1. Participant List – See Attachment #1

2. Introductions

3. Desired Outcomes Poll Results:
   - Understand what constituents want in rate structure
   - Understand how rate structure impacts billing
   - Learn about affordability
   - Learn what the key issues are in the rate analysis
   - Define community’s goals
   - Here to observe
   - Networking
   - Understand the rate structure

4. Chartering Agreement Review – Lynne Chaimowitz, City of Ann Arbor
   - Purpose of the Advisory Committee
     i. Provide oversight of study process and related issues.
     ii. Ensure consistency in project approaches.
     iii. Focus on quality assurance by assessing work products and examining project recommendations.
     iv. Identify gaps, conflicts, and/or deficiencies on topics relevant to the project.
     v. Provide feedback from a community perspective.
   - Membership and Leadership
     i. Individuals with varied backgrounds and expertise regarding water and wastewater as they affect Ann Arbor and its residents.
     ii. Create a group that effectively and respectfully provides feedback on complex issues relating to water and wastewater rates.
     iii. The Advisory Committee Leader and main point of contact is Lynne Chaimowitz.
     iv. Materials will be distributed at least one week before the meeting and Members are asked to review materials distributed prior the meetings for discussion.
   - Schedule and Logistics
     i. All meetings will be held from 4:00 to 6:00 p.m. on July 11, August 23, September 19, October 25, November 29, December 20.
     ii. A web meeting option will be arranged going forward for those that aren’t able to meet onsite or prefer to meet digitally. See Attachment #2 for information regarding the Go-To-Meeting web meeting.
5. Project Review – Andy Burnham, Stantec
   - Andy thanked the participants and stressed the importance of consistent participation in the process. It is critical to ensuring needs are met in a sustainable way.
   - The Project:
     i. Evaluate the needs of the system, values of the community, and expectations of the customers
     ii. Engage the community to:
        1. Validate rate objectives (equity, affordability, conservation (or water efficiency))
     iii. Goal: Recommendations to Council in December of 2017 for implementation in July of 2018 (next fiscal year)
   - Background Information:
     i. The last rate study was done 15 years ago by Carter Burgess. The evaluation included:
        1. Revenue Sufficiency
        2. Cost Allocation
        3. Rate Structure Alternatives
           a. Use of Inclining Block Rate
           b. Removed Minimum Use Allowance
        4. Rates have since evolved
           a. Consolidated the 4th tier rate (concerns of large users)
           b. Indexed annually to meet revenue requirements
     ii. Summary of Current Rate Structure – See Attachment #3
        a. Residential Water Rate Structure
           i. $1.55 per CCF for 1-7 CCFs
           ii. $3.37 per CCF for 8-28 CCFs
           iii. $5.89 per CCF for 29-45 CCFs
        b. Water Commercial Rate
           i. There are different rate structures for second water-only meter used in the home and for second water-only meter used for outdoor irrigation
        c. Sewer Service Rate
           i. $4.58 per CCF/quarter
iii. Quarterly Residential Fee Survey of similar cities with universities:

<table>
<thead>
<tr>
<th>City</th>
<th>Bill per Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Park, MD (WSSC)</td>
<td>$280.59</td>
</tr>
<tr>
<td>Bloomington, IN</td>
<td>$187.64</td>
</tr>
<tr>
<td>West Lafayette, IN</td>
<td>$186.00</td>
</tr>
<tr>
<td>New Brunswick, NJ</td>
<td>$175.69</td>
</tr>
<tr>
<td>State College, PA</td>
<td>$173.20</td>
</tr>
<tr>
<td>Champaign, IL</td>
<td>$170.86</td>
</tr>
<tr>
<td>Columbus, OH</td>
<td>$158.98</td>
</tr>
<tr>
<td>Iowa City, IA</td>
<td>$150.40</td>
</tr>
<tr>
<td>Madison, WI</td>
<td>$140.83</td>
</tr>
<tr>
<td>East Lansing, MI</td>
<td>$140.12</td>
</tr>
<tr>
<td>Ann Arbor, MI</td>
<td>$123.82</td>
</tr>
<tr>
<td>Minneapolis, MN</td>
<td>$118.44</td>
</tr>
<tr>
<td>Evanston, IL</td>
<td>$101.59</td>
</tr>
<tr>
<td>Lincoln, NE</td>
<td>$81.97</td>
</tr>
</tbody>
</table>

