water used for irrigation ***does not*** go into the sewer system so I question the legality of charging me as if it does. *If you multiply that by the number of CMUD customers who have irrigation systems (probably hundreds of thousands) the dollar figure is astronomical.* In the CMUD response letter I received it was explained that there is a "sewer cap of 18 ccfs for residential customers" so I presume that explains the difference in the 165% and 201% sewer calculation. I doubt there are many, if any, residential customers *without* irrigation systems who use over 18 ccfs! That's over 13,000 gallons of water. Since I try to conserve water *I only average 12,000 gallons (16.1 ccfs) per month during my irrigation period* so I rarely benefit from the 18 ccfs cap. In one of my phone conversations with a CMUD representative I was told, for a fee of $1000.00, I could have an additional meter installed to gauge the water just used for irrigation. It would take me over fifty-five months to recoup that charge. *That's obviously not a logical solution.* My proposals are simple – *maybe too much so.* Since we know my average sewer charge is $27.63 for my non-irrigation months, why not charge that *each* month rather than using the current method which appears to be between 166% and 201% of the water charge. A second proposal is to lower the sewer cap for residential customers to a more reasonable number.

First of all, please excuse my not writing to you individually but I have pneumonia and expect my wife to pull me by the ear back to bed any minute. But I have some observations and/or complaints to make about CMUD and their proposed rate hike. I know that I am at a disadvantage because I do not live in Charlotte so I cannot choose who is on City Council based on your decisions and am forced to purchase my water from CMUD. And although I copied then Mayor Lee Myers with one of my CMUD complaints, I received no response from him. And also since he more or less selected his successor, I expect the status quo from my elected officials. *But I hope you will still read my concerns as I think they are valid.* A recent article by Mr. Steve Harrison of the Charlotte Observer reported the CMUD request for increases but just reported what was told to City Council and did, in no way, simplify the numbers so I could fully understand what the increase actually entailed. Due to the drought of 2007 CMUD asked for and was granted a "temporary" large increase in their rates as they are a "self supporting" department meaning to me, they operate on the profits of selling water to their customers. I question how much research and thought went into this "temporary" increase as they **now** say that they cannot continue to operate with the "temporary" increase, *that has now become permanent,* but also want another one. Why? Did they not envision after a

voluntary, then and mandatory, irrigation regulation that they would be selling less water? Or did they just consider that if that increase wasn't enough, they could just ask and receive permission for another a year later? If my information is correct we are now above that average rainfall with no drought predicted for the near future. So we can, for the present, eliminate drought restrictions as a reason for a rate increase.

An additional, and more costly, complaint is how CMUD calculates their "sewer" charge. This charge, for some reason, never seems to be mentioned when asking for a rate increase although it **makes up the vast majority of the "water bill".** I think it's not mentioned to delay "sticker shock". Reminds me of buying a car! On the lot the sticker says X but when you get in the salesman's cubicle it's suddenly Z. During my last 2 months of bills (non-irrigation periods) they average $8.39 for water (average 4.5 ccfs), $4.63 for storm water runoff and ***$ 19.57 for sewer***. The sewer fee equates to **233% of my water bill** that *actually* went into the sewer system. In Mr. Harrison article, he quotes CMUD as saying a customer's bill, who used 8 ccfs of water, would now be $ 47.96 and would only increase to $ 51.20. *Doesn't sound like much, does it?* **But factor in the sewer fee and the real cost is $ 111.74 + runoff fees now and $119.29 + runoffs after the increase** provided, of course, CMUD only charged the average of 233% for the sewer fee. I now pay my bills on-line and only have access to a couple of months of bills but in the past have compared up to 12 months and the **range of sewer was from 165% to 250%** so that also raises a question. *Exactly how do they determine the sewer fees?* Does CMUD not have a monthly multiplier or does it change from month to month? It certainly seems to! During the irrigation months I get billed for the same 233% +/- for water that does not go into the sewer system. It goes only onto my lawn. And I set my system so it does not deposit so much water that some of it runs off into a nearby creek. I'm aware that CMUD has a cap on when they stop billing for sewer water they ***know is not going into my sewer pipes*** but it is ridiculously high. If I remember correctly it's 18 ccfs – that's over 13,000 gallons of water. **But only 6,358 gallons actually goes through my sewer pipes.** I have no idea how this 233% +/- amount was determined. Is it a mathematical equation or one based realistically on how much it costs to treat the water, etc. in the sewer? I've asked but have received no answer from CMUD. I assume this money is "pure on-the-top profit". What else could it be? I also question that if it's not an accepted mathematical calculation or an actual sewer treatment cost, how legal is it? *And especially since CMUD knows that during the* ***non-irrigation season I only use 4 – 5 ccfs of water*** *and charge my sewer bill accordingly,* ***so why do I have to pay for the increased sewer ccfs used on my lawn during the irrigation months when only an average of 4.5 ccfs actually sees the sewer pipe?*** Please do not misunderstand me. I'm more than willing to pay my fair share in taxes and water but don't want to be fleeced for either.

