CITY OF HENDERSONVILLE
WATER SEWER ADVISORY COUNCIL
Operations Center - Assembly Room | 305 Williams St. | Hendersonville NC 28792
Monday, April 24, 2023 – 6:00 PM

MINUTES

Present: City of Hendersonville Council Member & Chair Jerry Smith, County Commissioner & Vice Chairman Daniel Andreotta, City of Hendersonville Council Member Debbie Roundtree, 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, and Partnership for Economic Development Representative Carsten Erkel

Staff Present: City Manager John Connet, Assistant City Manager Brian Pahle, Budget Manager Adam Murr, City Engineer Brent Detwiler, Utilities Director Lee Smith and Utilities Engineer Adam Steurer and others.

Others Present: Stantec Senior Principal David Hyder

1. CALL TO ORDER

Chairman Jerry Smith called the meeting to order at 6:00 p.m. and welcomed those in attendance.

2. APPROVAL OF AGENDA

Chuck McGrady moved to approve the agenda as presented. A unanimous vote of the Council Members present followed. Motion carried.

3. APPROVAL OF MINUTES

A. Approval of the January 23, 2023 Minutes.

Paul Hansen moved to approve the minutes of January 23, 2023 as presented. A unanimous vote of the Council Members present followed. Motion carried.

4. OLD BUSINESS

There was no Old Business.

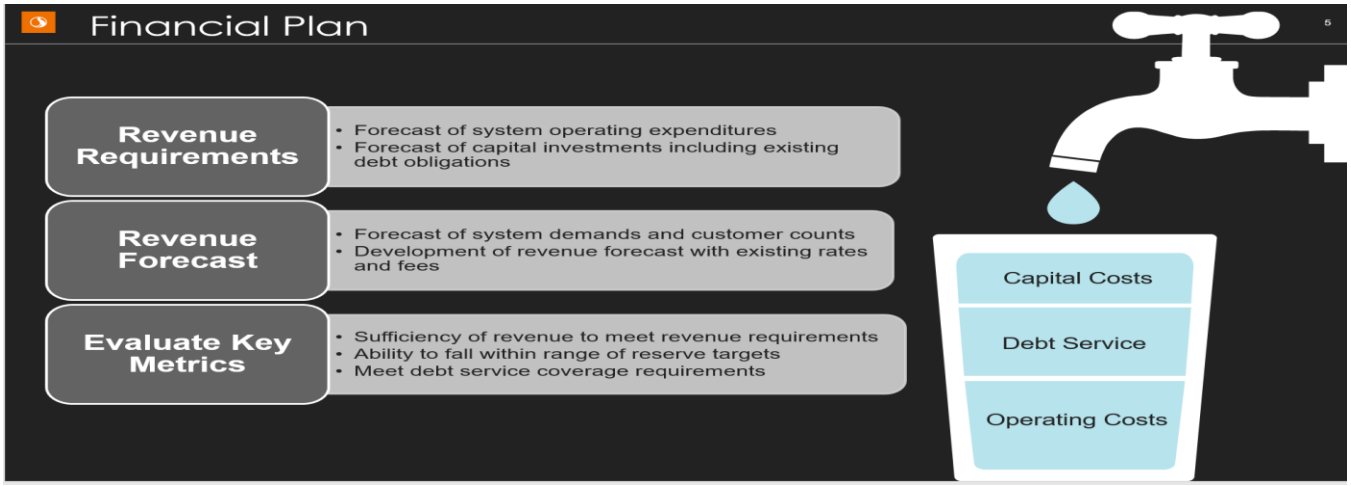
5. NEW BUSINESS

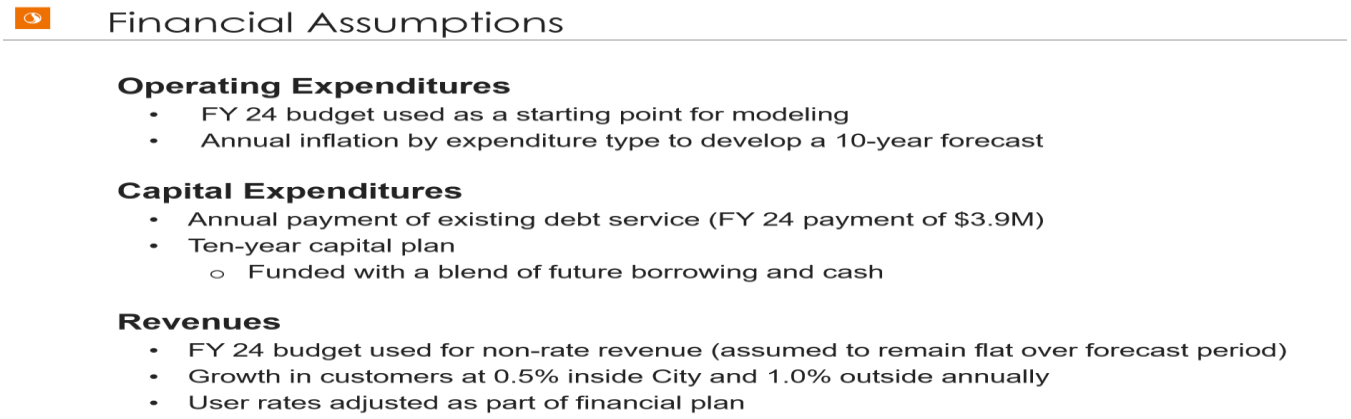
A. Stantec Presentation on 2023 W&S Rate Study - *Adam Murr, Budget Manager*

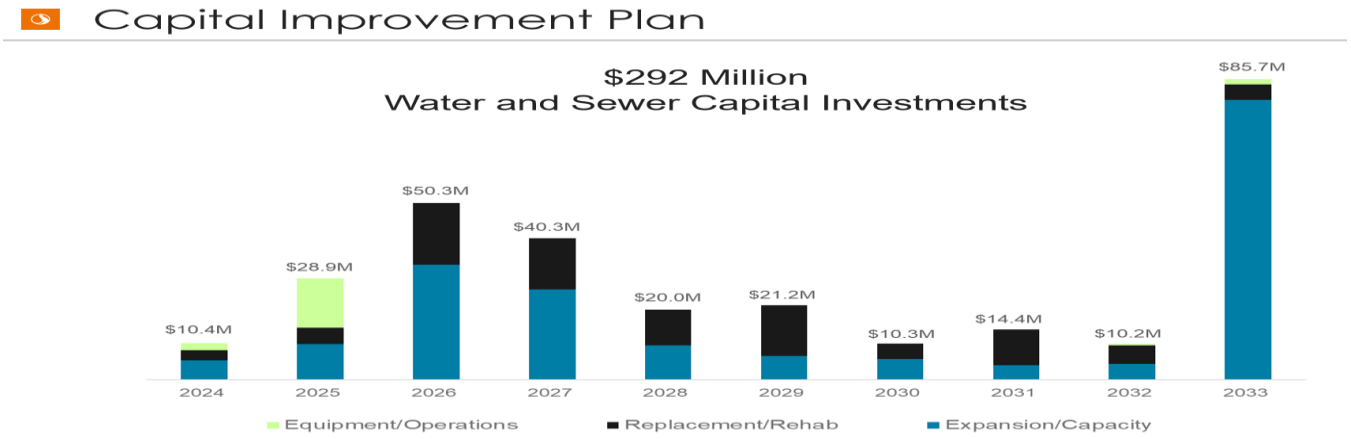
The City of Hendersonville has partnered with Stantec's Financial Services Team to complete a water and sewer rate study and system development fee analysis. Stantec's Financial Services Team specializes in utility financial management and has provided their services to over 30 communities in the State 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. Nearing the end of the study, Stantec will provide an update on findings and recommendations to be considered by City Council upon budget adoption at the 06/01/2023 regular meeting of the City Council.

Dave Hyder, Stantec Senior Principal gave a PowerPoint presentation to Council.



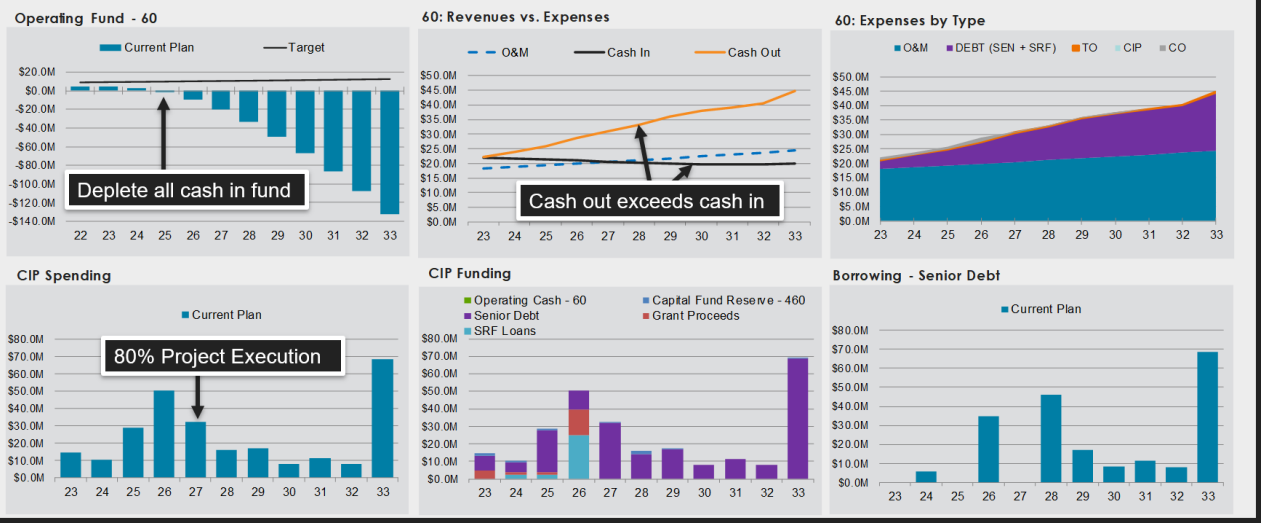




No Rate Adjustments

Fail Debt Coverage Tests

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2027	FY 2033
Water Rate Plan	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0%	0.0%
Wastewater Rate Plan	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0%	0.0%
Debt Service Coverage Test A	1.44	0.81	0.40	0.08	(0.16)	(0.37)	(0.53)	(0.74)	(0.94)	(1.13)	(1.12)		
Debt Service Coverage Test B	1.21	0.65	0.34	0.14	0.01	(0.06)	(0.12)	(0.17)	(0.20)	(0.22)	(0.21)		
Total Single Family Bill	$62.33	$62.33	$62.33	$62.33	$62.33	$62.33	$62.33	$62.33	$62.33	$62.33	$62.33		