- Overview:
  - Study Objectives
    1. Project full cost of service
       a. Refine multi-year financial management plan
       b. Ensure full integration of capital and asset management needs
    2. Evaluate customer class cost allocations and rate structures with affordability in mind
    3. Engage community stakeholders
       a. Solicit input and comments regarding community expectations related to water/sewer rates
    4. Develop dynamic model for future use
       a. Long-term sustainability & ongoing financial management
- Steps in the Process:
• Water and Economic Trends Observed:
  i. Overall reduction in water use.
  ii. Inflation has increased and household income has decreased.
  iii. Water and Sewer Rates have increased at a rate 3x higher than inflation.
  iv. $1 Trillion needed for water and sewer infrastructure investment. Infrastructure costs alone could triple the size of a typical family’s water bills.
  v. Understanding these factors will be considered as affordability is addressed and linked to rates.

• Schedule and Path Forward
  i. Currently populating financial models and initializing analysis
  ii. Completion in late 2017 for 7/1/18 implementation.
  iii. Council in Dec/Jan of 2017 – Hearings in April of 2018
  iv. Advisory Committee Progress Meetings:
     1. Today is introductory
     2. August 23 – Revenue Requirements and Cost of Service
     3. September 19 – Cost of Service, Rate Structure and Affordability
     4. October 25 – Rate Structure and Affordability
     5. November 29 – Wrap-up / number finalization
     6. December 20 – Review presentation materials for Council

• Q/A
  i. Q: Have rates always been adjusted through Council? A: Yes, rate changes are approved by Council.
  ii. Q: How is sewer usage measured? A: Winter average water usage is used to bill for sewer charges.
  iii. Q: How do you bill for multi-family complexes? A: The customer class is based on how the property is metered. One large meter is generally billed as commercial customer. Individual meters would be billed as individual customers. Setting a Multi-family rate class requires a big effort and valid data to confirm class.
  iv. Q: Is their openness to creating new customer classes, such as, non-profits? A: It is always good to have the conversation. The key is grouping customers together in how they use water and how they place demand on the system. Some communities have many different classes in their commercial billing structure.
  v. Q: If there is an apartment complex, do they pay at a higher commercial rate? A: The overall bill comparison would need to be done to understand it.
  vi. Q: How did you select the communities in the billing survey? A: The criteria was of similar communities in the Midwest with a large university.
  vii. Q: Do the compared communities belong to a regional authority or treat their own water? A: We can review and provide a differentiation between the two.
6. Preliminary Survey Results – Lynne Chaimowitz

- Committee members were polled to ask if they had participated in the survey, only a few had completed the survey online. Lynne will send the survey link out to the committee to review and complete it.
- Of the 679 responses –
  i. Geographic breakdown:
     1. 51% in 48103
     2. 28% in 48104
     3. 18% in 48105
     4. 3% in 48108
  ii. 95% identified as residents.
  iii. 46% rated infrastructure good or better; 31% rated it fair or poor.
  iv. 31% are very satisfied with quality of water/sewer services; 47% are satisfied; and 8% are dissatisfied or very dissatisfied.
  v. Top concerns about aspects of water and sewer:
     1. Being Able to Drink Water Straight from Tap (90%)
     2. Lakes and Rivers being safe for Swimming, Fishing, and Other Recreation (93%)
     3. Having a Robust Water Supply to Sustain my Community Through a Crisis (85%)
  vi. Views regarding water bills:
     1. 73% are willing to pay higher water bill to improve and modernize the water systems to ensure safe and reliable water and sewer service.
     2. 27% believe their water bill is too high and would not be willing to pay more to sustain and modernize the water and sewer system.
  vii. 277 Comments were received and currently being tabulated for review and discussion.

