
Round Hill Rate Study

Part 5: Advertised Rates

March 15, 2023 - Introduction of Issues

April 5, 2023 – Capital Project Scenarios

April 19, 2023 – Near Term Financing (w/Davenport)

May 3, 2023 – Rate Scenarios



May 17, 2023 – Advertised Rates

Rate Study Recap

- March 15: overview of utility system
 - Outlined challenges facing current rate structure
 - Significant increase in projected CIP costs and difficult inflation environment
- April 5: determining the CIP plan
 - Council chose a baseline scenario with \$12M in projected CIP
 - 4 major projects (Airmont Tank, ESTP, Well-D, Filter replacements)
- April 19: discussion with Davenport on near-term financing
 - RFP for \$2.5M in bank placement since released
- May 3: discussion of rate scenarios to fund \$12M CIP plan
 - Council narrowed to 24-5-5-5-5 vs. 15-15-5-5-5

Today is to determine advertised rates

CIP, Debt and Inflation Baselines

- Mayor and Town Manager have refined project list several times
 - Converged at \$10.6M in specified projects
 - Unspecified \$1.7M for miscellaneous and unknown

- Sequencing of projects for rate study completed
 - Well D and Tertiary filters this summer/fall
 - Airmont Tank next summer
 - ESTP after Tank finishes
 - Spreads out loans, staff has 1 big project at a time

- Town has debt margin to fund the 4 major projects

- Assuming 5% O&M inflation rate in baseline

Baseline CIP Plan

Project	% Water	5-year Total
Airmont Tank	100%	\$ 4,100,000
Well D	100%	\$ 570,000
Sewer Upgrades	0%	\$ 400,000
Sewer Repairs	0%	\$ 150,000
Water Repairs	100%	\$ 540,000
ESTP	100%	\$ 3,390,000
Wells	100%	\$ 60,000
NewOfficeBldg	50%	\$ 250,000
Fleet	50%	\$ 235,000
TertiaryFilters	0%	\$ 615,000
Stoneleigh	100%	\$ 130,000
Water Meters	100%	\$ 125,000
Unspecified	50%	\$ 1,700,000
Total CIP	82%	\$ 12,265,000

*only future project costs shown

New Debt Instruments

- Bank Placement Bond
- Southern Tank Bond
- ESTP Bond

Baseline Debt Plan					
Year	Principal	Term	Rate	%Water	%Sewer
2024	\$ 2.5M	20	5.0%	60%	40%
2025	\$ 3.8M	30	5.0%	100%	0%
2027	\$ 3.2M	20	5.5%	100%	0%

Financial Model w/1 big step, 5% escalator

\$12.3M CIP

(Baseline Debt)