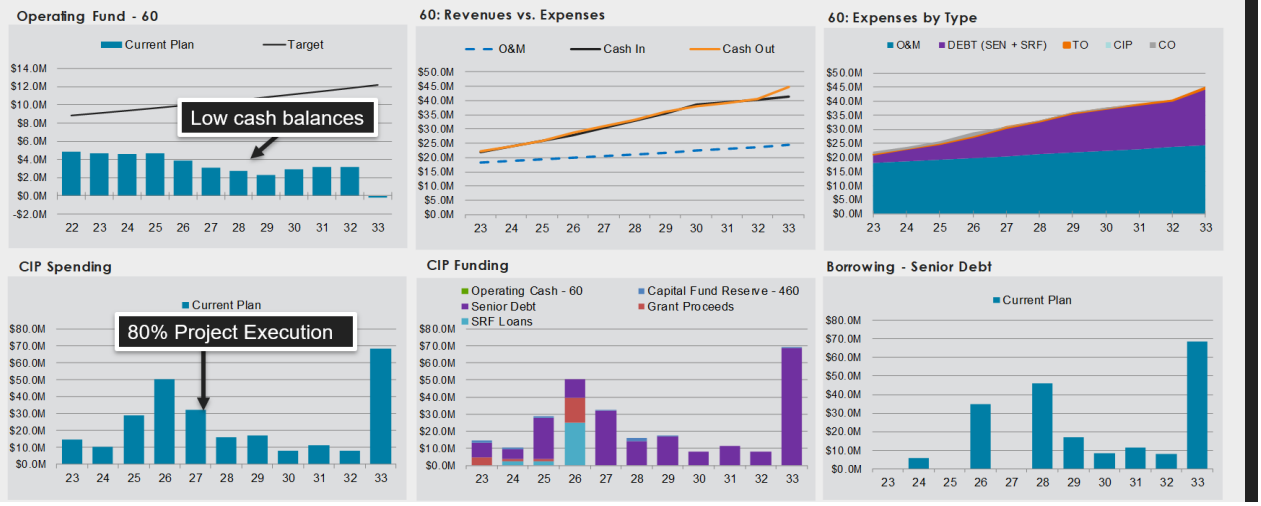


Prior Rate Plan

Projected revenue increases

Fail Debt Coverage Tests

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2027	FY 2033
Water Rate Plan	0.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	2.00%	2.00%	2.00%	57.3%	130.0%
Wastewater Rate Plan	0.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	2.00%	2.00%	2.00%	30.9%	67.0%
Debt Service Coverage Test A	1.44	1.27	1.21	1.08	0.94	0.94	0.91	0.98	0.94	0.92	0.75		
Debt Service Coverage Test B	1.21	1.14	1.11	1.03	0.92	0.95	0.93	1.01	0.97	0.95	0.78		
Total Single Family Bill	$62.33	$67.77	$73.71	$80.23	$87.34	$95.15	$103.74	$113.13	$115.39	$117.71	$119.39		

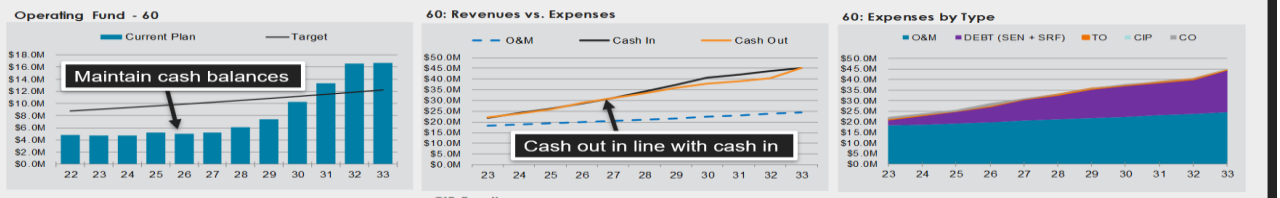


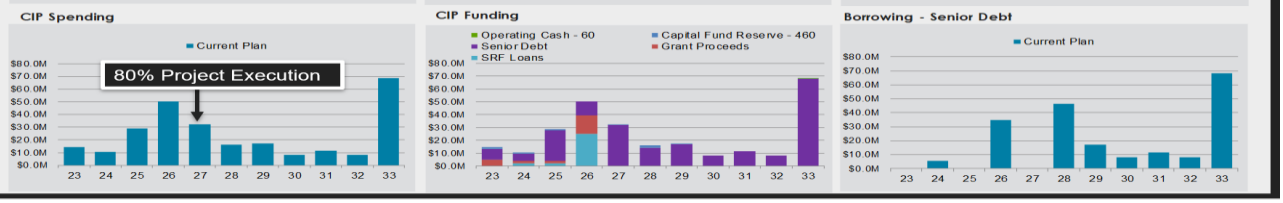
Financial Management Plan

Meet debt coverage tests

Projected revenue increases

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2027	FY 2033
Water Rate Plan	0.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	3.00%	3.00%	3.00%	51.9%	120.3%
Wastewater Rate Plan	0.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	3.00%	3.00%	3.00%	57.3%	134.4%
Debt Service Coverage Test A	1.44	1.31	1.28	1.17	1.05	1.07	1.06	1.17	1.18	1.20	1.03		
Debt Service Coverage Test B	1.21	1.18	1.18	1.10	1.01	1.05	1.04	1.15	1.14	1.13	0.96		
Total Single Family Bill	$62.33	$69.59	$77.71	$86.76	$96.87	$108.19	$120.81	$134.89	$138.94	$143.10	$146.25		





Financial Plan Summary

- Revenue increases from rates are required in FY 24 to meet debt coverage and cash balances
- Recommended adjustments
  - Water revenue increase: 11.00%
  - Sewer revenue increase: 12.00%
- Customer bill impacts will vary based on rate structure recommendations
- Future revenue increases will be required at similar levels
- Financial plan should be evaluated annually based on capital spending, growth, & other factors