What issues, concerns, suggestions do you have pertaining to the existing rate structure?: For multi-family house water billing, water usage is adjusted for the number of units served before calculating the rate. This is only common sense, since the goal is to reflect usage per household, not per meter. However, the same common sense has not been applied to irrigation use for multi-family customers. Irrigation bills are currently

calculated by total usage, rather than per household. Under the current system, multi-family customers are being penalized for using less irrigation water per household than an average single detached house. For example, there are 102 families in my condo community, living on approximately 5 acres. The same 102 families in single detached houses would take up roughly 25 acres of irrigable land, assuming a quarter acre per house. So each of our families are using approximately 1/5th of the irrigation water needed for an average single detached house. Yet we are being charged $5.32 per ccf after the first 16 ccf used. My proposal is this: calculate irrigation water usage for multi-family complexes the same as standard water billing. Divide the total cubic feet of water used each month by the number of units before calculating the rates. The irrigation rate would be the same as for single detached houses - $2.69 for the first 16 ccf, and $5.32 per ccf beyond the first 16 ccf used, after being adjusted for number of units.

What criteria is most important for Utilities to consider when evaluating existing and alternative rate structures?: Water availability for essential services. When water availability is plentiful, punitive rates should not be applied. Rates were raised during drought of 2008 to reduce consumption. Then rates were raised again when water was plentiful because customers were not using as much water. The logic of the second rate increase is not clear.

How should the utility allocate the cost to customers for building water system capacity to meet summertime peak water demands?: A reasonable tiered rate structure is appropriate.

How should the cost of constructing facilities to serve new customers be paid for under the rate structure?: Sell bonds and repay them through increased revenue from the new customers.

What costs should be recovered from the monthly fixed service charge vs. the usage rate?:

How should Utilities address water and sewer rate affordability in its rate structure?: The Tier 4 rate should be eliminated. That rate is punitive especially during long periods without rain when the water supply is adequate. Revenue should be be compared to the prudent costs of providing services.

What issues, concerns, suggestions do you have pertaining to the existing rate structure?: Rates are too expensive even when the owner of the property is consciously conservative in the use of irrigation system to keep shrubbery alive.

1. **What criteria are most important for Utilities to consider when evaluating existing and alternative rate structures?**

   No single group of rate payers should be unduly burdened above the actual cost of providing the water and sewer services they use. Predominantly residential areas should bare only that portion of costs associated with higher use, and should not be

required to subsidize low volume users regardless of the social considerations currently driving low volume rates. Predominantly residential areas should not be relied upon to provide funds over and above the actual costs of the services they use. Fiscal problems can be resolved not by charging some customers much more, but by charging all customers fairly and adequately. Sell a lot of water at reasonable prices and everyone wins. Charge too much, force austerity, and no one wins – particularly the utility.

