

Wastewater Rates and Charges Citizen's Advisory Committee

September 20, 2018



Why are we here?



To Learn
To Discuss
To Recommend

Parking Lot Items

- **Energy**

PARKING

Where We Have Been - Where We Are Going

Meetings 1 & 2

- District Introduction
- Clean Water-Why it matters
- Wow, there's a lot of science, engineering and regulations in clean water
- Pipes and Plant-What the job takes
- Capital Improvement
 - When/Where we expand
- Reinvesting in the infrastructure

Today

- Forecasting
- Funding our Future



FINANCIALS

5 Year Expense Snapshot

Average for FY 2014-2018

| | |
|-----------------|----------------------|
| • O&M: | \$ 72,133,142 |
| • Debt Service: | \$ 32,842,382 |
| • Capital: | <u>\$109,744,251</u> |
| | \$214,719,775 |

5 Year Revenue Snapshot

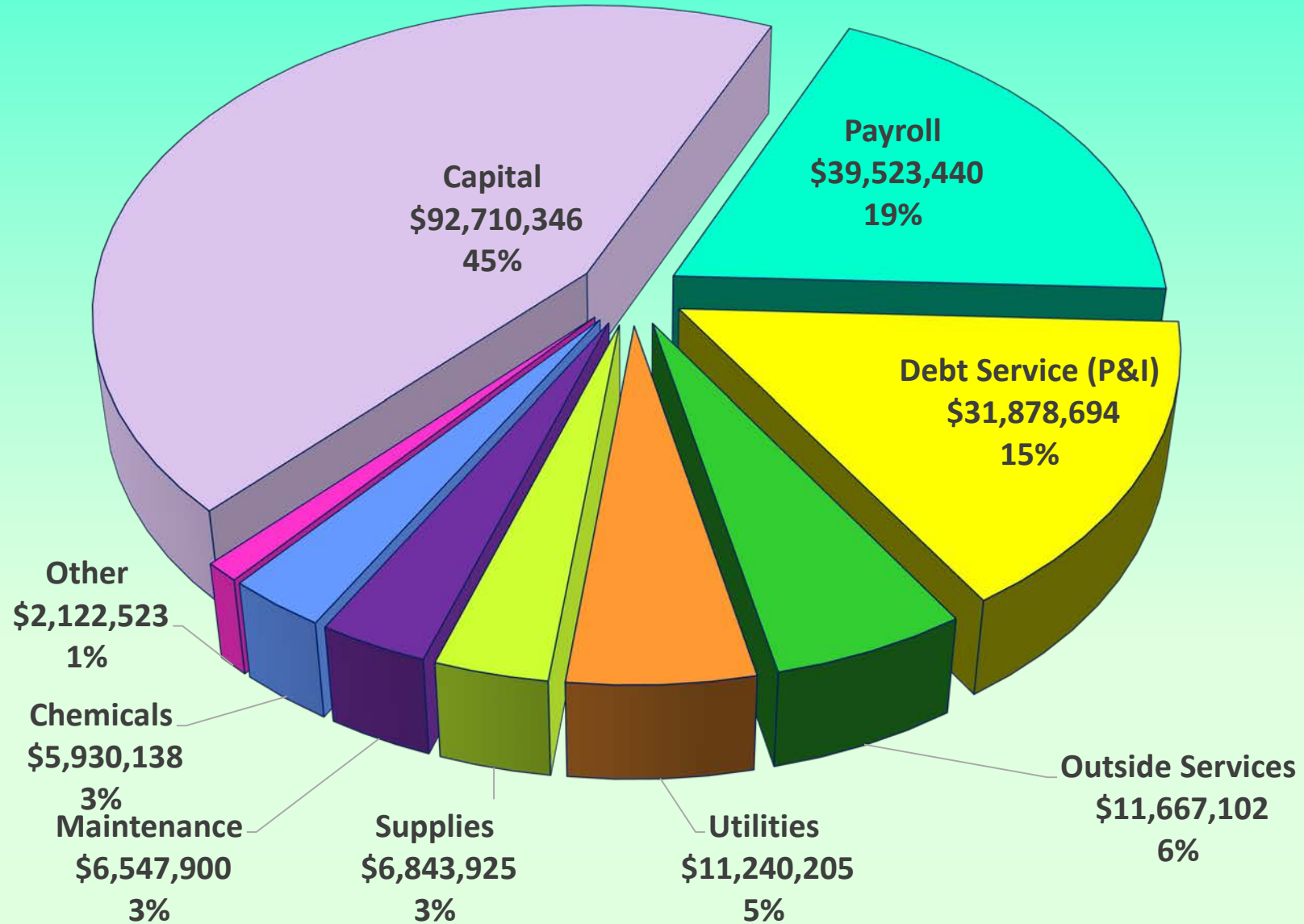
Average for FY 2014-2018

| | |
|---------------------------|---------------------|
| • Sewer Service: | \$143,617,814 |
| • Connection Fees: | \$ 25,038,592 |
| • Quarter Cent Sales Tax: | \$ 17,695,582 |
| • Fees/Sales/Other: | <u>\$ 2,822,456</u> |
| | \$189,174,444 |

Staffing

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---------------------------|------------|------------|------------|------------|------------|
| Budgeted Positions | 365 | 367 | 371 | 378 | 383 |

2019 Budget



Financial Position

Strong financials

Covers ongoing capital needs

PayGo capital at the expense of fund balance

Fund balance dropped approximately \$216 million 2015-2017

With such a large capital plan, this approach will no longer be viable

Financial Position

| Fiscal Year | 2015 | 2016 | 2017 |
|--|-----------------|-----------------|------------------|
| Beginning Balance | \$579,658,815 | \$557,458,116 | \$406,239,098 |
| Total Operating Revenue | \$149,053,954 | \$143,221,100 | \$150,127,497 |
| Total Operating Expenses | \$(67,430,761) | \$(69,114,682) | \$(75,009,762) |
| Net Operating Revenues | \$81,623,193 | \$74,106,418 | \$ 75,117,735 |
| Total Non-Operating Revenues | \$ 40,516,612 | \$36,470,993 | \$ 42,177,780 |