- Comments:
  i. Water and sewer are really two different questions.
  ii. I am concerned about the sample size and majority located in one area for the survey.

- Question/Answer:
  i. Q: How was it distributed? A: Website, Social media channels (Facebook, NextDoor, and Twitter), Gov. Delivery, MLive Article, radio interview and press release.

7. Initial Issues to be Addressed – Andy Burnham

- Traditional Cost of Service
  i. M1 Principles of Water Manual provides detailed inter-class cost allocation (i.e. residential to commercial)
  ii. Intra-class cost allocations in M1 are less specific (each tier)
  iii. Communities rarely focus on tying conservation rates *directly* to costs

- How do we allocate cost to tiers?
  i. Quantifying the marginal costs of water service
     1. Sources of supply
2. Allocation of max day and peak hour costs
3. Water conservation programs
4. Development of alternative supplies
5. Avoided costs
   ii. Other options: Use of unrestricted funds
   • Why do we link costs to tier pricing?
     i. Enhances intra-class equity
     ii. Provides transparency
     iii. Helps explain tiers to customers
     iv. Helps utility understand its own costs
     v. Enhances defensibility (some states)
   • Cost Allocation Framework

- Example Distribution of Cost to Customer Classes
What is a Representative Household?

i. Indoor Usage: 3 people using 59 gallons per person per day = 5,300 gallons a month
ii. Outdoor Usage: 10,000 sqft lot with 2,500 sqft irrigable, 4,300 gallons for normal irrigation a month.
iii. OR:
iv. Outdoor Usage: 20,000 sqft lot with 5,000 sqft irrigable, 8,600 gallons for normal irrigation a month.

Commercial Rate Structure

i. Commercial rate structure is effectively a uniform rate. Over 97% fall into the first tier.
ii. Commercial customers have a profit motive to conserve

<table>
<thead>
<tr>
<th>Commercial Tiers:</th>
<th>Rate:</th>
<th>Volume Distribution 2016:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$3.81</td>
<td>97.8%</td>
</tr>
<tr>
<td></td>
<td>$7.26</td>
<td>1.5%</td>
</tr>
<tr>
<td></td>
<td>$12.44</td>
<td>.7%</td>
</tr>
</tbody>
</table>

Readiness to Serve Charge

i. Readiness to serve charges based on meter size represent an equitable way to meet fixed cost recovery goals, while recognizing the greater potential instantaneous demands larger meters are capable of.

<table>
<thead>
<tr>
<th>Meter Size:</th>
<th>5/8”</th>
<th>1”</th>
<th>2”</th>
<th>4”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Flow GPM:</td>
<td>20</td>
<td>50</td>
<td>160</td>
<td>1,000</td>
</tr>
</tbody>
</table>
• Monthly Billing vs. Quarterly Billing
  i. Benefits of Monthly Billing
     1. Affordability in the form of smaller more regular budget friendly bills
     2. Clear conservation signals stemming from a shorter consumption to bill generation time period
     3. Aligns with industry best practices
  ii. Cost Considerations
     1. Increased resources for billing/collections. (Appx. 500k yr.)
• Summary of Key Issues
  i. Cost Allocation Methodology
  ii. Residential Tier Sizing
  iii. Commercial Rate Structure
  iv. Readiness to Serve Fee
  v. Monthly vs Quarterly billing
• Comments:
  i. Use the term conservation carefully and consider using efficiency. Conservation is a tough conversation in a water rich state. The idea is to optimize your system or be efficient with water usage.
  ii. Data for Multi-family units include number of bedrooms.