2. **How should the utility allocate the cost to customers for building water system capacity to meet summertime peak water demands?**

Expanded development is the principal driver of the rate at which "peak" demand grows. Addressing peak demand is associated with two functions of water management. Expanding treatment capacity and providing adequate storage [reserves for peak usage] and delivery systems, are standard resolutions for issues of peak demand. Current users should pay for current peak demand needs, while developers should pay for new facilities to increase production in anticipation of increased demand. The current system is well positioned to address peak demand needs with a production ability of 63 percent of peak demand. It is likely that current issues related to peak demand are the result of insufficient storage.

3. **How should the cost of constructing facilities to serve new customers be paid for under the rate structure?**

Providing water and sewer services to new customers benefits three principal groups. Developers who profit from its business interest, the City/County that earns additional tax revenue from developed land and additional tax payers; and the new customers themselves whose property has more value due to utility access and quality of life intangibles. These three groups should pay for the cost of constructing facilities to serve them. Capacity fees should be adequately set to provide for reserves and debt service when new construction is neededl

4. **What costs should be recovered from the monthly fixed service charge vs. the usage rate?**

All administrative and management costs and overhead should be born equally by all ratepayers. Every rate payer is served by entities that oversee and manage the administrative, billing, and meter reading activities of the utility. The cost of these operations should be spread evenly among all customers -- both residential and commercial.

5. **How should Utilities address water and sewer rate affordability in its rate structure?**

The provision of water and sewer services is an essential part of modern living. Affordability is addressed by the utility's effort to keep costs as low as possible, while providing the finest product delivered. A customer's ability to pay should be of no consideration in pricing an essential commodity. Providing low level users with cheap water/sewer service through the rate system provides both rich and poor with a subsidy. Million dollar high rise condos get the same break as the urban poor.

Should City Government wish to provide subsidies to low income users, this social act should be paid for through tax revenue. All rate payers are tax payers, but not all tax payers are rate payers. Simply put, all citizens should participate in providing any sort of subsidy for social good. Fund transfers to the utility would ostensibly cover any funding short fall due to lower rates for some. Usage based discounts just don't work.

6. What issues, concerns, suggestions do you have pertaining to the existing rate structure?

Clearly, the rate payer rebellion of last year was due principally to the near doubling of water bills for above average users. The 4th tier was decided upon internally based on the utility's need for funds. Using "conservation" as a rationale together with the short lived drought gave utility management an opportunity to make it self whole fiscally and embark on new construction projects paid for by predominantly residential communities.

The 4th tier should either be abolished for set to kick in at truly high rates of usage such as 30 ccf's.

Low level users should be required to pay the true cost of water/sewer delivery and all subsidies removed.

The sewer charge cap should be set at 16 ccfs. Nearly all water used above that level returns to the land without requiring treatment.

The fixed charge should be appropriately set to cover all costs associated with billing, administration, meter reading, and customer support.

Costs for construction and expansion should be borne by those who benefit for additional capacity and service. Major repair, maintenance, and service efficiencies should be borne by current users.

CIP's should be built from the bottom up. Absolute needs related to quality upgrades, maintenance, repair & replacement should be funded first. Increased capacity should be funded with infusions of capital from those who benefit from it [e.g., City government and developers].

Based upon current usage statistics determine what income would be available at successively modest rates. Instead of setting rates to build a bigger system, determine how much of a system CMUD can afford by running various funding scenarios. Find out what the utility can afford given a reasonable rate structure existing prior to 2007, then set CIP levels accordingly.

Summary of Written Public Comments Pertaining to the Rate Structure
Charlotte-Mecklenburg Utilities
Water and Sewer Rate Study

Rate Structure Option	Support	Against
Increase the Fixed Charge	4	6
Lower Sewer Cap or Use Winter Average	11	0
Lower Tier 1 Rate For Affordability	2	2
Adjust Rates for Irrigation-Only Master Meter Customers	5	0
Raising Capacity Fees	4	4
Encourage conservation	2	
Maintain the Current Tier Structure	2	
Reduce the Number of Tiers	4	2
Lower the Tier Rates	1	2
Conservation Rate for Commercial Customers	1	
Flat Fee for Sewer	1	

Based on 32 email and comment card responses as of 11-1-10.