Cost of Service

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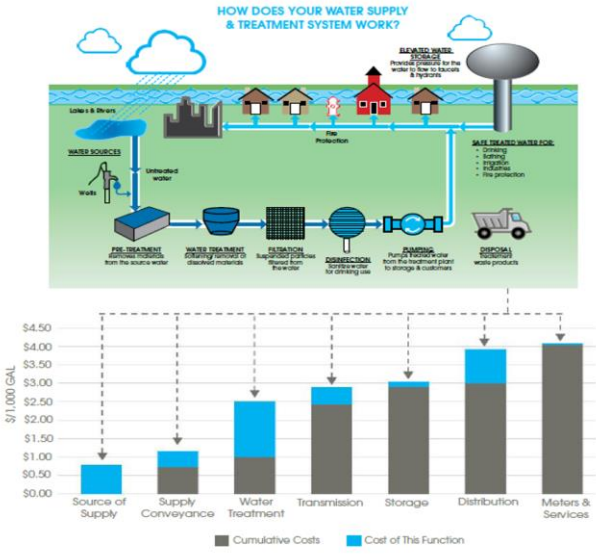
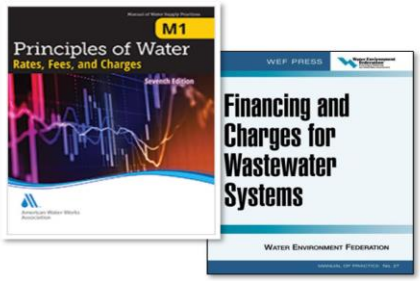
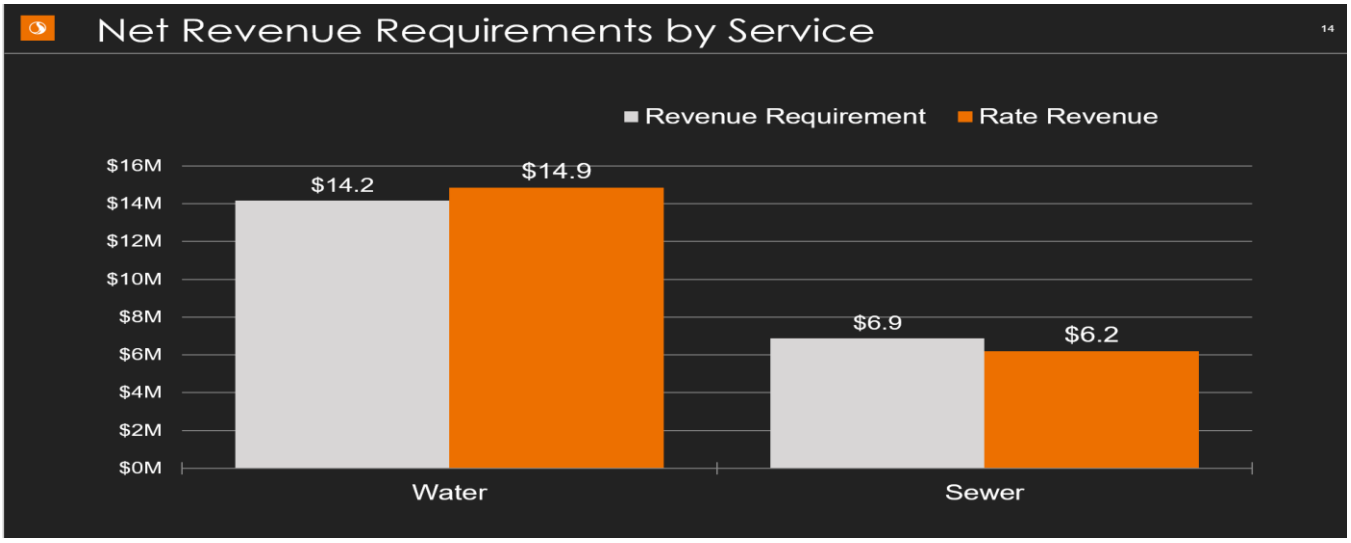
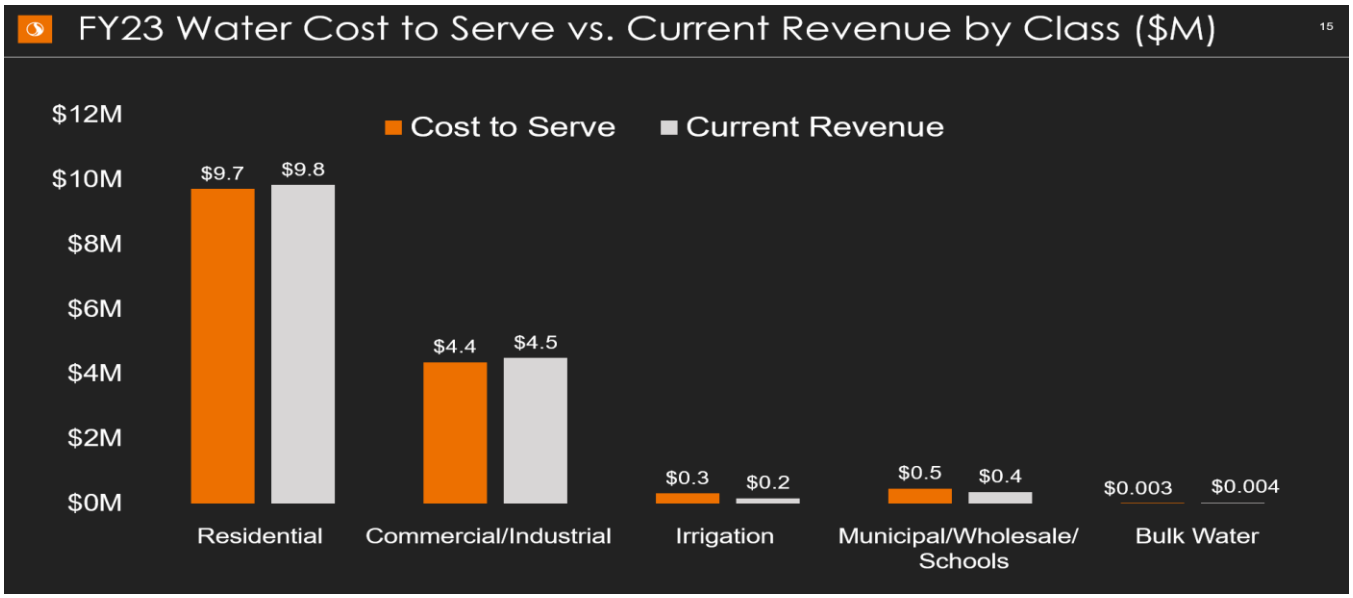


Goal: Determine the equitable distribution of revenue to be recovered by customer class based on the **cost to serve** each class



Use of Industry Standard Approaches





Cost of Service Summary

- Modest misalignment between water and sewer costs and revenue generated (~ 3% of revenues)
  - Recommend balancing of water and sewer cost of service and revenues over time
  - Financial plan reflects this balancing

- Customer class cost of service is **closely** aligned with recovery by class
  - Rate structure modifications designed to fully align with the cost of service

Pricing Goals and Objectives

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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 Rates

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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

Public Schools	
Base Charge Per Acct	$8.32
All Usage	$4.48

Water Volumetric 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	

City's Current Sewer Rates

20

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 Volumetric Rates (per 1,000 gallon)	Inside City	Outside City
Residential / Commercial		
All Usage	$6.33	$9.50

Public Schools	
Base Charge Per Acct	$8.92
All Usage	$6.33

Municipal	
Base Charge Per Acct	$8.92
All Usage	$9.50

Rate Structure Recommendations

Water and Sewer Base Charge

- Increase the portion of revenues collected from base charge
- Scale fixed charges consistent with industry standards

Residential / Irrigation Water Rates

- Modify the tier quantities and differences in pricing between tiers
  - Creation of a "life-line" tier – increased customer bill control / affordability
  - Enhance conservation incentive – aligns with cost of service

Commercial / Industrial Water Rates

- Move to a uniform rate in FY 2024

Water Base Charges

Recommended FY 24 Water Base Charges

Meter Size	Inside City Account Charge	Inside City RTS Charge	Inside City Total Base Charge	Outside City Total Base Charge
3/4"	$6.73	$3.23	$9.96	$12.95
1"	$6.73	$5.39	$12.12	$15.75
1.5"	$6.73	$10.77	$17.50	$22.76
2"	$6.73	$17.24	$23.97	$31.16
3"	$6.73	$37.71	$44.44	$57.77
4"	$6.73	$64.65	$71.38	$92.79
6"	$6.73	$145.46	$152.19	$197.84
8"	$6.73	$172.39	$179.12	$232.86

FY 23 Base Charges

Inside City	Outside City
$8.32	$11.23
$9.71	$13.11
$13.15	$17.75
$17.55	$23.69
$27.88	$37.64
$42.60	$57.51
$79.40	$107.19
$123.56	$166.81

Recommended base charges along with recommend volumetric rates would generate a 11% increase in water revenues

Water Volumetric Rates: Life-line Tier

23

Addition of an initial quantity of water for basic indoor water needs at a lower rate

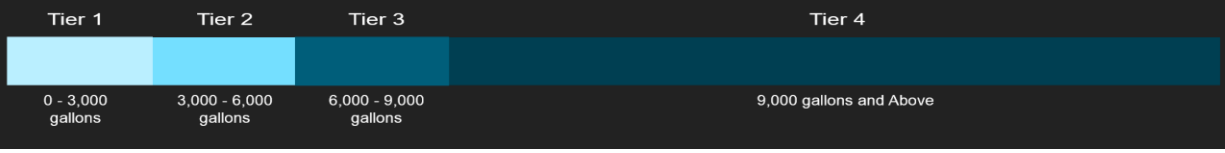
Life-line Tier = 3,000 gallons

Residential Water Usage Tiers

24

Current Monthly Water Tiers

Recommended Monthly Water Tiers



Water Volumetric Rates

25

Recommended FY 24 Water Volumetric Rates

Water Volumetric Rates (per 1,000 gallon)	Rate Differential	Inside City	Outside City	
Residential				
0 to 3,000 gal.	0.75	$3.76	$4.89	Addition of Life-line Tier / Enhanced Conservation
3,001 to 6,000 gal.	1.00	$5.01	$6.51	
6,001 to 9,000 gal.	1.25	$6.26	$8.14	
9,001 gal. and over	1.50	$7.52	$9.77	
Commercial/Industrial				
0 to 50,000 gal.	1.00	$5.01	$6.51	Transition to Uniform Rates
50,001 to 100,000 gal.	1.00	$5.01	$6.51	
100,001 gal. and over	1.00	$5.01	$6.51	
Irrigation				
0 to 40,000 gal.	2.00	$10.02	$13.03	Enhanced Conservation
40,001 gal. and over	2.10	$10.52	$13.68	
Municipal/Wholesale/Public Schools		$5.01		
Bulk Water		$9.77		

Sewer Base Charges

26

Recommended FY 24 Sewer Base Charges

Meter Size	Inside Account Charge	Inside RTS Charge	Inside City Total Base Charge	Outside City Total Base Charge
3/4"	$7.60	$3.56	$11.16	$16.74
1"	$7.60	$5.93	$13.53	$20.30
1.5"	$7.60	$11.87	$19.47	$29.20
2"	$7.60	$18.99	$26.59	$39.88
3"	$7.60	$41.54	$49.14	$73.71
4"	$7.60	$71.21	$78.81	$118.22
6"	$7.60	$160.23	$167.83	$251.74
8"	$7.60	$189.90	$197.50	$296.25

FY 23 Base Charges

Inside City	Outside City
$8.92	$13.38
$11.25	$16.88
$17.05	$25.58
$24.03	$36.05
$40.44	$60.66
$63.89	$95.84
$122.45	$183.68
$192.75	$289.13

Recommended base charges along with recommend volumetric rates would generate a 12% increase in sewer revenues

Sewer Volumetric Rates

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Recommended FY 24 Sewer Rates

Sewer Volumetric Rates (per 1,000 gallon)	Inside City	Outside City
Residential / Commercial		
All Usage	$6.88	$10.32
Wholesale / Municipal		
All Usage	$10.32	