| Net Revenue Available for Debt Service and Capital | \$122,139,805 | \$110,577,411 | \$ 117,295,515 |
| Total Debt Service | \$(22,086,369) | \$(24,575,766) | \$ (31,558,536) |
| Net Revenue Available for Capital | \$100,053,436 | \$86,001,645 | \$ 85,736,979 |
| Capital Expenditures | \$(126,696,807) | \$(257,924,100) | \$ (126,573,952) |
| Bond Proceeds | \$4,442,672 | \$20,703,437 | \$ (1,927,069) |
| Surplus/Deficit | \$(22,200,699) | \$(151,219,018) | \$ (42,764,042) |
| Ending Balance | \$557,458,116 | \$406,239,098 | \$ 363,475,056 |



Rate Model

Assumptions: Revenues

| Revenue Type | Escalation Factor | | | | | | | | |
|---|-------------------|-------|-------|-------|-------|-------|-------|----------|-------|
| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
| Las Vegas Valley ERUs | 1.30% | 1.30% | 1.30% | 1.30% | 1.30% | 1.30% | 1.30% | 1.20% | 1.10% |
| Operating Revenues | 1.30% | 1.30% | 1.30% | 1.30% | 1.30% | 1.30% | 1.30% | 1.20% | 1.10% |
| Non-Operating Revenues | | | | | | | | | |
| Sales Tax Revenues | 3.00% | 2.50% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | -100.00% | - |
| Interest Income (Earnings Rate on Avg Fund Balance) | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% |

**Growth is not projected in areas outside of the Las Vegas Valley*

*** Average actual percentage change in the growth rate 2014-2017*

Assumptions: Expenses

| Expense Type | Escalation Factors | | | | | | | | |
|------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
| Payroll | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% |
| Benefits | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% |
| Maintenance | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Utilities | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Chemicals | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Outside Services | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Supplies | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Other Expenses | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Capital* | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% |

