



CITY OF HENDERSONVILLE WATER SEWER ADVISORY COUNCIL

Operations Center - Assembly Room | 305 Williams St. | Hendersonville NC 28792
Monday, October 24, 2022 – 6:00 PM

AGENDA

1. **CALL TO ORDER**

2. **PUBLIC COMMENT**

3. **APPROVAL OF MINUTES**

A. Approval of the August 15, 2022 Minutes

4. **OLD BUSINESS**

5. **NEW BUSINESS**

A. Stantec Water and Sewer Rate Study Presentation – *Drew Finley, Asst. to the Utilities Director*

B. Water Quality Update – *Ricky Levi, Water Treatment Plant Manager*

6. **ADJOURNMENT**

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CITY OF HENDERSONVILLE WATER SEWER ADVISORY COUNCIL

Operations Center - Assembly Room | 305 Williams St. | Hendersonville NC 28792
Monday, August 15, 2022 – 6:00 PM

MINUTES

Present: County Commissioner & Chairman Daniel Andreotta, City of Hendersonville Council Member & Vice Chair Jerry A. Smith Jr. J.D., City of Hendersonville Water/Sewer Customer Representative Chuck McGrady, Henderson County Water/Sewer Customer Representative Andrew Riddle, Village of Flat Rock Council Member David Dethero, Town of Fletcher Council Member Sheila Franklin, Town of Laurel Park Council Member Paul Hansen, City of Saluda Council Member Stan Walker, Town of Mills River Mayor Pro-Tem Randy Austin Chamber of Commerce Business Representative Wade Anderson, and Partnership for Economic Development Representative Carsten Erkel

Staff Present: Assistant City Manager Brian Pahle, City Clerk Angela Reece, Communications Manager Allison Justus, Budget Manager Adam Murr, Brent Detwiler, City Engineer, Lee Smith, Utilities Director, Adam Steurer, Assistant to Utilities Director, Drew Finley, and others.

Others Present: Laurel Park Town Manager Alex Carmichael, Henderson County Engineer Marcus Jones, City of Saluda City Manager Steve Orr

1. CALL TO ORDER

Chair Daniel Andreotta called the meeting to order at 6:00 p.m. and welcomed those in attendance.

2. PUBLIC COMMENT

There were no comments.

3. APPROVAL OF MINUTES

A. Approval of the April 25, 2022 Minutes - Angela Reece, City Clerk

Council Member Jerry A. Smith Jr., J.D. moved to approve the minutes of April 25, 2022, as presented. Council Member Chuck McGrady seconded. A unanimous vote of the Council Members present followed. Motion carried.

4. OLD BUSINESS

A. Halfway Tree Mobile Home Park Sewer Project – Brent Detwiler, City Engineer

City Engineer Brent Detwiler presented updates regarding the Halfway Tree Mobile Home Park sewer project to the Council. Mr. Detwiler discussed ongoing septic issues and advised staff has acquired easements and has taken ownership of several new lots. Mr. Detwiler stated the project is progressing and said the projected completion date with connections is the beginning of September. He clarified the connections would be first followed by septic tank removal.

5. NEW BUSINESS

A. Adoption of Annual Schedule of Meetings 2023

Council Member Chuck McGrady moved to approve the annual schedule of meetings as amended. Council Member Jerry A. Smith Jr., J.D. seconded. A unanimous vote of the Council Members followed. Motion carried.

The following Regular Meetings of the City of Hendersonville Water & Sewer Advisory Council are held **Quarterly on the fourth Monday of July, October, January, and April at 6:00 p.m.** in the Assembly Room of the City Operations Building located at 305 Williams St. Hendersonville NC unless otherwise noticed. The regular meetings will be conducted in person.

The following Water & Sewer Advisory Council meetings have been scheduled for the remainder of 2022 and 2023.

October 24, 2022

January 23, 2023

April 24, 2023

July 24, 2023

October 23, 2023

B. Capital Projects Update - Various Staff

Utilities Engineer Adam Steurer discussed capital projects and provided updates to Council. Mr. Steurer recalled construction beginning in the spring of 2022 on the French Broad River intake and pumping station. He reminded everyone the \$23.5M project is funded through a State Revolving Fund (SRF) low-interest loan and said the estimated completion for this project is mid-2024.

Mr. Steurer discussed the Ewart Reservoir #2 project stating the estimated completion is summer 2022 with a total cost of \$740,000. He said the project consisted of installation of a flexible membrane liner which will extend the service life and improve operations and maintenance.

Mr. Steurer discussed repairs and replacements to the Wastewater Treatment Facility (WWTF) ultraviolet (UV) improvements and aeration basin no.2 repair and rehabilitation projects stating bidding on both projects will begin in the fall. He said the approximate cost is \$1.8M for the WWTF and \$3.5M for the aeration basin repairs and said both projects will be funded through the American Rescue Plan (ARP) \$5.0M direct grant allocation

Mr. Steurer discussed the Wastewater Treatment Facility (WWTF) master plan stating this will be funded through a \$400,000 grant and the results will be used to inform the capital improvement plan through the year 2050.