8. Small Group Breakout Discussion
• Members were asked to break out and discuss concerns/questions that they have regarding the topics of Affordability, System Infrastructure, Residential and Commercial Rate Structures. Concerns/questions that were discussed are as follows:

• Affordability
  o Legality
  o Data about usage
  o Identify type of user
  o What are other cities doing?
  o Efficiency vs. affordability
  o Jan Beecher suggested reviewing the report on the Detroit Blue Ribbon Panel on Affordability at:
• System Infrastructure
  o Aging infrastructure
  o Transition of system from new/growth to built-out/stable
  o Wastewater Treatment Plant replacement/Water Treatment Plant is next
  o Area repairs → replacement costs
Systematic approach to Asset Management . . . consider level of service
No accurate way to measure water production. It was noted that recent non-revenue water/water leak audit indicated that 92 to 94% of water is accounted.

- Residential Rate Structure
  - Multi-family rate – compare a co-op with 66 meters to single family
  - Sanitary
    - Footing Drain Disconnection - No incentives even though there are saving to the flow in the system.
  - Climate change needs to be considered

- Commercial Rate Structure
  - Equity between commercial and resident rate

9. Closing Comments – Liked Best and Need Next

<table>
<thead>
<tr>
<th>LIKED BEST</th>
<th>NEED NEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respectful interaction</td>
<td>End goal financially – Asset Management/Capital Improvement Plan</td>
</tr>
<tr>
<td>Appreciated Affordability discussion</td>
<td>Asset Management studies for Water/Sewer</td>
</tr>
<tr>
<td>Participation (2 votes)</td>
<td>City data on customer base</td>
</tr>
<tr>
<td>On time</td>
<td>Materials in advance for reviewing</td>
</tr>
<tr>
<td>Found kindred spirits on equity</td>
<td>Work arounds on affordability</td>
</tr>
<tr>
<td>Overview (2 votes)</td>
<td>Data on the City (3 votes)</td>
</tr>
<tr>
<td>Presentation (2 votes)</td>
<td>Definitions/glossary of terminology</td>
</tr>
<tr>
<td>Knowledge</td>
<td>BOLT explanation (3 votes)</td>
</tr>
<tr>
<td>Snacks</td>
<td>Know what information is wanted</td>
</tr>
<tr>
<td>Break-out discussions (2 votes)</td>
<td>More information (2 votes)</td>
</tr>
<tr>
<td>Diversity of participants</td>
<td>Learn rates</td>
</tr>
<tr>
<td>Mix of individuals/staff/residents (2 votes)</td>
<td>Multi-family structure</td>
</tr>
<tr>
<td>Details on system</td>
<td>Discuss Gelman Plume</td>
</tr>
<tr>
<td>Organized</td>
<td>Overview of # of customers, water production, usage changes</td>
</tr>
<tr>
<td>Room environment – not too warm or cold</td>
<td>More storm and sanitary discussion and equity</td>
</tr>
<tr>
<td></td>
<td>Current estimate for capital costs for W/S</td>
</tr>
<tr>
<td></td>
<td>Contact list of Advisory Committee</td>
</tr>
<tr>
<td></td>
<td>Value will reflect consistent involvement</td>
</tr>
</tbody>
</table>
10. Action Item Review

- Committee Members to review and complete the survey at https://www.surveymonkey.com/r/5CPPQTD.
- Advisory Committee Members to provide a signed Charter Agreement to Lynne before the next meeting.
- Web meeting information will be included in the meeting invitation.
- Links to additional information will be sent immediately. Lynne sent the following links to the Committee on July 12:
  i. The Project web page is: http://www.a2gov.org/cos
  ii. The Billing Website is: http://www.a2gov.org/services/Water-Billing/Pages/default.aspx
  iii. The Water Treatment Website is: http://www.a2gov.org/departments/water-treatment/Pages/default.aspx
  iv. The Wastewater Treatment Site is: http://www.a2gov.org/departments/waste-water-treatment/Pages/default.aspx

11. Next Meeting

- Wednesday, August 23 at 4:00 p.m. at Ann Arbor Water Treatment Plant – 919 Sunset, Ann Arbor MI 48103.
- Note: The Financial Modeling Overview was moved to the next meeting agenda to provide time for the group to break out discuss the topics covered today.