*Source: Engineering News Record

Existing Debt

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Parity Debt | | | | | | | | | | |
| Series 2007 | \$ 1,468,800 | | | | | | | | | |
| Series 2008 | \$ 3,109,063 | \$ 3,087,638 | | | | | | | | |
| Series 2009A | \$ 3,129,000 | \$ 3,142,125 | \$ 3,162,125 | | | | | | | |
| Series 2009B | \$ 3,166,375 | \$ 3,168,000 | \$ 3,167,250 | | | | | | | |
| Series 2015 | \$ 4,552,400 | \$ 4,552,400 | \$ 7,994,150 | \$ 7,978,525 | \$ 7,974,150 | \$ 7,970,275 | \$ 7,971,275 | \$ 7,966,650 | \$ 7,965,900 | \$ 7,963,400 |
| Series 2016 | \$ 10,513,500 | \$ 12,458,625 | \$ 12,456,375 | \$ 18,806,125 | \$ 18,814,000 | \$ 18,818,625 | \$ 18,823,875 | \$ 18,823,625 | \$ 18,821,750 | \$ 18,826,750 |
| Total Existing Parity Debt Service | \$ 25,939,138 | \$ 26,408,788 | \$ 26,779,900 | \$ 26,784,650 | \$ 26,788,150 | \$ 26,788,900 | \$ 26,795,150 | \$ 26,790,275 | \$ 26,787,650 | \$ 26,790,150 |
| Subordinate Debt | | | | | | | | | | |
| SRF Loan 2009C | \$ 310,529 | \$ 310,529 | \$ 310,529 | \$ 310,529 | \$ 310,529 | \$ 310,529 | \$ 310,529 | \$ 310,529 | \$ 310,529 | \$ 310,529 |
| SRF Loan 2011A | \$ 2,999,883 | \$ 2,999,883 | \$ 2,999,883 | \$ 2,999,883 | \$ 2,999,883 | \$ 2,999,883 | \$ 2,999,883 | \$ 2,999,883 | \$ 2,999,883 | \$ 2,999,883 |
| SRF Loan 2012A | \$ 2,159,495 | \$ 2,159,495 | \$ 2,159,495 | \$ 2,159,495 | \$ 2,159,495 | \$ 2,159,495 | \$ 2,159,495 | \$ 2,159,495 | \$ 2,159,495 | \$ 2,159,495 |
| Total Existing Subordinate Debt Service | \$ 5,469,906 | \$ 5,469,906 | \$ 5,469,906 | \$ 5,469,906 | \$ 5,469,906 | \$ 5,469,906 | \$ 5,469,906 | \$ 5,469,906 | \$ 5,469,906 | \$ 5,469,906 |
| Total Existing Debt Service | \$ 31,409,044 | \$ 31,878,694 | \$ 32,249,806 | \$ 32,254,556 | \$ 32,258,056 | \$ 32,258,806 | \$ 32,265,056 | \$ 32,260,181 | \$ 32,257,556 | \$ 32,260,056 |
| Total Outstanding Principal | \$397,985,000 | \$388,125,000 | \$377,270,000 | \$365,470,000 | \$353,060,000 | \$340,010,000 | \$326,290,000 | \$311,860,000 | \$296,695,000 | \$280,755,000 |

Assumptions - Baseline Projections

- Without rate increases and debt proceeds, the District will not be able to fund the capital plan
 - Operating expenses grow faster (3-4%) than operating revenues (average growth of 2% including new development)
 - Total available revenues after O&M and debt service of \$782 million compared to planned capital expenditures of \$1.50 billion