24% FY24, 5% after

	Historical				5-year Projection				
	Actual 2020	Actual 2021	Actual 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Water Operating Receipts	\$ 893,153	\$ 952,513	\$ 980,521	\$ 1,021,424	\$ 1,237,358	\$ 1,302,611	\$ 1,370,885	\$ 1,443,963	\$ 1,519,294
Sewer Operating Receipts	\$ 1,293,471	\$ 1,374,895	\$ 1,419,678	\$ 1,522,787	\$ 1,796,861	\$ 1,891,279	\$ 1,990,483	\$ 2,095,426	\$ 2,206,150
Operating Receipts	\$ 2,186,624	\$ 2,327,408	\$ 2,400,199	\$ 2,544,211	\$ 3,034,220	\$ 3,193,891	\$ 3,361,367	\$ 3,539,389	\$ 3,725,443
Water Operating Payments	\$ (708,089)	\$ (1,040,905)	\$ (971,460)	\$ (1,039,463)	\$ (1,091,436)	\$ (1,146,008)	\$ (1,203,308)	\$ (1,263,473)	\$ (1,326,647)
Sewer Operating Payments	\$ (1,196,139)	\$ (1,136,757)	\$ (1,100,245)	\$ (1,177,262)	\$ (1,236,125)	\$ (1,297,931)	\$ (1,362,828)	\$ (1,430,969)	\$ (1,502,517)
Operating Payments	\$ (1,904,228)	\$ (2,177,662)	\$ (2,071,705)	\$ (2,216,724)	\$ (2,327,561)	\$ (2,443,939)	\$ (2,566,136)	\$ (2,694,442)	\$ (2,829,164)
Operating Surplus/(Deficit)	\$ 282,396	\$ 149,746	\$ 328,494	\$ 327,487	\$ 706,659	\$ 749,952	\$ 795,232	\$ 844,947	\$ 896,279
Total Debt Service (P+I)	\$ (493,073)	\$ (415,176)	\$ (409,846)	\$ (422,141)	\$ (406,959)	\$ (609,625)	\$ (858,111)	\$ (858,168)	\$ (1,120,076)
Water Cash-funded Capital	\$ (190,732)	\$ (364,912)	\$ (560,775)	\$ (442,500)	\$ (407,163)	\$ (150,653)	\$ (379,670)	\$ (287,714)	\$ (149,384)
Sewer Cash-funded Capital	\$ (70,507)	\$ (154,845)	\$ (235,264)	\$ (127,500)	\$ (346,163)	\$ (69,653)	\$ (102,670)	\$ (145,714)	\$ (235,384)
Cash-funded capital	\$ (261,239)	\$ (519,757)	\$ (796,039)	\$ (570,000)	\$ (753,326)	\$ (220,306)	\$ (482,340)	\$ (433,428)	\$ (384,768)
Availability fees	\$ 787,100	\$ 992	\$ 1,038,124	\$ 200,000	\$ 211,283	\$ 221,852	\$ 232,947	\$ 244,660	\$ 256,926
Non-Operating Surplus/(Deficit)	\$ 32,788	\$ (933,941)	\$ (167,761)	\$ (792,141)	\$ (949,003)	\$ (608,080)	\$ (1,107,504)	\$ (1,046,936)	\$ (1,247,918)
Total Cash Surplus/(Deficit)	\$ 315,184	\$ (784,195)	\$ 160,733	\$ (464,655)	\$ (242,344)	\$ 141,872	\$ (312,272)	\$ (201,989)	\$ (351,640)
Water Cash Reserves	\$ 2,849,557	\$ 2,334,424	\$ 2,188,388	\$ 1,754,528	\$ 1,528,145	\$ 1,453,077	\$ 917,613	\$ 492,327	\$ (43,796)
Sewer Cash Reserves	\$ 3,161,022	\$ 2,891,960	\$ 3,198,729	\$ 3,167,934	\$ 3,151,974	\$ 3,368,914	\$ 3,592,105	\$ 3,815,402	\$ 3,999,885
Total Cash Reserves	\$ 6,010,582	\$ 5,226,387	\$ 5,387,120	\$ 4,922,465	\$ 4,680,122	\$ 4,821,993	\$ 4,509,721	\$ 4,307,732	\$ 3,956,092
Reserve Target (Op Pmts + Debt)	\$ 2,397,301	\$ 2,592,838	\$ 2,481,551	\$ 2,638,866	\$ 2,734,520	\$ 3,053,564	\$ 3,424,246	\$ 3,552,610	\$ 3,949,240
Months of Reserve (>12)	30.1	24.2	26.1	22.4	20.5	18.9	15.8	14.6	12.0
Total Expenditures	\$ 2,697,862	\$ 3,118,005	\$ 3,295,330	\$ 3,268,866	\$ 6,060,520	\$ 5,312,564	\$ 5,894,246	\$ 6,472,610	\$ 5,239,240
Debt Servicing Ratio (<30%)	18%	13%	12%	13%	7%	11%	15%	13%	21%
CIP Expenses (5-year annual avg)	\$ (323,034)	\$ (384,533)	\$ (499,389)	\$ (574,354)	\$ (1,119,101)	\$ (1,510,789)	\$ (1,899,756)	\$ (2,321,000)	\$ (2,453,000)
Debt Funded CIP (5-year annual avg)	\$ 15,084	\$ 5,294	\$ 4,639	\$ -	\$ 485,000	\$ 853,600	\$ 1,222,200	\$ 1,687,800	\$ 1,843,000
Non-debt funded CIP (>25%)	95%	99%	99%	100%	57%	43%	36%	27%	25%
Total Debt	\$ 5,130,000	\$ 3,965,000	\$ 3,740,000	\$ 3,510,000	\$ 5,765,000	\$ 9,229,394	\$ 8,817,811	\$ 11,589,400	\$ 11,042,044
Pro-Rata Debt	\$ 769,500	\$ 594,750	\$ 561,000	\$ 491,400	\$ 822,651	\$ 1,323,625	\$ 1,270,881	\$ 1,678,553	\$ 1,607,058
Pro-Rata Debt vs. Assessments (<2%)	0.7%	0.6%	0.5%	0.4%	0.7%	1.0%	0.9%	1.2%	1.1%