12. Public Comment

- Peter Houk provided the following comments:
  i. More participation by citizens
  ii. Send survey again
  iii. Sewer rate cost breakdown structure (similar to water presented today)
  iv. Provide pricing signals with monthly billing
     1. Location and time could be improved to a central location and after work time.
### ATTACHMENT #1 – Participant List

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Organization Representing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>Jim</td>
<td>U of M</td>
</tr>
<tr>
<td>Appel</td>
<td>Mike</td>
<td>Avalon Housing</td>
</tr>
<tr>
<td>Beecher</td>
<td>Janice</td>
<td>MSU Institute of Public Utilities</td>
</tr>
<tr>
<td>Burnham</td>
<td>Andy</td>
<td>Stantec</td>
</tr>
<tr>
<td>Byrd</td>
<td>Patricia</td>
<td>Arrowwood Hills Co-op</td>
</tr>
<tr>
<td>Cederquist</td>
<td>Jack</td>
<td>Orchard Hills/Maplewood Homeowners</td>
</tr>
<tr>
<td>Chaimowitz</td>
<td>Lynne</td>
<td>City of Ann Arbor</td>
</tr>
<tr>
<td>Demetriou</td>
<td>Marios</td>
<td>Ann Arbor Public Schools</td>
</tr>
<tr>
<td>Doughty</td>
<td>Joan</td>
<td>Community Action Network</td>
</tr>
<tr>
<td>Elias</td>
<td>Abigail</td>
<td>City of Ann Arbor</td>
</tr>
<tr>
<td>Glorie</td>
<td>Lou</td>
<td>Brooks Street Neighborhood Association</td>
</tr>
<tr>
<td>Graham</td>
<td>Christopher</td>
<td>East Aberdeen Drive Association</td>
</tr>
<tr>
<td>Houk</td>
<td>Peter</td>
<td>Resident</td>
</tr>
<tr>
<td>Hupy</td>
<td>Craig</td>
<td>City of Ann Arbor</td>
</tr>
<tr>
<td>Hutton</td>
<td>Susan</td>
<td>Environmental Commission</td>
</tr>
<tr>
<td>Kenzie</td>
<td>Earl</td>
<td>City of Ann Arbor</td>
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<tr>
<td>Maciejewski</td>
<td>Molly</td>
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</tr>
<tr>
<td>Miller</td>
<td>Carol</td>
<td>Wayne State University/Resident</td>
</tr>
<tr>
<td>Naud</td>
<td>Matt</td>
<td>Resident</td>
</tr>
<tr>
<td>Newman</td>
<td>Teresa</td>
<td>Project Innovations</td>
</tr>
<tr>
<td>Praschan</td>
<td>Marti</td>
<td>City of Ann Arbor</td>
</tr>
<tr>
<td>Rosemurgy</td>
<td>Bill</td>
<td>Broadway Area Neighborhood Association</td>
</tr>
<tr>
<td>Slotten</td>
<td>Cresson</td>
<td>City of Ann Arbor</td>
</tr>
<tr>
<td>Stevens</td>
<td>Kyle</td>
<td>Stantec</td>
</tr>
<tr>
<td>Wingle</td>
<td>Aimee</td>
<td>City of Ann Arbor</td>
</tr>
</tbody>
</table>
ATTACHMENT #2 – Web Meeting Instructions

**Step 1: GoToMeeting Connection**

You will receive a meeting invitation with information similar to this example:

Please join my meeting from your computer, tablet or smartphone.
https://global.gotomeeting.com/join/191403749

You can also dial in using your phone.
United States: +1 (872) 240-3412
Access Code: 191-403-749

First GoToMeeting? Try a test session: https://care.citrixonline.com/g2m/geset/ready

For best audio results please dial in by phone and use the online connection to view the materials and use the chat function.