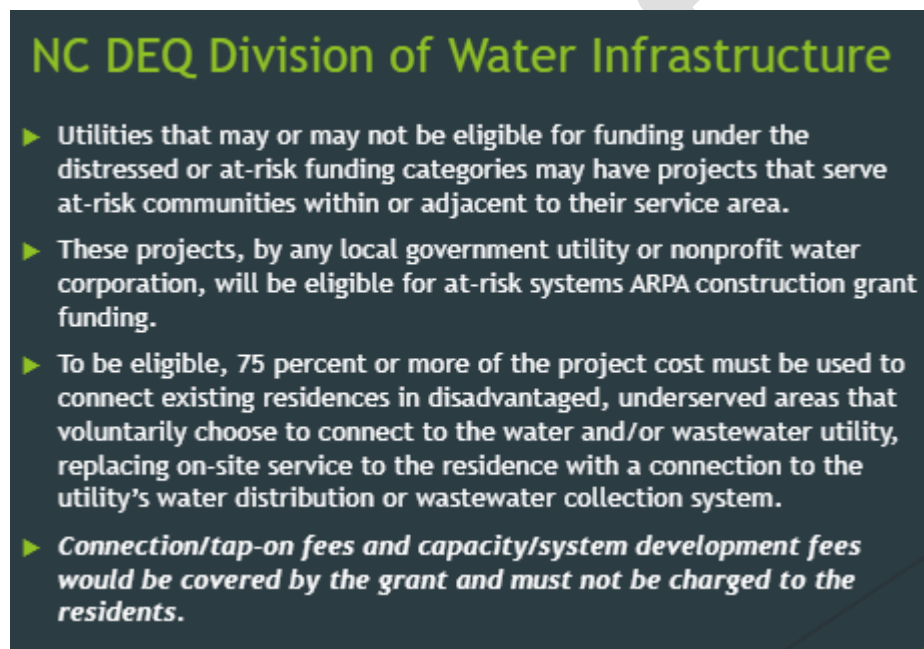
Mr. Steurer discussed the North Greenwood Neighborhood Water Replacement in Etowah stating this project will begin in early fall and said the project will replace approximately 5,600 feet of existing water main due to excessive pipe breaks/maintenance burdens in the project area.

C. Presentation Regarding Grant Application for Dana Community Water Project – Brent

Detwiler, City Engineer

City Engineer Brent Detwiler discussed the Dana Community water project and said grant funding has become available for underserved areas through the NCDEQ Division of Water Infrastructure. Mr. Detwiler discussed the Academy Road area and well contamination from pesticide use. Mr. Detwiler advised there may be additional contamination in other area wells and said samples collected by NCDEQ consisted of elevated nitrates which may indicate septic or animal waste that has an effect. He said the project size would consist of approximately 250 to 350 sites and said the connection fees would be paid by grant funding if awarded. He said the approximate project cost is \$300-\$400M.

Grant application project criteria are as follows:



NC DEQ Division of Water Infrastructure

- ▶ Utilities that may or may not be eligible for funding under the distressed or at-risk funding categories may have projects that serve at-risk communities within or adjacent to their service area.
- ▶ These projects, by any local government utility or nonprofit water corporation, will be eligible for at-risk systems ARPA construction grant funding.
- ▶ To be eligible, 75 percent or more of the project cost must be used to connect existing residences in disadvantaged, underserved areas that voluntarily choose to connect to the water and/or wastewater utility, replacing on-site service to the residence with a connection to the utility's water distribution or wastewater collection system.
- ▶ *Connection/tap-on fees and capacity/system development fees would be covered by the grant and must not be charged to the residents.*

Mr. Detwiler reminded everyone that the Dana area is unincorporated (not in ETJ). After much discussion Chuck McGrady clarified the motion before Council is for staff to seek permission to apply for the grant but said the County would also need to grant permission pursuant to the current agreement.

Mr. McGrady and other Council members expressed reservation due to the land being open farmlands and agreed that any water extension project would bring growth to the area. Mr. Andreotta restated objection to county residents being charged more due to the grant funding.

Council Member Chuck McGrady moved that the Water and Sewer Advisory Council endorse the grant application for the Dana Community Water Project. Council Member Jerry A. Smith Jr., J.D. seconded the motion. A unanimous vote of Council members followed. Motion carried.

Updates – Chair Daniel Andreotta reiterated his preference to protect farmlands and discussed a sewer project in the eastern part of county.

Andrew Riddle agreed with Chairman Andreotta and expressed his preference for infill of lots within the city to capitalize upon the water and sewer that is already in place. He stated he supports density and not adding to the maintenance.

6. **ADJOURNMENT**

There being no further business the meeting was adjourned at 6:47 p.m.

ATTEST:

Angela L. Reece, City Clerk

Daniel Andreotta, County Commissioner & Chairman



CITY OF HENDERSONVILLE AGENDA ITEM SUMMARY

SUBMITTER: Drew Finley **MEETING DATE:** 10/24/2022

AGENDA SECTION: NEW BUSINESS **DEPARTMENT:** Water & Sewer

TITLE OF ITEM: Stantec Water and Sewer Rate Study Presentation – *Drew Finley, Asst. to the Utilities Director*

SUGGESTED MOTION(S):

N/A. Presentation Only.