Financial Model w/2 steps, 5% escalator

\$12.3M CIP

(Baseline Debt)

15% FY24&FY25, 5% after

	Historical				5-year Projection				
	Actual 2020	Actual 2021	Actual 2022	Projected 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028
Water Operating Receipts	\$ 893,153	\$ 952,513	\$ 980,521	\$ 1,021,424	\$ 1,148,384	\$ 1,324,235	\$ 1,394,324	\$ 1,466,645	\$ 1,543,802
Sewer Operating Receipts	\$ 1,293,471	\$ 1,374,895	\$ 1,419,678	\$ 1,522,787	\$ 1,666,509	\$ 1,920,031	\$ 2,021,011	\$ 2,126,953	\$ 2,239,468
Operating Receipts	\$ 2,186,624	\$ 2,327,408	\$ 2,400,199	\$ 2,544,211	\$ 2,814,893	\$ 3,244,266	\$ 3,415,334	\$ 3,593,598	\$ 3,783,270
Water Operating Payments	\$ (708,089)	\$ (1,040,905)	\$ (971,460)	\$ (1,039,463)	\$ (1,091,436)	\$ (1,146,008)	\$ (1,203,308)	\$ (1,263,473)	\$ (1,326,647)
Sewer Operating Payments	\$ (1,196,139)	\$ (1,136,757)	\$ (1,100,245)	\$ (1,177,262)	\$ (1,236,125)	\$ (1,297,931)	\$ (1,362,828)	\$ (1,430,969)	\$ (1,502,517)
Operating Payments	\$ (1,904,228)	\$ (2,177,662)	\$ (2,071,705)	\$ (2,216,724)	\$ (2,327,561)	\$ (2,443,939)	\$ (2,566,136)	\$ (2,694,442)	\$ (2,829,164)
Operating Surplus/(Deficit)	\$ 282,396	\$ 149,746	\$ 328,494	\$ 327,487	\$ 487,332	\$ 800,327	\$ 849,199	\$ 899,156	\$ 954,105
Total Debt Service (P+I)	\$ (493,073)	\$ (415,176)	\$ (409,846)	\$ (422,141)	\$ (406,959)	\$ (609,625)	\$ (858,111)	\$ (858,168)	\$ (1,120,076)
Water Cash-funded Capital	\$ (190,732)	\$ (364,912)	\$ (560,775)	\$ (442,500)	\$ (407,163)	\$ (154,173)	\$ (382,488)	\$ (289,752)	\$ (150,614)
Sewer Cash-funded Capital	\$ (70,507)	\$ (154,845)	\$ (235,264)	\$ (127,500)	\$ (346,163)	\$ (73,173)	\$ (105,488)	\$ (147,752)	\$ (236,614)
Cash-funded capital	\$ (261,239)	\$ (519,757)	\$ (796,039)	\$ (570,000)	\$ (753,326)	\$ (227,346)	\$ (487,976)	\$ (437,504)	\$ (387,228)
Availability fees	\$ 787,100	\$ 992	\$ 1,038,124	\$ 200,000	\$ 195,943	\$ 225,329	\$ 236,600	\$ 248,404	\$ 260,852
Non-Operating Surplus/(Deficit)	\$ 32,788	\$ (933,941)	\$ (167,761)	\$ (792,141)	\$ (964,343)	\$ (611,643)	\$ (1,109,487)	\$ (1,047,268)	\$ (1,246,452)
Total Cash Surplus/(Deficit)	\$ 315,184	\$ (784,195)	\$ 160,733	\$ (464,655)	\$ (477,011)	\$ 188,684	\$ (260,288)	\$ (148,112)	\$ (292,347)
Water Cash Reserves	\$ 2,849,557	\$ 2,334,424	\$ 2,188,388	\$ 1,754,528	\$ 1,432,209	\$ 1,376,824	\$ 863,639	\$ 460,693	\$ (50,377)
Sewer Cash Reserves	\$ 3,161,022	\$ 2,891,960	\$ 3,198,729	\$ 3,167,934	\$ 3,013,243	\$ 3,257,312	\$ 3,510,209	\$ 3,765,043	\$ 3,983,766
Total Cash Reserves	\$ 6,010,582	\$ 5,226,387	\$ 5,387,120	\$ 4,922,465	\$ 4,445,455	\$ 4,634,139	\$ 4,373,851	\$ 4,225,739	\$ 3,933,392
Reserve Target (Op Pmts + Debt)	\$ 2,397,301	\$ 2,592,838	\$ 2,481,551	\$ 2,638,866	\$ 2,734,520	\$ 3,053,564	\$ 3,424,246	\$ 3,552,610	\$ 3,949,240
Months of Reserve (>12)	30.1	24.2	26.1	22.4	19.5	18.2	15.3	14.3	12.0
Total Expenditures	\$ 2,697,862	\$ 3,118,005	\$ 3,295,330	\$ 3,268,866	\$ 6,060,520	\$ 5,312,564	\$ 5,894,246	\$ 6,472,610	\$ 5,239,240
Debt Servicing Ratio (<30%)	18%	13%	12%	13%	7%	11%	15%	13%	21%
CIP Expenses (5-year annual avg)	\$ (323,034)	\$ (384,533)	\$ (499,389)	\$ (574,354)	\$ (1,119,101)	\$ (1,510,789)	\$ (1,899,756)	\$ (2,321,000)	\$ (2,453,000)
Debt Funded CIP (5-year annual avg)	\$ 15,084	\$ 5,294	\$ 4,639	\$ -	\$ 485,000	\$ 853,600	\$ 1,222,200	\$ 1,687,800	\$ 1,843,000
Non-debt funded CIP (>25%)	95%	99%	99%	100%	57%	43%	36%	27%	25%
Total Debt	\$ 5,130,000	\$ 3,965,000	\$ 3,740,000	\$ 3,510,000	\$ 5,765,000	\$ 9,229,394	\$ 8,817,811	\$ 11,589,400	\$ 11,042,044
Pro-Rata Debt	\$ 769,500	\$ 594,750	\$ 561,000	\$ 491,400	\$ 822,651	\$ 1,323,625	\$ 1,270,881	\$ 1,678,553	\$ 1,607,058
Pro-Rata Debt vs. Assessments (<2%)	0.7%	0.6%	0.5%	0.4%	0.7%	1.0%	0.9%	1.2%	1.1%