---

**Step 2: Set-up Audio Source**

When you first join, you’ll be prompted to choose which method you’d like to use to listen to the meeting audio.

- Select Computer audio to use your computer’s mic and speakers.
- Select Phone call to use your telephone to dial in to the audio conference.

Once you’re in the session, you will see your audio controls on the Audio tab. You can switch audio modes at any time.

**Step 3: Mute and Unmute Functions**

Control your audio feed using the Audio button at the top of your Control Panel or Grab Tab, which will glow green when you are unmuted and others can hear you. You’ll see a Mic icon for Computer audio, or a Phone icon for phone call audio.

You can also switch between Computer and Phone audio if needed by opening the Audio pane in the Control Panel.

*Note: Most Computer audio users are muted by default when they first join. If you are muted, click the red Audio button so that it glows green.*

**Step 4: Chat Function**

The Control Panel includes a Chat pane where you can exchange messages with other attendees. You’ll see message notifications appear if your Control Panel is minimized to the Grab Tab.

- Use the To drop-down menu to select your recipients:
  - Select Everyone to send a public message to all participants.
  - Select Organizer(s) only to send a message only to organizers and co-organizers.
  - Select a specific individual to send a private message to just that person.
ATTACHMENT #3 – Summary of Current Ann Arbor Rate Structure

<table>
<thead>
<tr>
<th></th>
<th>Residential 1</th>
<th>Residential 2</th>
<th>Water Only**</th>
<th>Commercial Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rate is based on a single water meter used in a home</td>
<td>Rate when a second Water-Only meter is also used in a home</td>
<td>Rate for the second meter for non sewer water uses, such as for irrigation</td>
<td>(Locations may also have a second, Water Only** meter)</td>
</tr>
<tr>
<td>1-7 CCFs*</td>
<td>$1.55 per CCF</td>
<td>$1.55 per CCF</td>
<td>$5.89 per CCF</td>
<td>Tier 1 = $3.81 (peaking factor &lt;=5)</td>
</tr>
<tr>
<td>8-28 CCFs*</td>
<td>$3.37 per CCF</td>
<td>$3.37 per CCF</td>
<td>$5.89 per CCF</td>
<td>Tier 2 = $7.26 (peaking factor &gt;5&lt;8)</td>
</tr>
<tr>
<td>29-45 CCFs*</td>
<td>$5.89 per CCF</td>
<td>$3.37 per CCF</td>
<td>$5.89 per CCF</td>
<td>Tier 3 = $12.44 (peaking factor &gt;=8)</td>
</tr>
<tr>
<td>Over 46 CCFs*</td>
<td>$5.89 per CCF</td>
<td>$3.37 per CCF</td>
<td>$5.89 per CCF</td>
<td></td>
</tr>
<tr>
<td>Water Customer Charge</td>
<td>$11.25/quarter for 5/8th inch standard residential meter; charge varies by meter size</td>
<td>$11.25/quarter for 5/8th inch standard residential meter; charge varies by meter size</td>
<td>Residential: No charge</td>
<td>Customer charge varies by size of water meter</td>
</tr>
<tr>
<td></td>
<td>$4.58 per CCF</td>
<td>$4.58 per CCF</td>
<td>Commercial: Charge varies by size of meter</td>
<td></td>
</tr>
<tr>
<td>Sewer Service Rate per CCF*</td>
<td>$4.58 per CCF</td>
<td>No sewer fees</td>
<td>$4.58 per CCF</td>
<td></td>
</tr>
<tr>
<td>Sewer Customer Charge</td>
<td>$11.25/quarter for 5/8th inch standard residential meter; charge varies by meter size</td>
<td>$11.25/quarter for 5/8th inch standard residential meter; charge varies by meter size</td>
<td>No charge</td>
<td>Customer charge varies by size of water meter</td>
</tr>
</tbody>
</table>