SUMMARY:

The City of Hendersonville has partnered with Stantec’s Financial Services Team to complete a water and sewer rate study and system development fee analysis. Stantec’s Financial Services Team specializes in utility financial management and has provided their services to over 30 communities in the State of North Carolina alone. Stantec also maintains a robust national and international consulting presence. The City and Stantec have worked together in recent months to collect relevant data and metrics to support the rate study. At this time, Stantec will provide an overview presentation on the rate study process, opportunities for guidance, and desired outcomes.

A critical component of this rate study’s success is the incorporation of stakeholder feedback. The City and Stantec value the input of both the City Council and the Water & Sewer Advisory Council on the future of the City’s water and sewer rates. Stantec is presenting this overview presentation to both bodies and seeks input from members.

BUDGET IMPACT: TBD

Is this expenditure approved in the current fiscal year budget? N/A

If no, describe how it will be funded. N/A

ATTACHMENTS:

1. Stantec Water and Sewer Rate Study Overview Presentation



City of Hendersonville Water and Sewer Rate Study Overview

October 26, 2022



Agenda

Item A.

2

- 1) Overview of Rate Study Process
- 2) Key Challenges
- 3) Review of Current Rate Structures
- 4) System Development Fees
- 5) Project Schedule





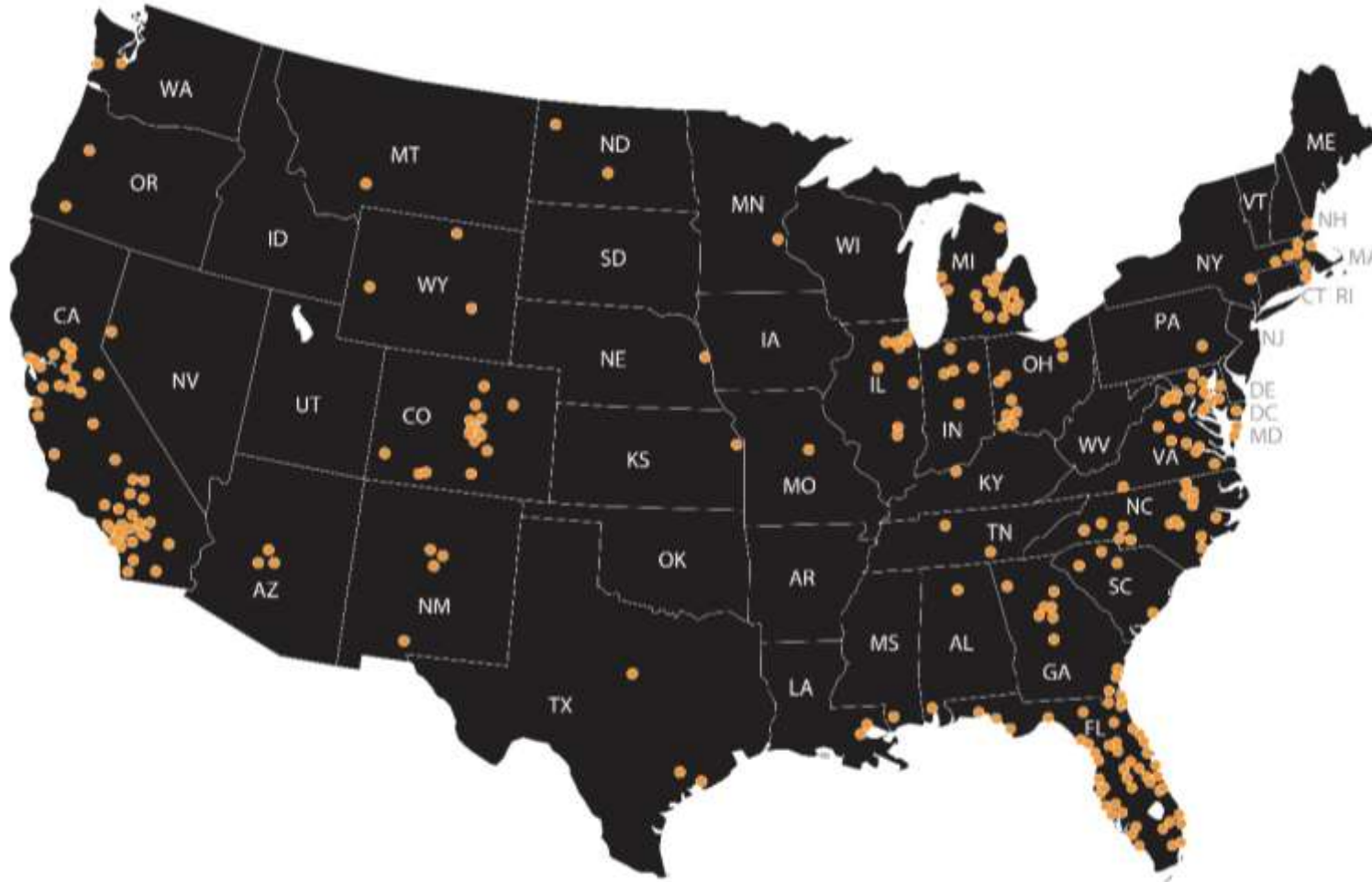
Introduction: Stantec's Financial Services Team

Item A.