Public Schools	
Base Charge Per Acct	$11.16
All Usage	$6.88

Municipal	
Base Charge Per Acct	$11.16
All Usage	$10.32

FY 23 Sewer Rates

Sewer Volumetric Rates (per 1,000 gallon)	Inside City	Outside City
Residential / Commercial		
All Usage	$6.33	$9.50
Wholesale / Municipal		
All Usage	$9.50	

Public Schools	
Base Charge Per Acct	$8.92
All Usage	$6.33

Municipal	
Base Charge Per Acct	$8.92
All Usage	$9.50

Average Monthly Household Spending

$150
on electricity

$105
on cell phone service

Water: **$22**
Sewer: **$28**
Total: $50
Hendersonville
(Inside City Current)

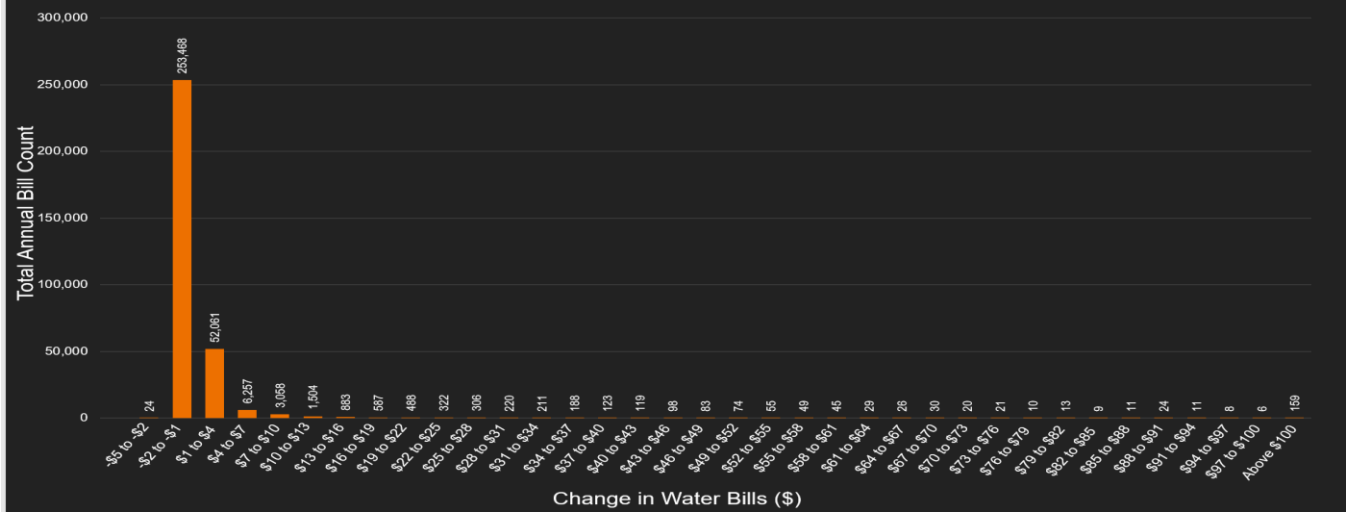
Water: **$21**
Sewer: **$32**
Total: $53
Hendersonville
(Inside City Proposed FY24)

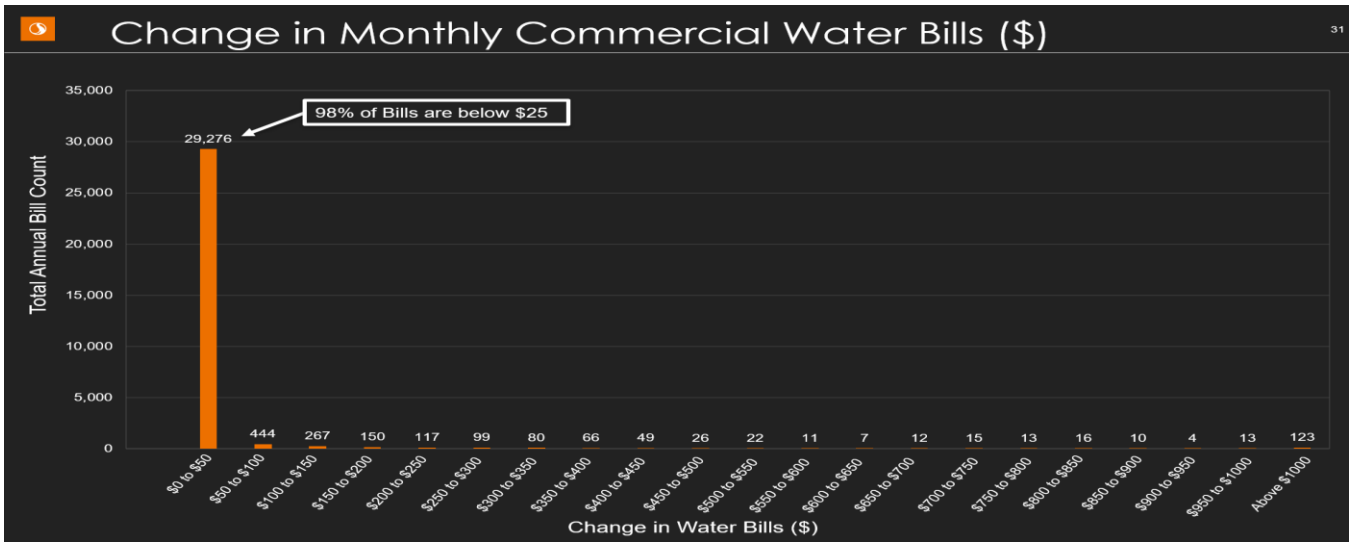
Water: **$27**
Sewer: **$33**
Total: $60
NC Average

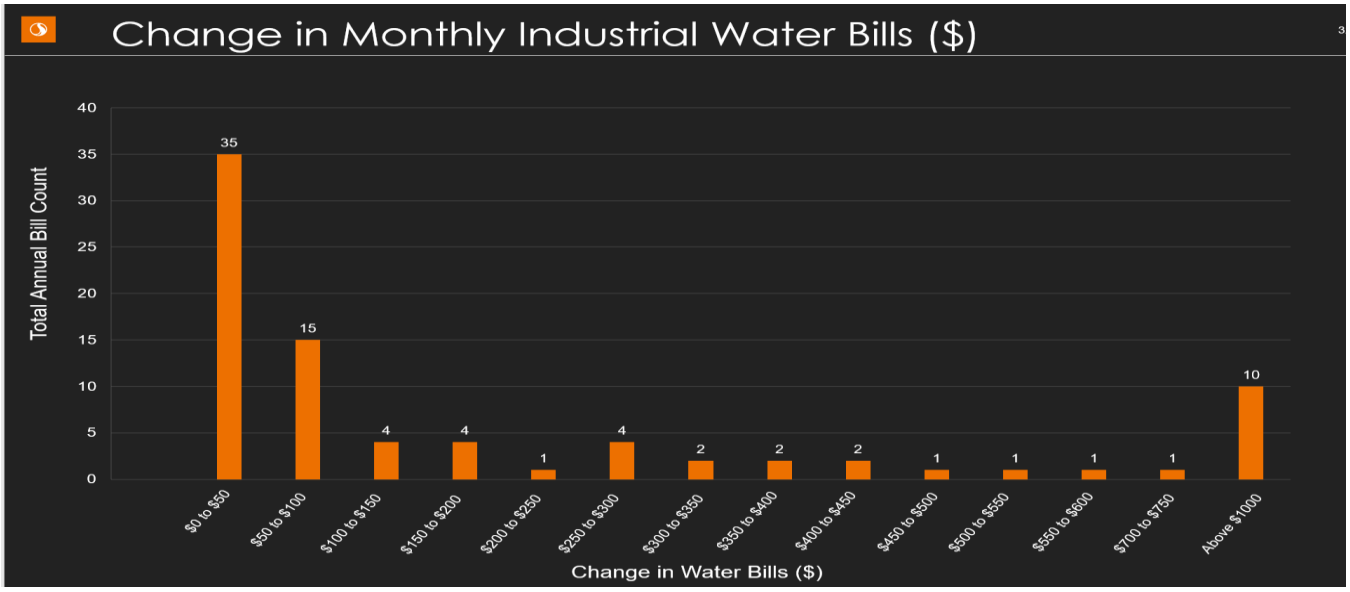
- US Energy Information Administration, 2022 Electricity Reports
- US Bureau of Labor Statistics, Consumer Expenditure Survey, August 2022
- Current inside city residential rates for 3,000 gallons per month
- Outside City current and proposed residential bills for 3,000 gallons per month at $71 and $75, respectively

Change in Monthly Residential Water Bills ($)