Easing Water/Sewer Split and Scenarios

- Current rates are 40% water/60% sewer
 - Only relevant for small population of water-only or sewer-only users
 - Actual division of costs is 50% water/50% sewer
 - Sewer-only users (13 of them) significantly overpaying (20% above cost of service)
 - Water-only users (73 of them) significantly underpaying (20% below cost of service)
 - Everyone else (~1750 combined users) unaffected by split and paying correct total rate
- Scenario 1: 24-5-5-5-5 (adjust rates in 1 year)
- Scenario 2: 24-5-5-5-5 but also gradually adjust water/sewer split
 - Year 1 both water and sewer rates increase 24% (no adjustment to split)
 - Years 2-5 the sewer rate stays flat (<1%) and water increases 11% per year
 - Combined users see 5% increases, water-only sees 11%, sewer-only sees <1%
 - By end of Year 5 the water and sewer rates are the same
- Scenario 3: 15-15-5-5-5 (phase in step adjustment over 2 years)
- Scenario 4: 15-15-5-5-5 but also gradually adjust water/sewer split

Fiscal Policy Checks by Scenario

24% FY24, 5% after
 24% FY24, 10/0% after
 15% FY24&FY25, 5% after
 15% FY24&FY25, 10/0% after

Reserve Level (>12 months operating/debt expenses)						Debt Service Ratio (<30% expenditures)					
2023	2024	2025	2026	2027	2028	2023	2024	2025	2026	2027	2028
22.4 mo	20.5 mo	18.9 mo	15.8 mo	14.6 mo	12.0 mo	13%	7%	11%	15%	13%	21%
22.4 mo	20.5 mo	19.0 mo	15.9 mo	14.7 mo	12.3 mo	13%	7%	11%	15%	13%	21%
22.4 mo	19.5 mo	18.2 mo	15.3 mo	14.3 mo	12.0 mo	13%	7%	11%	15%	13%	21%
22.4 mo	19.5 mo	18.2 mo	15.3 mo	14.3 mo	12.0 mo	13%	7%	11%	15%	13%	21%

24% FY24, 5% after
 24% FY24, 10/0% after
 15% FY24&FY25, 5% after
 15% FY24&FY25, 10/0% after