3

30+

Communities served
by Stantec Financial
Services in North
Carolina



>360

Communities served,
accounting for 25+%
of the US population

400+

Combined years
of **experience**

1.5K+

Studies in the last
10 years

35+

Specialists in utility
financial management

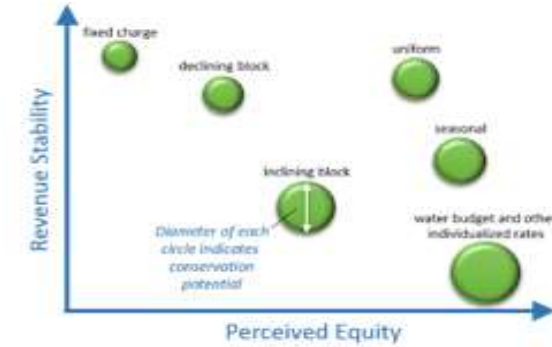
>550

Utilities in our
benchmarking
database

\$4B+

Debt supported in
past five years

9



Financial Plan

How Much?

Defines how much total revenue is needed each year

Cost of Service

From Whom?

Defines proportional revenue recovery between customer classes

Rate Design

How to Collect?

Structure of how revenues are recovered by class



Revenue Requirements

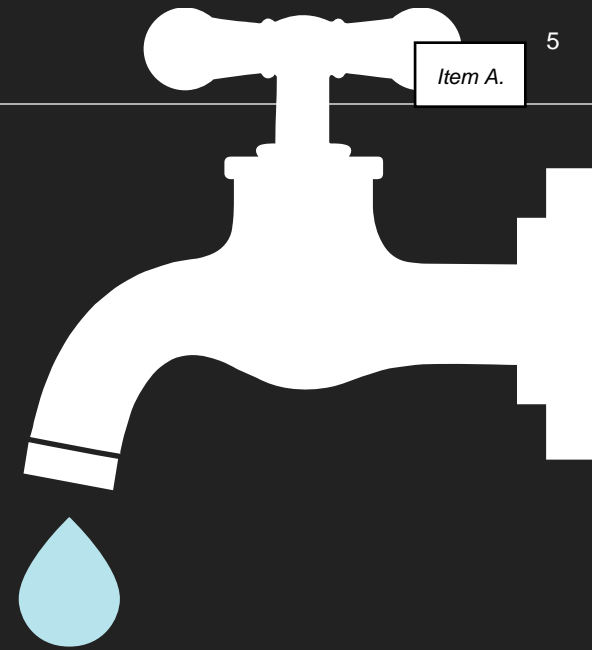
- Forecast of system operating expenditures
- Forecast of capital investments including existing debt obligations

Revenue Forecast

- Forecast of system demands and customer counts
- Development of revenue forecast with existing rates and fees