30







Sample Residential Monthly Bills (3/4“) - Inside

33

		Water Bill (Inside)				Sewer Bill (Inside)				Total Bill (Inside)			
Meter Size	Usage (gal)	Current Bill	Proposed Bill	$ Change	% Change	Current Bill	Proposed Bill	$ Change	% Change	Current Bill	Proposed Bill	$ Change	% Change
3/4	1,000	$ 12.80	$ 13.72	$ 0.92	7.2%	$ 15.25	$ 18.04	$ 2.79	18.3%	$ 28.05	$ 31.76	$ 3.71	13.2%
3/4	2,000	$ 17.28	$ 17.48	$ 0.20	1.2%	$ 21.58	$ 24.92	$ 3.34	15.5%	$ 38.86	$ 42.40	$ 3.54	9.1%
3/4	3,000	$ 21.76	$ 21.24	$ (0.52)	-2.4%	$ 27.91	$ 31.80	$ 3.89	13.9%	$ 49.67	$ 53.04	$ 3.37	6.8%
3/4	4,000	$ 26.24	$ 26.25	$ 0.01	0.0%	$ 34.24	$ 38.68	$ 4.44	13.0%	$ 60.48	$ 64.93	$ 4.45	7.4%
3/4	5,000	$ 30.72	$ 31.26	$ 0.54	1.8%	$ 40.57	$ 45.56	$ 4.99	12.3%	$ 71.29	$ 76.82	$ 5.53	7.8%
3/4	6,000	$ 35.20	$ 36.27	$ 1.07	3.0%	$ 46.90	$ 52.44	$ 5.54	11.8%	$ 82.10	$ 88.71	$ 6.61	8.1%
3/4	7,000	$ 40.13	$ 42.53	$ 2.40	6.0%	$ 53.23	$ 59.32	$ 6.09	11.4%	$ 93.36	$ 101.86	$ 8.50	9.1%
3/4	8,000	$ 45.06	$ 48.80	$ 3.74	8.3%	$ 59.56	$ 66.20	$ 6.64	11.2%	$ 104.62	$ 115.00	$ 10.38	9.9%
3/4	9,000	$ 49.99	$ 55.06	$ 5.07	10.1%	$ 65.89	$ 73.09	$ 7.20	10.9%	$ 115.88	$ 128.15	$ 12.27	10.6%
3/4	10,000	$ 54.92	$ 62.58	$ 7.66	13.9%	$ 72.22	$ 79.97	$ 7.75	10.7%	$ 127.14	$ 142.54	$ 15.40	12.1%
3/4	11,000	$ 59.85	$ 70.09	$ 10.24	17.1%	$ 78.55	$ 86.85	$ 8.30	10.6%	$ 138.40	$ 156.94	$ 18.54	13.4%
3/4	12,000	$ 64.78	$ 77.61	$ 12.83	19.8%	$ 84.88	$ 93.73	$ 8.85	10.4%	$ 149.66	$ 171.34	$ 21.68	14.5%
3/4	13,000	$ 69.71	$ 85.13	$ 15.42	22.1%	$ 91.21	$ 100.61	$ 9.40	10.3%	$ 160.92	$ 185.73	$ 24.81	15.4%
3/4	14,000	$ 74.64	$ 92.64	$ 18.00	24.1%	$ 97.54	$ 107.49	$ 9.95	10.2%	$ 172.18	$ 200.13	$ 27.95	16.2%
3/4	15,000	$ 80.24	$ 100.16	$ 19.92	24.8%	$ 103.87	$ 114.37	$ 10.50	10.1%	$ 184.11	$ 214.53	$ 30.42	16.5%
3/4	16,000	$ 85.84	$ 107.67	$ 21.83	25.4%	$ 110.20	$ 121.25	$ 11.05	10.0%	$ 196.04	$ 228.92	$ 32.88	16.8%
3/4	17,000	$ 91.44	$ 115.19	$ 23.75	26.0%	$ 116.53	$ 128.13	$ 11.60	10.0%	$ 207.97	$ 243.32	$ 35.35	17.0%
3/4	18,000	$ 97.04	$ 122.71	$ 25.67	26.5%	$ 122.86	$ 135.01	$ 12.15	9.9%	$ 219.90	$ 257.72	$ 37.82	17.2%
3/4	19,000	$ 102.64	$ 130.22	$ 27.58	26.9%	$ 129.19	$ 141.89	$ 12.70	9.8%	$ 231.83	$ 272.12	$ 40.29	17.4%
3/4	20,000	$ 108.24	$ 137.74	$ 29.50	27.3%	$ 135.52	$ 148.77	$ 13.25	9.8%	$ 243.76	$ 286.51	$ 42.75	17.5%

Sample Residential Monthly Bills (3/4") – Outside

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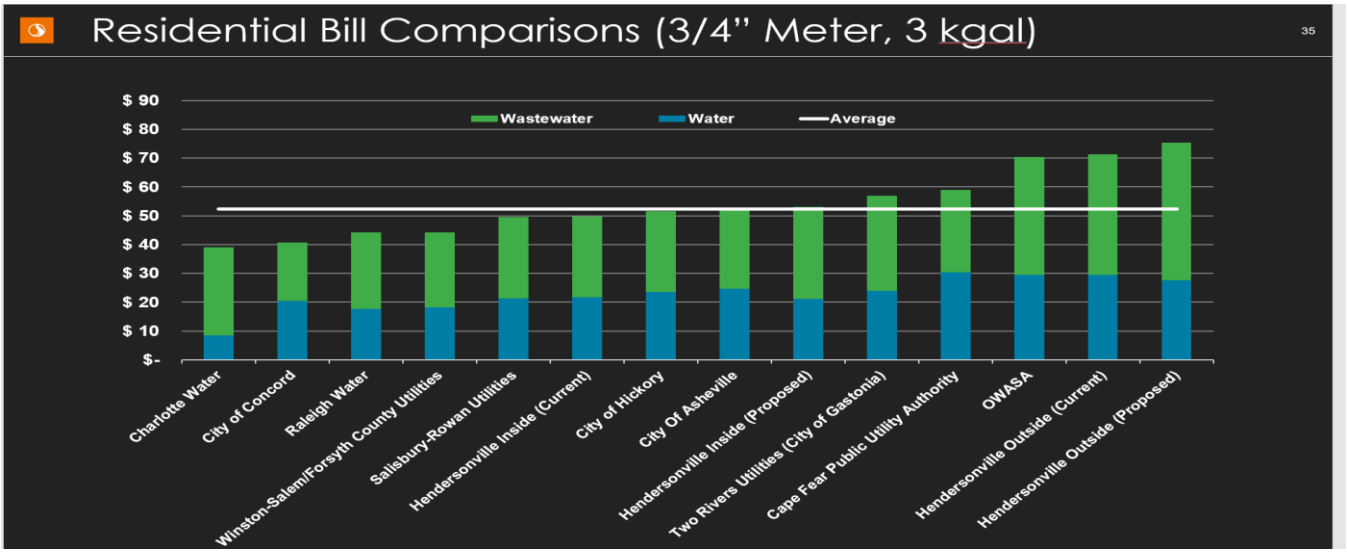
		Water Bill (Outside)				Sewer Bill (Outside)				Total Bill (Outside)			
Meter Size	Usage (gal)	Current Bill	Proposed Bill	$ Change	% Change	Current Bill	Proposed Bill	$ Change	% Change	Current Bill	Proposed Bill	$ Change	% Change
3/4	1,000	$ 17.28	$ 17.84	$ 0.56	3.2%	$ 22.88	$ 27.06	$ 4.18	18.3%	$ 40.16	$ 44.90	$ 4.74	11.8%
3/4	2,000	$ 23.33	$ 22.72	$ (0.61)	-2.6%	$ 32.37	$ 37.38	$ 5.01	15.5%	$ 55.70	$ 60.10	$ 4.40	7.9%
3/4	3,000	$ 29.38	$ 27.61	$ (1.77)	-6.0%	$ 41.87	$ 47.70	$ 5.84	13.9%	$ 71.24	$ 75.31	$ 4.07	5.7%
3/4	4,000	$ 35.42	$ 34.12	$ (1.30)	-3.7%	$ 51.36	$ 58.02	$ 6.66	13.0%	$ 86.78	$ 92.14	$ 5.36	6.2%
3/4	5,000	$ 41.47	$ 40.64	$ (0.84)	-2.0%	$ 60.86	$ 68.34	$ 7.49	12.3%	$ 102.33	$ 108.98	$ 6.65	6.5%
3/4	6,000	$ 47.52	$ 47.15	$ (0.37)	-0.8%	$ 70.35	$ 78.66	$ 8.31	11.8%	$ 117.87	$ 125.82	$ 7.95	6.7%
3/4	7,000	$ 54.18	$ 55.29	$ 1.12	2.1%	$ 79.85	$ 88.99	$ 9.14	11.4%	$ 134.02	$ 144.28	$ 10.26	7.7%
3/4	8,000	$ 60.83	$ 63.44	$ 2.60	4.3%	$ 89.34	$ 99.31	$ 9.97	11.2%	$ 150.17	$ 162.74	$ 12.57	8.4%
3/4	9,000	$ 67.49	$ 71.58	$ 4.09	6.1%	$ 98.84	$ 109.63	$ 10.79	10.9%	$ 166.32	$ 181.21	$ 14.88	8.9%
3/4	10,000	$ 74.14	$ 81.35	$ 7.21	9.7%	$ 108.33	$ 119.95	$ 11.62	10.7%	$ 182.47	$ 201.30	$ 18.83	10.3%
3/4	11,000	$ 80.80	$ 91.12	$ 10.32	12.8%	$ 117.83	$ 130.27	$ 12.44	10.6%	$ 198.62	$ 221.39	$ 22.77	11.5%
3/4	12,000	$ 87.45	$ 100.89	$ 13.44	15.4%	$ 127.32	$ 140.59	$ 13.27	10.4%	$ 214.77	$ 241.48	$ 26.71	12.4%
3/4	13,000	$ 94.11	$ 110.66	$ 16.56	17.6%	$ 136.82	$ 150.91	$ 14.10	10.3%	$ 230.92	$ 261.58	$ 30.65	13.3%
3/4	14,000	$ 100.76	$ 120.43	$ 19.67	19.5%	$ 146.31	$ 161.23	$ 14.92	10.2%	$ 247.07	$ 281.67	$ 34.59	14.0%
3/4	15,000	$ 108.32	$ 130.21	$ 21.88	20.2%	$ 155.81	$ 171.55	$ 15.75	10.1%	$ 264.13	$ 301.76	$ 37.63	14.2%
3/4	16,000	$ 115.88	$ 139.98	$ 24.09	20.8%	$ 165.30	$ 181.88	$ 16.58	10.0%	$ 281.18	$ 321.85	$ 40.67	14.5%
3/4	17,000	$ 123.44	$ 149.75	$ 26.30	21.3%	$ 174.80	$ 192.20	$ 17.40	10.0%	$ 298.24	$ 341.94	$ 43.71	14.7%
3/4	18,000	$ 131.00	$ 159.52	$ 28.52	21.8%	$ 184.29	$ 202.52	$ 18.23	9.9%	$ 315.29	$ 362.04	$ 46.74	14.8%
3/4	19,000	$ 138.56	$ 169.29	$ 30.73	22.2%	$ 193.79	$ 212.84	$ 19.05	9.8%	$ 332.35	$ 382.13	$ 49.78	15.0%
3/4	20,000	$ 146.12	$ 179.06	$ 32.94	22.5%	$ 203.28	$ 223.16	$ 19.88	9.8%	$ 349.40	$ 402.22	$ 52.82	15.1%