Non-debt funded CIP Ratio (>25% total CIP)						Pro-Rata Debt vs. Assessments Ratio (<2%)					
2023	2024	2025	2026	2027	2028	2023	2024	2025	2026	2027	2028
100%	57%	43%	36%	27%	25%	0.4%	0.7%	1.0%	0.9%	1.2%	1.1%
100%	57%	43%	36%	27%	25%	0.4%	0.7%	1.0%	0.9%	1.2%	1.1%
100%	57%	43%	36%	27%	25%	0.4%	0.7%	1.0%	0.9%	1.2%	1.1%
100%	57%	43%	36%	27%	25%	0.4%	0.7%	1.0%	0.9%	1.2%	1.1%

- ❑ All scenarios compliant with adopted fiscal policies
- ❑ Availability fees not studied in detail
 - Only minor availability fee revenue projected in future years
 - Availability fees assumed to increase at same % as user rates

Typical User Bills (Water + Sewer)

24% FY24, 5% after
 24% FY24, 10/0% after
 15% FY24&FY25, 5% after
 15% FY24&FY25, 10/0% after

In-Town User Bimonthly Bills (Typical)						Change in In-Town User Bills From Prior Year					
2023	2024	2025	2026	2027	2028	2023	2024	2025	2026	2027	2028
\$ 160	\$ 198	\$ 208	\$ 218	\$ 229	\$ 241	-	\$ 38	\$ 10	\$ 10	\$ 11	\$ 11
\$ 160	\$ 198	\$ 208	\$ 218	\$ 229	\$ 241	-	\$ 38	\$ 10	\$ 10	\$ 11	\$ 11
\$ 160	\$ 184	\$ 211	\$ 222	\$ 233	\$ 244	-	\$ 24	\$ 28	\$ 11	\$ 11	\$ 12
\$ 160	\$ 184	\$ 211	\$ 222	\$ 233	\$ 244	-	\$ 24	\$ 28	\$ 11	\$ 11	\$ 12

24% FY24, 5% after
 24% FY24, 10/0% after
 15% FY24&FY25, 5% after
 15% FY24&FY25, 10/0% after

Out-of-Town User Bimonthly Bills (Typical)						Change in Out-of-Town User Bills From Prior Year					
2023	2024	2025	2026	2027	2028	2023	2024	2025	2026	2027	2028
\$ 239	\$ 297	\$ 312	\$ 327	\$ 344	\$ 361	-	\$ 57	\$ 15	\$ 16	\$ 16	\$ 17
\$ 239	\$ 297	\$ 312	\$ 327	\$ 344	\$ 361	-	\$ 57	\$ 15	\$ 16	\$ 16	\$ 17
\$ 239	\$ 275	\$ 317	\$ 332	\$ 349	\$ 367	-	\$ 36	\$ 41	\$ 16	\$ 17	\$ 17
\$ 239	\$ 275	\$ 317	\$ 332	\$ 349	\$ 367	-	\$ 36	\$ 41	\$ 16	\$ 17	\$ 17