Evaluate Key Metrics

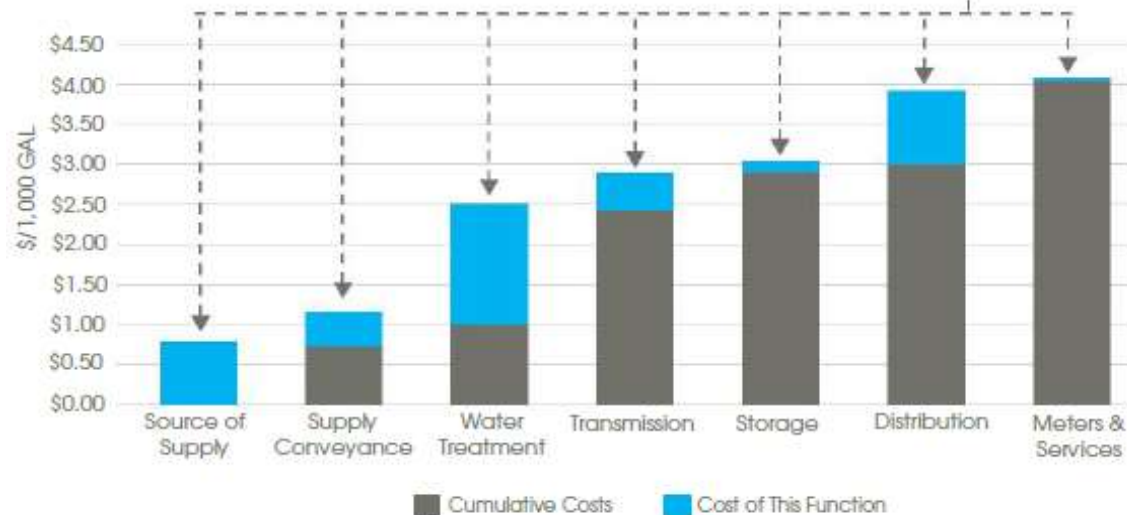
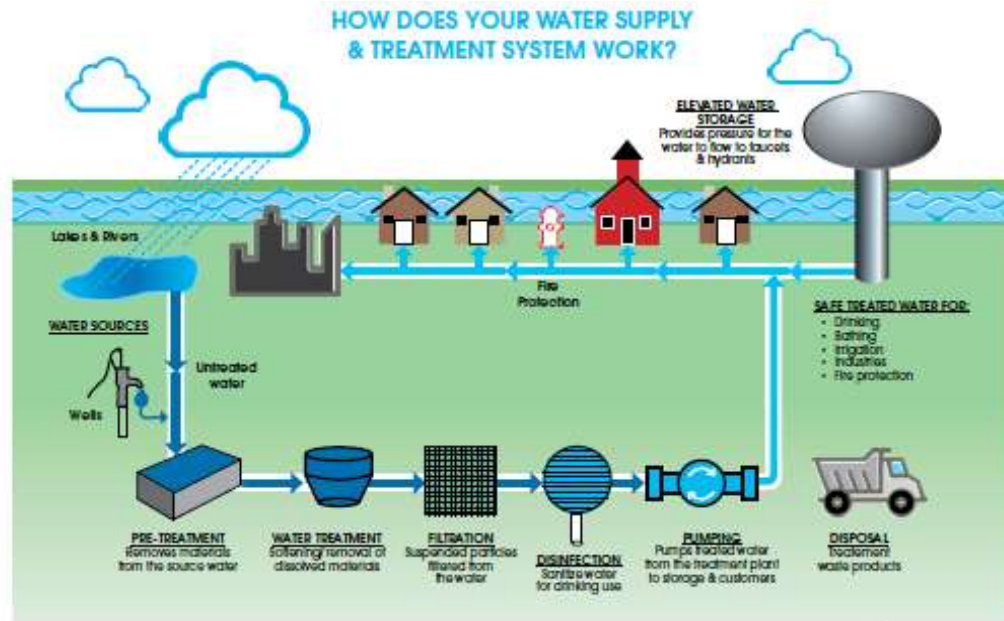
- Sufficiency of revenue to meet revenue requirements
- Ability to fall within range of reserve targets
- Meet debt service coverage requirements



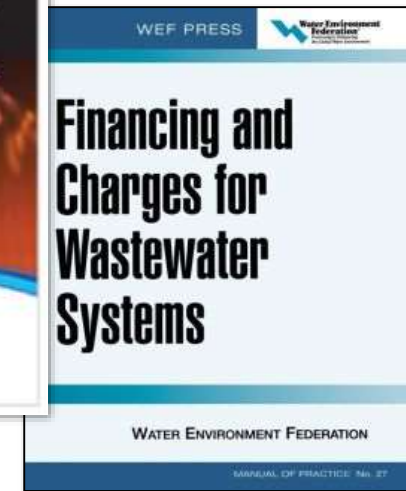
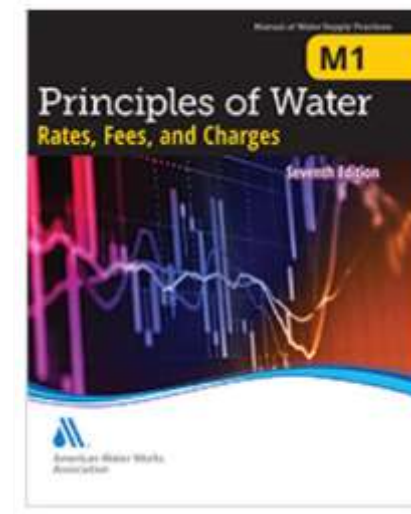
Capital Costs

Debt Service

Operating Costs



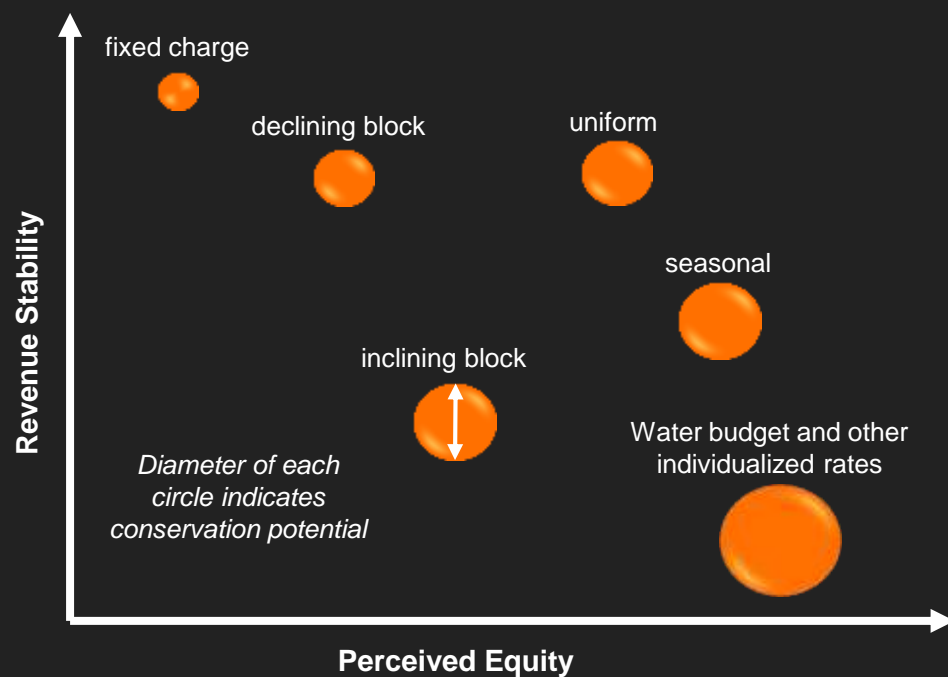
Goal: Determine the equitable distribution of revenue to be recovered by customer class based on the **cost to serve** each class