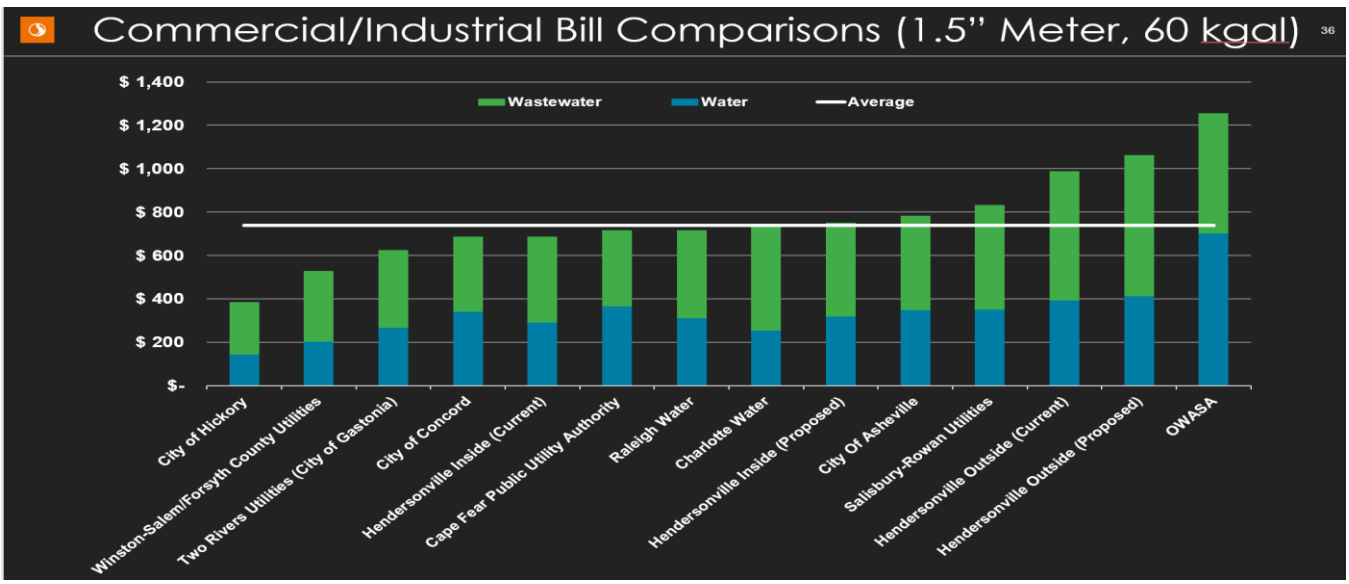
Residential Bill Comparisons (3/4" Meter, 3 kgal)

35



Commercial/Industrial Bill Comparisons (1.5" Meter, 60 kgal)

36



System Development Fees

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

System Development Fee Considerations

- 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 but are very common in North Carolina
- Requirements and limitations on the use of SDFs given legislation
  - Separate tracking of revenues from SDFs
  - Limitations on use of proceeds depending on approach

Approach / Methodologies

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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

Recommend the use of the combined-in method for water and sewer SDFs for City

Combined Method SDF Calculation

$$\text{System Development Fee} = \frac{\text{Value of System - Credit}}{\text{System Capacity}}$$

1) **Value of Utility System**
   - Depreciated value of current assets in place, escalated to current replacement cost
   - Plus: The value of future planned capital projects that will **add** capacity to the system (*10-Year Capital Plan*)
2) **Credits**
   - Outstanding principal on existing utility debt
   - NPV of principal on future debt over planning period (must equal at least 25% of expansion capital projects, if not additional credit required
   - Donated/contributed and non-core system assets
3) **System Capacity**
   - Total capacity in the utility system measured in units of service (Equivalent Residential Units or ERUs) with the existing system and expansion of the system

Water SDF Calculation

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	Source / Treatment	Transmission / Distribution	Total
Replacement Value of Existing Depreciated Assets	$34,607,998	$51,705,500	$86,313,497
Expansion Capital Projects	63,485,535	45,005,000	108,490,535
Total Value	**$98,093,533**	**$96,710,500**	**$194,804,032**
Less Credits			
Outstanding Debt Principal	($7,240,635)	($10,817,749)	($18,058,384)
Donated and Non-Core Assets	(1,219,302)	(8,960,275)	(10,179,577)
Revenue Credit (NPV of future debt principal over period)	(26,613,455)	(18,866,322)	(45,479,777)
Net System Value	**$63,020,141**	**$58,066,154**	**$121,086,295**
System Capacity - Million Gallons per Day*	18.0	18.0	
Level of Service per ERU (gallons per day)	277	277	
Equivalent Residential Units (ERU)	**64,935**	**64,935**	
Water System Development Fee Per ERU	**$971**	**$894**	**$1,865**

**Includes 6 MGD WTP plant expansion*

Sewer SDF Calculation

	Treatment	Conveyance / Collection	Total
Replacement Value of Existing Depreciated Assets	$28,145,176	$35,802,595	$63,947,771
Expansion Capital Projects	57,750,769	16,212,000	73,962,769
Total Value	**$85,895,945**	**$52,014,595**	**$137,910,540**
Less Credits			
Outstanding Debt Principal	($6,446,996)	($8,201,021)	($14,648,017
Donated and Non-Core Assets	(63,282)	(2,629,945)	(2,693,227)
Revenue Credit (NPV of future debt principal over period)	(24,209,412)	(6,796,152)	(31,005,564)
Net System Value	**$55,176,255**	**$34,387,477**	**$89,563,732**
System Capacity - Million Gallons per Day*	7.8	7.8	
Level of Service per ERU (gallons per day)	277	277	
Equivalent Residential Units (ERU)	**28,139**	**28,139**	
Wastewater System Development Fee Per ERU	**$1,961**	**$1,222**	**$3,183**

**Includes 3 MGD WWTP plant expansion*

Assessment of System Development Fees

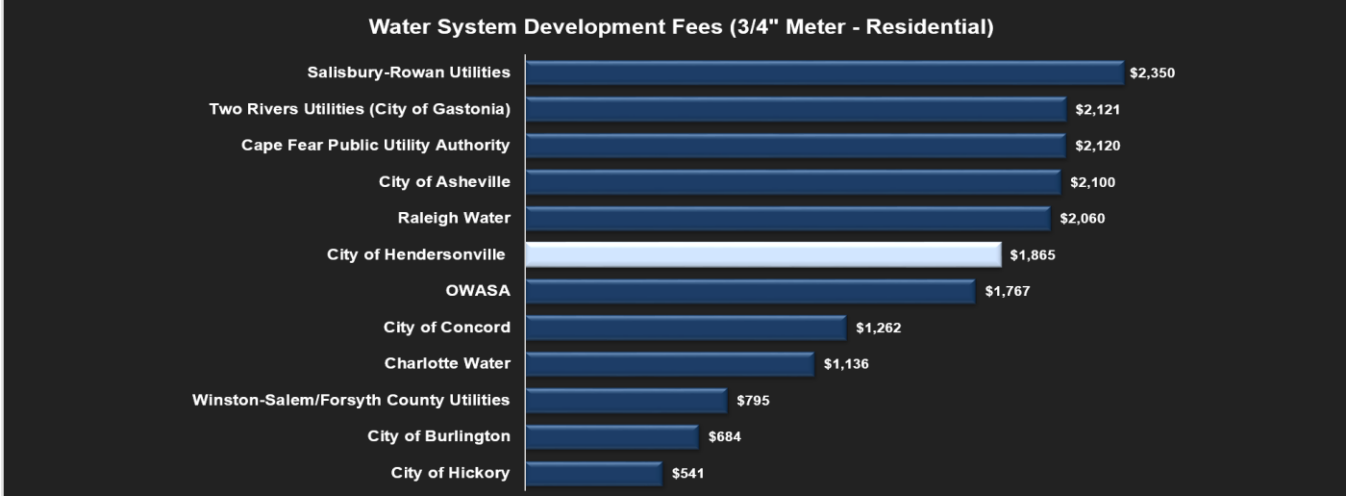
- SDFs must be applied based on units of service (represents potential demand)
- SDFs are often scaled by meter size based on hydraulic capacity of meter
- Recommend the use of American Water Works Association (AWWA) meter equivalents

Meter size	Equivalent Residential Units (ERU)
3/4"	1.00
1"	1.67
1 ½"	3.33
2"	5.33
3"	11.67
4"	21.00
6"	43.33
8"	93.33