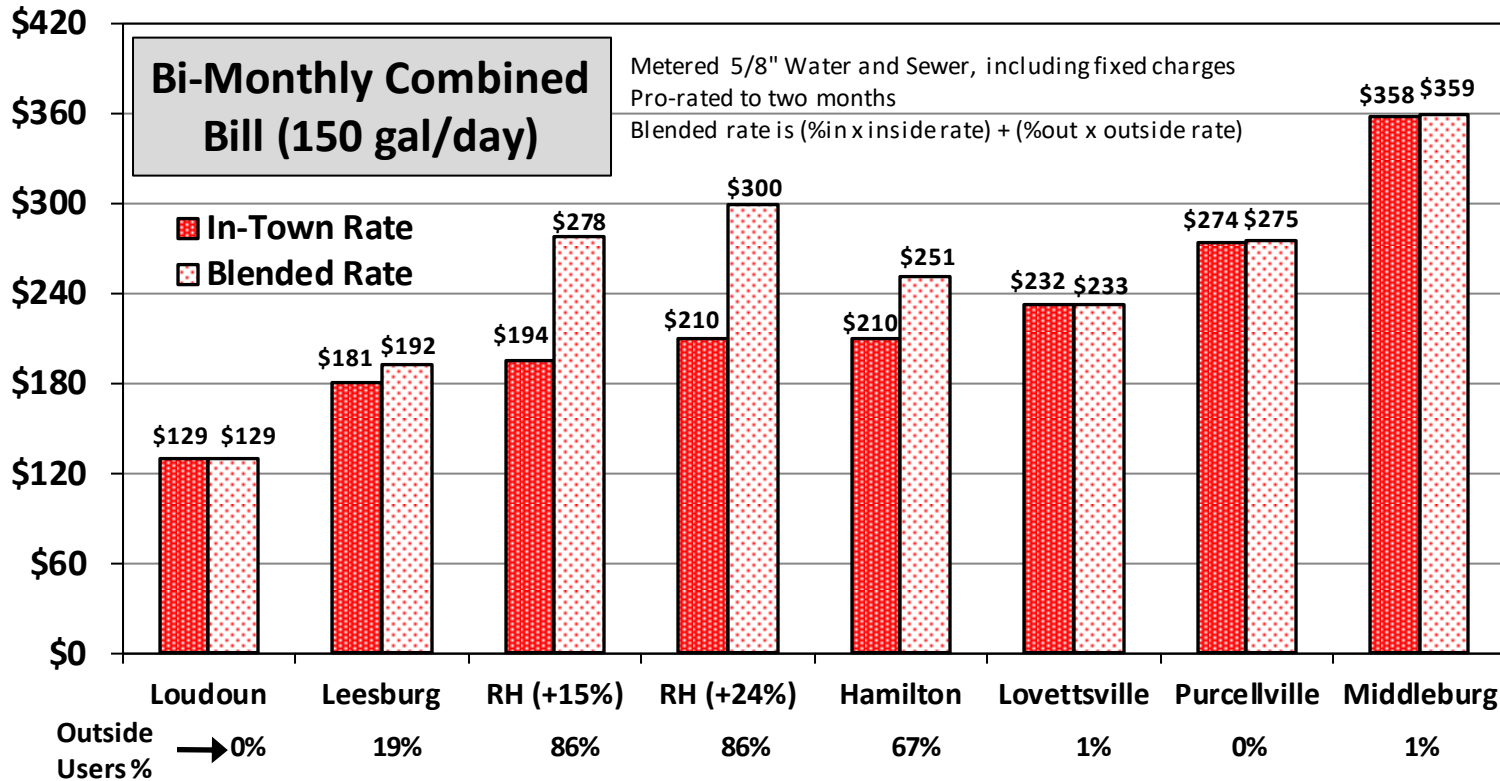
- Decision #1

- 24-5-5-5-5 vs. 15-15-5-5-5 vs. ????

- Decision #2

- Gradually adjust water/sewer split to 50/50 or leave at 40/60

FY24 Town Rate Comparison



- FY23 Rates still being shown for Hamilton and Purcellville
- Blended rate = average system user rate (Round Hill = 0.14*inside + 0.86*outside)
 - Only Hamilton (67%) and Round Hill (86%) have a majority of users out-of-town
 - Hamilton has 2 out-of-town users for every 1 in-town user
 - Round Hill has 6 out-of-town users for every 1 in-town user

Rates for Advertisement

General	Water	Sewer	Total In	Total Out
Current User Rates/kgal	\$7.39	\$11.09	\$18.48	\$27.72
Current Availability Fee	\$11,898	\$14,315	\$26,213	\$39,320
Current Connection Fee	\$500	\$825	\$1,325	\$1,325

■ Next Steps

- ❑ Town advertises rates
- ❑ Draft report released before June 7 meeting
- ❑ Public Hearing June 7
- ❑ Town adopts rates and report before June 30

Scenario User Rates

- 24% FY24, 5% after
- 24% FY24, 10/0% after
- 15% FY24&FY25, 5% after
- 15% FY24&FY25, 10/0% after

2024 User Rates		
Water	Sewer	Total
\$9.16	\$13.75	\$22.91
\$9.16	\$13.75	\$22.91
\$8.50	\$12.75	\$21.25
\$8.50	\$12.75	\$21.25

Scenario Avail Fees

- 24% FY24, 5% after
- 24% FY24, 10/0% after
- 15% FY24&FY25, 5% after
- 15% FY24&FY25, 10/0% after

2024 Avail Fees		
Water	Sewer	Total
\$14,754	\$17,751	\$32,505
\$14,754	\$17,751	\$32,505
\$13,683	\$16,462	\$30,145
\$13,683	\$16,462	\$30,145