Use of Industry Standard Approaches



Rate Design → How costs are specifically recovered from customers



Requires Consideration of Pricing Goals and Objectives

Revenue Stability

VS

Conservation Signal

Revenue Stability

VS

Low Income Impacts

Alignment with Cost of Service

VS

Administrative Burden

Affordability

VS

Equity



Key Challenges

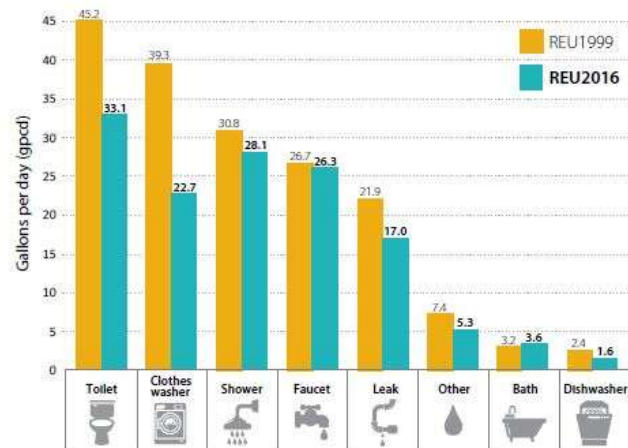


Current Industry Challenges

Item A.

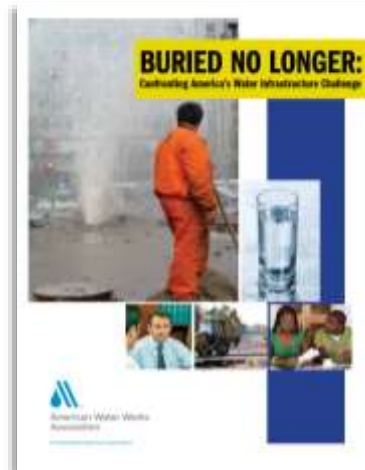
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Reductions in Use / Revenue Impacts



22%
DECREASE
PER HOUSEHOLD
DAILY WATER USE
1999 TO 2016

Aging Infrastructure



Regulatory and Resilience



Aging Workforce



Customer Affordability



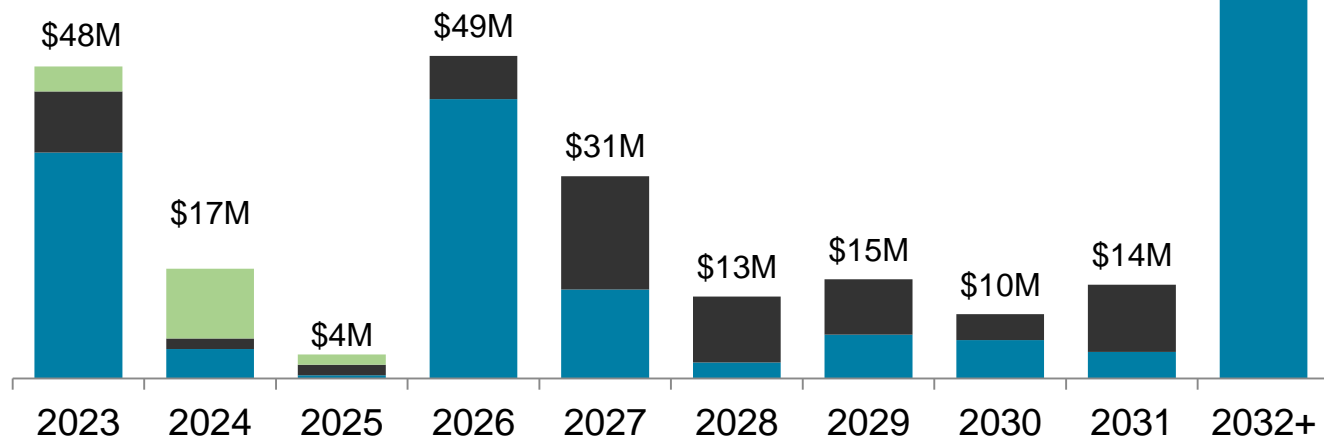
Operational Costs Increases





Primary Challenge Facing City's Utilities

\$292 Million Water and Sewer Capital Investments



- Equipment - \$16M
- Repair / Replacement - \$74M
- Capacity and Expansion - \$202M



Impacts on Water
and Sewer Rates
and Affordability of
Service



Water and Sewer Structures



Pricing Goals and Objectives

Item A.