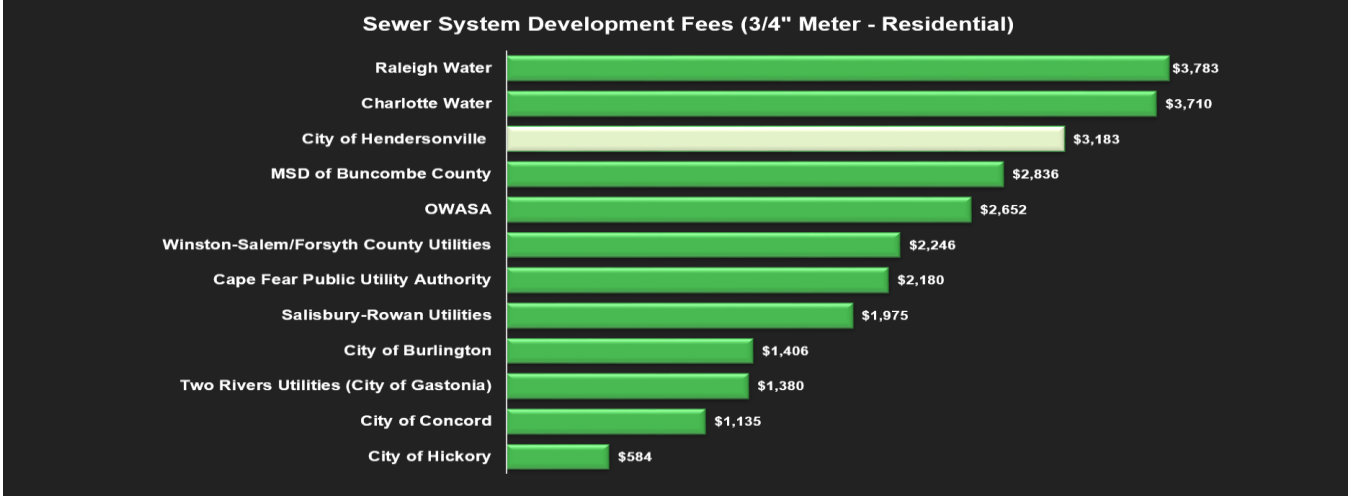
Calculated System Development Fees

Meter size	Calculated Water SDF	Current No. of Water Meters	Calculated Wastewater SDF	Current No. of Wastewater Customers	Combined SDF
3/4"	$1,865	29,564	$3,183	9,767	$5,048
1"	$3,108	622	$5,305	297	$8,413
1 ½"	$6,217	317	$10,610	177	$16,827
2"	$9,947	142	$16,976	79	$26,923
3"	$21,758	24	$37,135	12	$58,893
4"	$39,165	11	$66,843	4	$106,008
6"	$80,817	11	$137,930	2	$218,747
8"	$174,067	0	$297,080	0	$471,147

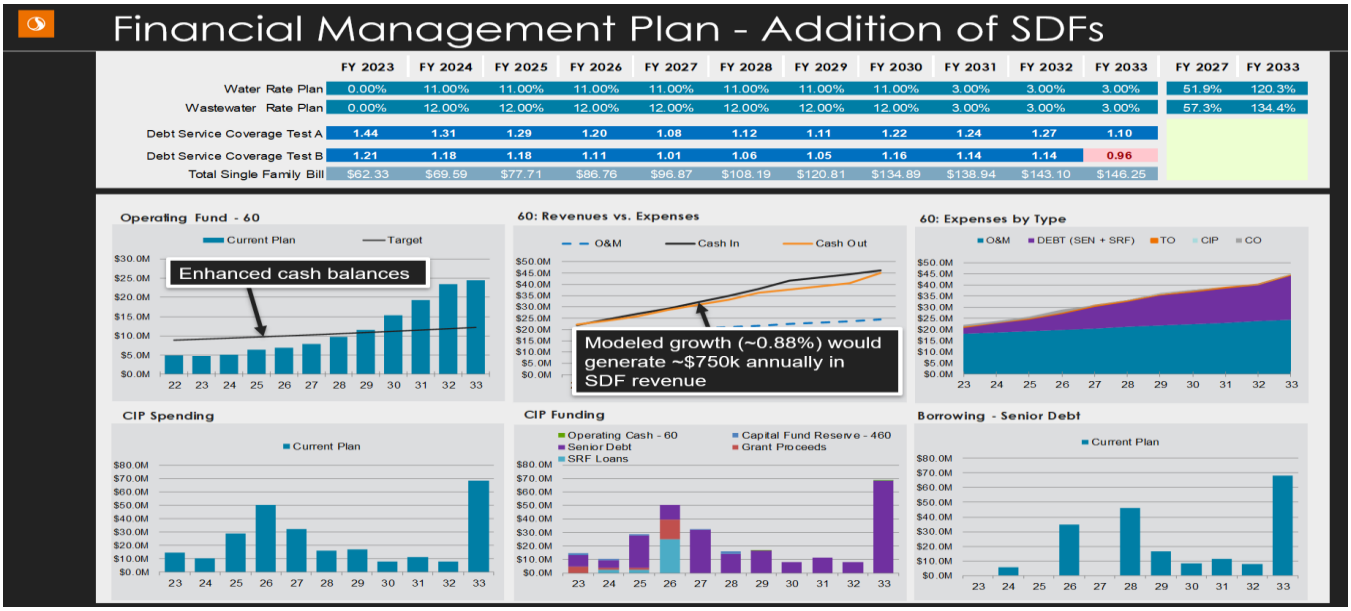
Benchmarking - Water SDFs



Benchmarking - Sewer SDFs



Financial Management Plan - Addition of SDFs



	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2027	FY 2033
Water Rate Plan	0.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	3.00%	3.00%	3.00%	51.9%	120.3%
Wastewater Rate Plan	0.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	3.00%	3.00%	3.00%	57.3%	134.4%
Debt Service Coverage Test A	1.44	1.31	1.29	1.20	1.08	1.12	1.11	1.22	1.24	1.27	1.10		
Debt Service Coverage Test B	1.21	1.18	1.18	1.11	1.01	1.06	1.05	1.16	1.14	1.14	0.96		
Total Single Family Bill	$62.33	$69.59	$77.71	$86.76	$96.87	$108.19	$120.81	$134.89	$138.94	$143.10	$146.25		

Rate Study Recommendations

1. Revenue increases from rates are required in FY 24 to meet debt coverage and cash balances
   - Recommended adjustments: Water 11%, Sewer 12%
2. Recommended water and sewer rate structure changes
   - Increase base charges and align scaling with industry standards
   - Modify residential water volumetric rates to include life-line tier and enhanced conservation
   - Adopt uniform commercial/industrial water volumetric rates
   - Enhanced conservation for irrigation rates
3. Consider the adoption of system development fees

B. New Fats, Oils and Grease (FOG), Management Policy – *Lee Smith, Utilities Director & Kasey Lyons, Environmental Compliance Technician*

Lee Smith explained the purpose of this new Fats, Oils, and Grease (FOG) Management Policy is to ensure no food service establishment (FSE) is discharging FOG into the City's sanitary sewer system. The specific requirements that FSEs must follow are detailed in this policy, including the frequency for cleaning of grease removal devices. The new proposed maintenance requirements outline specific steps FSEs must take to properly clean and maintain their grease removal device. This policy also covers the requirement that FSEs document the cleanings and retain the records for review during inspections. Inspections will be annual, or more often if needed. The Best Management Practices (BMPs) section provides detailed instructions for employees working in a kitchen on ways to avoid FOG from going down the drain. This section also provides more details of the construction and plumbing requirements related to grease removal devices. This includes a more specific requirement to have automatic dishwashers bypass any grease removal devices, as this has been leading to more frequent sanitary sewer overflows. Additionally, this section establishes requirements for mobile food units, which have previously gone unaddressed. The requirements for new FOG sources outlines the information the city needs from any new FSE as related to their grease removal device including information the FSE needs to ensure their grease removal device meets the City's requirements. This section also removes the ability of any FSE to be "grandfathered in" and ensures all FSE compliance.

05

To whom does the policy apply to?

FOOD SERVICE ESTABLISHMENTS (FSE)
Any food service facility discharging kitchen or food preparation wastewater – examples include restaurants, hotels, schools, grocery stores, nursing homes.

MOBILE FOOD UNITS (MFU)
Any self-contained mobile kitchen that is equipped to prepare and/or sell consumable food or drink items; a food establishment designed to be readily moved and vend food.

Whom does it apply • 2023

What does the new policy include?

SPECIFIC AND CLEAR DEFINITIONS –
Examples include FSE, MFU, grease interceptors, grease traps.

REQUIREMENTS REGARDING GREASE REMOVAL DEVICES –
Frequency of cleaning, records/documentation.

DETAILS ABOUT CITY INSPECTIONS –
What to expect from City inspections, frequency, and requirements.