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Customer Affordability - Ability to provide service for basic needs at affordable prices



Rate and Revenue Stability - Limit volatility in annual revenues and rate adjustments



Cost of Service Based - Alignment between use of service and utility bill



Administrative and Customer Understanding - Ability to administrate and customer to understand



Legal Defensibility - Comply with industry standard and legal requirements



City's Current Water Rate Structure

Item A.

13

Water Base Charges	Inside City	Outside City
3/4"	\$8.32	\$11.23
1"	\$9.71	\$13.11
1.5"	\$13.15	\$17.75
2"	\$17.55	\$23.69
3"	\$27.88	\$37.64
4"	\$42.60	\$57.51
6"	\$79.40	\$107.19
8"	\$123.56	\$166.81

Water Usage Rates (per 1,000 gallon)	Inside City	Outside City
Residential		
0 to 6,000 gal.	\$4.48	\$6.05
6,001 to 14,000 gal.	\$4.93	\$6.65
14,001 gal. and over	\$5.60	\$7.56
Commercial/Industrial		
0 to 40,000 gal.	\$4.48	\$6.05
40,001 to 200,000 gal.	\$4.28	\$5.78
200,001 gal. and over	\$3.80	\$5.13
Irrigation		
0 to 40,000 gal.	\$5.60	\$7.56
40,001 gal. and over	\$6.10	\$8.06
Municipal/Wholesale	\$4.48	
Bulk Water	\$7.56	

19



Base charge provides revenue stability and fixed cost recovery

- Potential to increase the portion of revenues collected from base charge
- Potential to consider alternative scaling between meters

Residential/Irrigation inclining water block rates promote conservation

- Potential modifications to tier quantities and differences in pricing between tiers
 - Creation of a “life-line” tier
 - Enhance conservation incentive

Commercial/Industrial declining water block rates are less common

- City plans to move to a uniform rate by FY 2024

City provides water service to a significant number of water accounts outside the City acting as a regional service provider

- City plans to move to eliminate differential by 2030



Example Pricing Considerations

Example Rate Structure Changes

Consideration of Pricing Goals and Objectives

Increase Revenue Collected in Base Charges

Increase Revenue Stability

vs

Decrease Conservation Signal

Add a “Life-Line” Tier

Enhance Affordability

vs

Increase Administrative Burden

Increase Water Tier Pricing Differentials

Enhance Conservation Signal

vs

Decrease Revenue Stability

Elimination of Commercial Declining Block

Enhance Alignment with Cost of Service

vs

Impact on Large Commercial Users



City's Current Sewer Rate Structure

Item A.

16

Sewer Base Charges	Inside City	Outside City
3/4"	\$8.92	\$13.38
1"	\$11.25	\$16.88
1.5"	\$17.05	\$25.58
2"	\$24.03	\$36.05
3"	\$40.44	\$60.66
4"	\$63.89	\$95.84
6"	\$122.45	\$183.68
8"	\$192.75	\$289.13

Sewer Usage Rates (per 1,000 gallon)	Inside City	Outside City
Residential / Commercial		
All Usage	\$6.33	\$9.50
Public Schools		
All Usage	\$6.33	
Wholesale / Municipal / Henderson County / Internal		
All Usage	\$9.50	



Average Monthly Household Spending

Item A.

17



\$150
on electricity



\$105
on cell phone
service



Water: **\$22**
Sewer: **\$28**
Total: \$50
Hendersonville



Water: **\$27**
Sewer: **\$33**
Total: \$60
NC Average

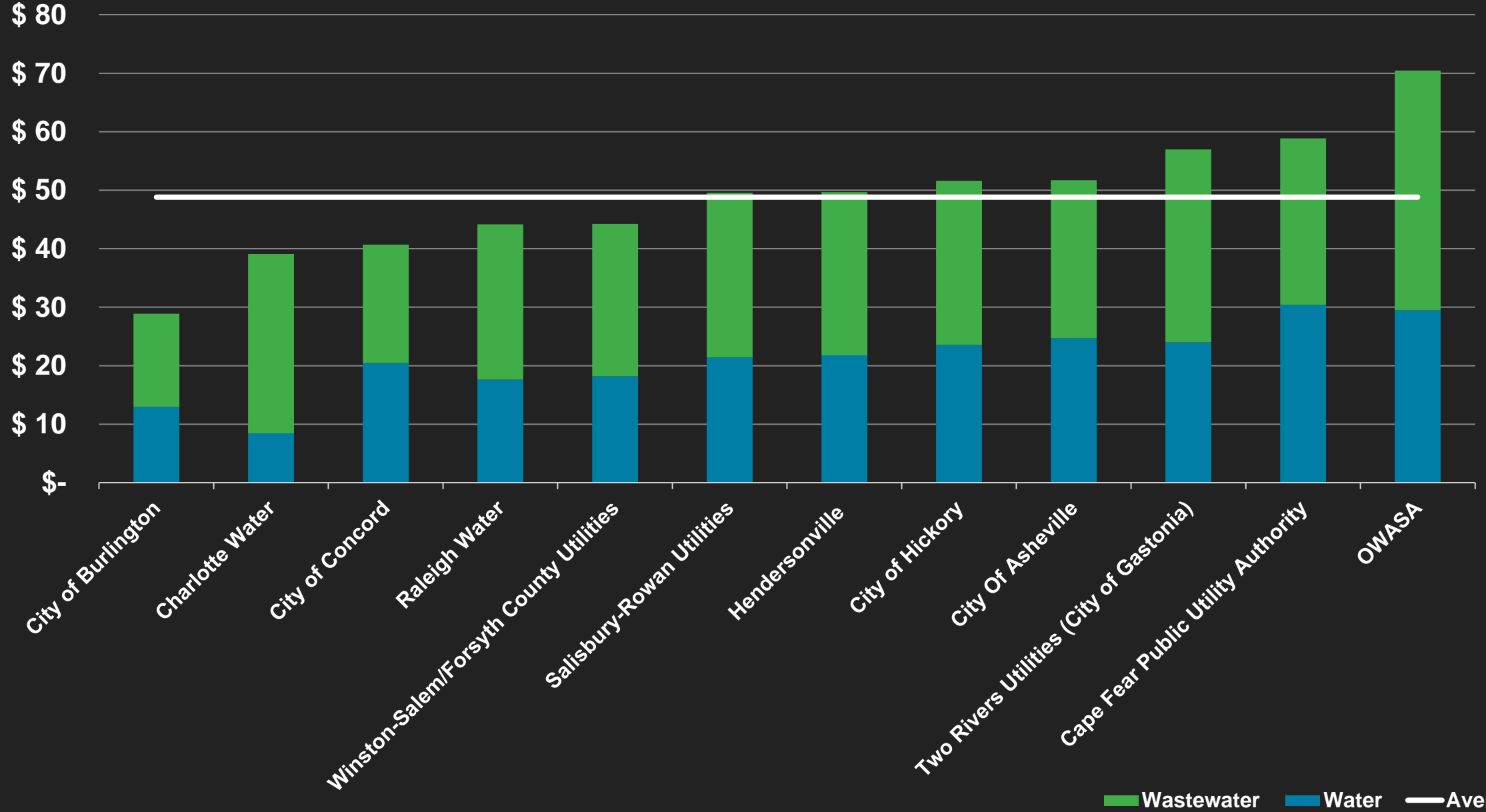
- US Energy Information Administration, 2022 Electricity Reports
- US Bureau of Labor Statistics, Consumer Expenditure Survey, August 2022
- Current inside city residential rates for 3,000 gallons per month



Residential Bill Comparisons (3,000 gallon per month)

Item A.

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System Development Fees



- Fees charged for new connections joining the water and sewer system
- Intended to recover cost of constructing water and sewer capacity, “growth pays for growth”
- Fees are applied based on units of service (representing potential demand on utility system)
- Fees are legislated in North Carolina
 - Public Water and Sewer System Development Fee Act (NC General Statutes - Chapter 162A Article 8) approved July 2017

Methodology	Description	Appropriate For
Buy-In Method	Fees are based on cost of constructing existing utility system	System with ample existing capacity to sell
Incremental Cost Method	Fees are based on planned growth-related capital improvements	System with limited or no existing capacity to sell
Combined Method	Fees are based on cost of existing system and planned capital improvements	System with existing capacity to sell and with planning growth-related capital projects



- SDFs must be applied based on units of service (represents potential demand)
- SDFs are often scaled by meter size based on hydraulic capacity of meter
- Common to use number of bedrooms for scaling single family residential

Meter size	Equivalent Residential Units (ERU)
3/4"	1.00
1"	1.67
1 1/2"	3.33
2"	5.33
3"	11.67
4"	21.00
6"	43.33



- SDFs allow community to recover at least a portion of cost of constructing system infrastructure
- Lack of SDFs places full cost of infrastructure on user rates
- SDFs have potential impact on development
- Requirements and limitations on the use of SDFs given legislation
 - Separate tracking of revenues from SDFs
 - Limitations on use of proceeds depending on approach



Project Schedule



Financial Plan

Draft
Complete



**Cost of Service and
System Development
Fees**

November



Rate Design

Early
December



**Agreed Upon
Procedures Letter
for Bond Issuance**

Late
December



**Provide Initial
Recommendations**

February



David Hyder

Senior Principal

(202) 585-6391

David.Hyder@Stantec.com

Additional Questions/Discussion



CITY OF HENDERSONVILLE AGENDA ITEM SUMMARY

SUBMITTER: John Connet **MEETING DATE:** 10/24/2022
AGENDA SECTION: NEW BUSINESS **DEPARTMENT:** Administration
TITLE OF ITEM: Water Quality Update – *Ricky Levi, Water Treatment Plant Manager*

SUGGESTED MOTION(S):

EnterMotionHere

SUMMARY:

Water Treatment Plant Manager Ricky will provide an update regarding water quality and recent media coverage regarding PFOS.

BUDGET IMPACT: \$

Is this expenditure approved in the current fiscal year budget? EnterTextHere

If no, describe how it will be funded. EnterTextHere

ATTACHMENTS:

EnterTextHere