Specific Highlights

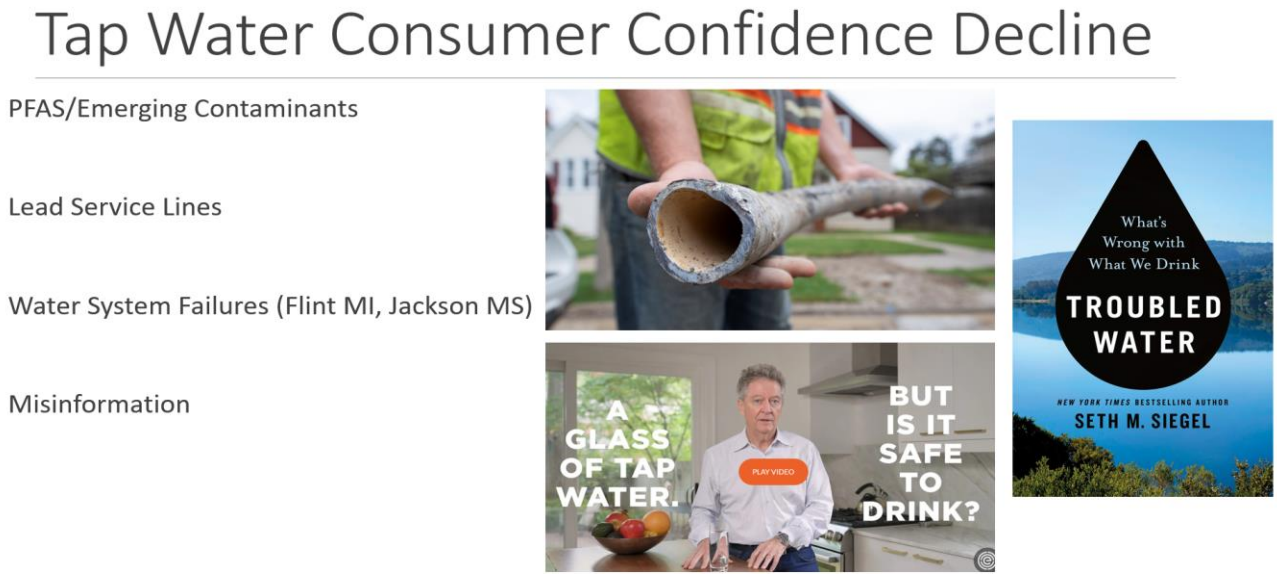
BEST MANAGEMENT PRACTICES –
A detailed BMP section has been included to assist FSE and MFU in FOG management.

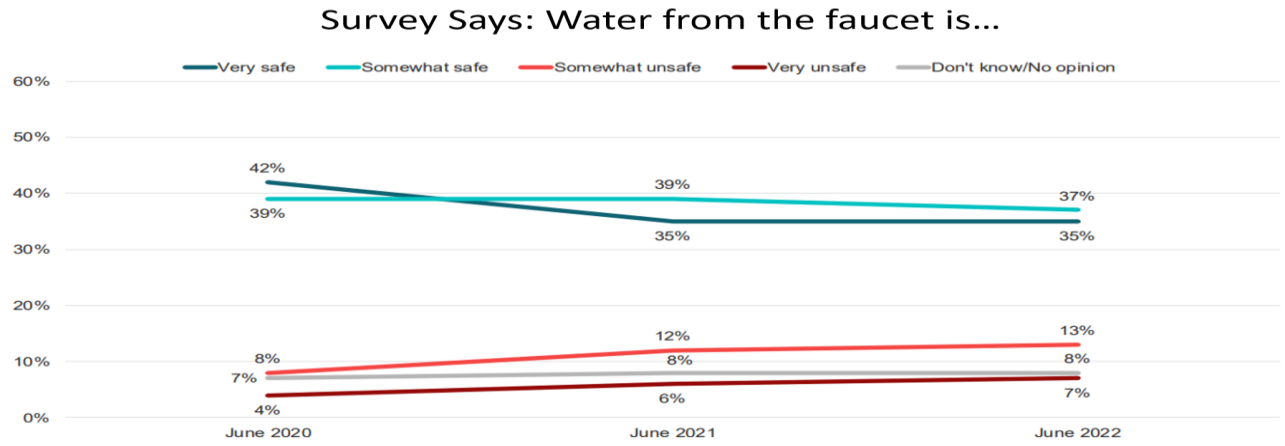
CONSTRUCTION AND PLUMBING REQUIREMENTS –
Clear requirements have been outlined for new and existing construction.

GRANDFATHER CLAUSE REMOVED
The policy includes no "grandfathering out" and requires that all FSE and MFU be subject to the policy.

C. Tap Water Branding – *Adam Steurer, Utilities Engineer*

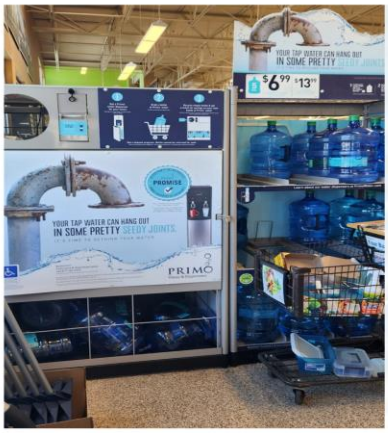
Adam Steurer said The City of Hendersonville must instill the value of water and improve consumer confidence in its product: high-quality tap water. Recent high-profile water system failures across the nation (Ex. Jackson, Mississippi and Flint, Michigan) have negative impacts on confidence in tap water and local governments everywhere. Consumers who have lost confidence in their tap water through these system failures and/or have perceived health risks from drinking tap water are forced to seek an alternative – bottled water, which on a per unit basis is orders of magnitude more expensive compared to tap water and not environmentally friendly. Hendersonville tap water is of the highest quality but does not have a "brand". Building a "brand" for its tap water and providing additional educational outreach through the "brand" will allow the Utility to improve consumer confidence, build trust in local government, instill the value of water, reduce the use of wasteful plastic bottled water, and improve affordability. A focus group comprised of multidisciplinary Utility staff have selected a brand name and associated imagery for City of Hendersonville tap water.





Ref: AWWA. Polling Presentation. Morning Consult.

The Alternative..

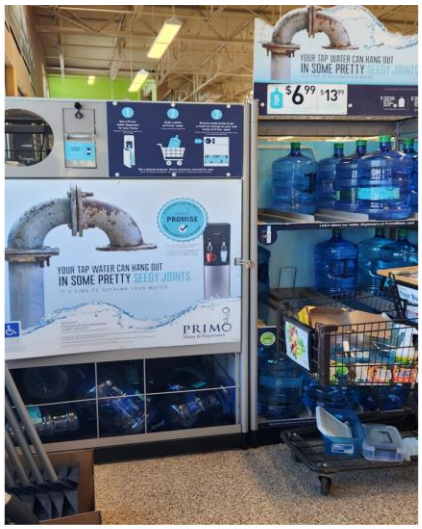


-Primo: $1.40/gallon (Filling station, Ingles)

-Aquafina: $1.89/gallon (32-pack, Wal-Mart)

-FIJI: $10.52/gallon (24-pack, Wal-Mart)

Hendersonville Tap Water: < $0.01/gallon



Why "Brand" Our Water?

-Build Trust / Consumer Confidence

-Understanding the Value of Water

-Affordability (low-income and minority customers)

-Rate Increases

-Reduce Waste (plastic bottles)

Branding Focus Group

French Broad Hustler
and
Western Carolina Democrat

VOL XXIII. NO 1 — HENDERSONVILLE, N. C. THURSDAY JANUARY 13, 1916 — 1.00 PER YEAR, IN ADVANCE

PISGAH MOUNTAIN WATER IS PROPOSED FOR THIS CITY $150,000 BOND ISSUE

CLUB NEEDS NEW METHODS MUST BEGIN ON BUSINESS BASIS TO ATTAIN SUCCESS

The Hendersonville News
PUBLISHED TUESDAY AND FRIDAY

VOLUME XXIX — HENDERSONVILLE, N. C., FRIDAY, APRIL 21, 1922

COMMISSION SELECTS PISGAH AS SOURCE FOR CITY'S WATER SUPPLY

Work to Begin as Soon as Government Endorses Blueprints; Estimated Pisgah Can Yield 7 to 10 Millions Gallons Daily.

PLANS MATURING FOR BEGINNING WORK ON BANK

Tribute From Our Gobs to Italy's Unknown Soldier

M. ALLARD CASE BECOMES COUN ROAD OVERSI

.. "finest, purest water east of the Rockies"
-HN 4/21/1922

venty Leading Citizens Pledge their Service to Greater Hendersonville Campaign this Week

The Hendersonville News

Publishes More Henderson County News Than All Other Newspapers Combined

PUBLISHED MONDAY, WEDNESDAY AND FRIDAY AFTERNOONS

XXIX—No. 66 Hendersonville, N. C., Monday, August 14, 1922 One Year by Mail $4.00 Delivered by Carrier, $4.00 5c Per Copy

R. P. LEADERS FROM ALL PARTS OF SOUTH ARE IN BIBLE CONFERENCE DURING THIS WEEK AT BONCLARKEN

Thornton Whaling and Other Able Church Men Are on Program

METHODISTS GET SUBSCRIPTIONS FOR BUILDING

END OF RAIL STRIKE NOT YET IN SIGHT; FIGHT TO FINISH

City's New Water System Will Greatly Reduce Cost Of Local Fire Insurance

BONCLARKEN'S FIRST CONFERENCE CLOSES

WATER PROGRAM CALLS FOR MORE INDUSTRIES, COMPREHENSIVE SEWER SYSTEM, AND A BETTER CITY PLAN

Stanley H. Wright, Resident Engineer, Declares City is About to Burst From Shell to Unbounded Progress.

CHAMBER OF COMMERCE LAUNCHES THREE-YEAR WORKING PROGRAM

.. *"water source unusually fine... natural clearness and purity... delightful to the palate"...*
-HN 8/14/1922

.. *"pure, crystal, sparking... water unsurpassed purity anywhere in America"...*
-HN 7/19/1923

.. *"Magnificent Water Supply... greatest project the City has ever done"...*
-HN 7/26/1923

How will we use the brand?

-Water bottles (give-aways for events/treatment facility tours)

-Educational materials

-Decals at reusable bottle filling stations (schools, public buildings)

-Social media posts/campaigns

6. **ADJOURNMENT**

There being no further business, the meeting was adjourned at 7:29 p.m.

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Jerry A. Smith Jr., J.D., City Council Member & Chairman

ATTEST:

_____

Jill Murray, City Clerk