Assumptions-Baseline Projections

| Proforma Projections | | | | | | | | | | | | |
|---|--|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|
| Fiscal Year | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2018-2027 |
| Beginning Balance | | \$ 363,475,056 | \$ 382,740,172 | \$ 391,586,029 | \$ 363,508,939 | \$ 311,356,170 | \$ 207,410,927 | \$ 113,508,411 | \$ (58,021,562) | \$ (203,319,713) | \$ (328,667,622) | |
| Total Operating Revenues | | \$ 148,534,702 | \$ 153,374,929 | \$ 157,556,962 | \$ 162,761,956 | \$ 164,826,158 | \$ 166,917,194 | \$ 169,035,413 | \$ 171,181,170 | \$ 173,187,617 | \$ 175,048,931 | \$ 1,642,425,032 |
| Total Operating Expenses | | \$ (74,771,253) | \$ (81,386,661) | \$ (84,224,500) | \$ (87,163,800) | \$ (93,002,700) | \$ (97,513,516) | \$ (99,636,623) | \$ (103,132,900) | \$ (106,754,200) | \$ (110,505,100) | \$ (938,091,253) |
| Net Operating Revenues | | \$ 73,763,449 | \$ 71,988,268 | \$ 73,332,462 | \$ 75,598,156 | \$ 71,823,458 | \$ 69,403,678 | \$ 69,398,790 | \$ 68,048,270 | \$ 66,433,417 | \$ 64,543,831 | \$ 704,333,779 |
| Connection Fees | | \$ 26,990,945 | \$ 38,588,383 | \$ 18,109,991 | \$ 18,345,421 | \$ 18,873,000 | \$ 19,532,448 | \$ 19,786,370 | \$ 20,043,593 | \$ 19,750,351 | \$ 18,418,851 | \$ 218,439,353 |
| Sales Tax Revenues | | \$ 18,906,677 | \$ 19,769,368 | \$ 20,263,603 | \$ 20,668,875 | \$ 21,082,252 | \$ 21,503,897 | \$ 21,933,975 | \$ 22,372,655 | \$ - | \$ - | \$ 166,501,302 |
| Other Non-Operating Revenues | | \$ - | \$ 3,618,284 | \$ 3,509,788 | \$ 3,108,639 | \$ 2,328,149 | \$ 1,338,910 | \$ 25,000 | \$ 25,000 | \$ 25,000 | \$ 25,000 | \$ 14,003,770 |
| Total Non-Operating Revenues | | \$ 45,897,622 | \$ 61,976,035 | \$ 41,883,382 | \$ 42,122,935 | \$ 42,283,401 | \$ 42,375,256 | \$ 41,745,346 | \$ 42,441,248 | \$ 19,775,351 | \$ 18,443,851 | \$ 398,944,426 |
| Net Revenue Available for Debt Service and Capital | | \$ 119,661,071 | \$ 133,964,303 | \$ 115,215,844 | \$ 117,721,091 | \$ 114,106,858 | \$ 111,778,934 | \$ 111,144,136 | \$ 110,489,517 | \$ 86,208,768 | \$ 82,987,682 | \$ 1,103,278,204 |
| Existing Debt Service | | \$ (31,409,044) | \$ (31,878,694) | \$ (32,249,806) | \$ (32,254,556) | \$ (32,258,056) | \$ (32,258,806) | \$ (32,265,056) | \$ (32,260,181) | \$ (32,257,556) | \$ (32,260,056) | \$ (321,351,814) |
| New Debt Service | | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Debt Service | | \$ (31,409,044) | \$ (31,878,694) | \$ (32,249,806) | \$ (32,254,556) | \$ (32,258,056) | \$ (32,258,806) | \$ (32,265,056) | \$ (32,260,181) | \$ (32,257,556) | \$ (32,260,056) | \$ (321,351,814) |
| Net Revenue Available for Capital | | \$ 88,252,027 | \$ 102,085,610 | \$ 82,966,037 | \$ 85,466,535 | \$ 81,848,802 | \$ 79,520,127 | \$ 78,879,079 | \$ 78,229,336 | \$ 53,951,211 | \$ 50,727,626 | \$ 781,926,391 |
| Capital Expenditures | | \$ (68,986,911) | \$ (93,239,753) | \$ (111,043,128) | \$ (137,619,304) | \$ (185,794,044) | \$ (173,422,644) | \$ (250,409,052) | \$ (223,527,487) | \$ (179,299,120) | \$ (79,896,550) | \$ (1,503,237,993) |
| Bond Proceeds | | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Surplus/Deficit | | \$ 19,265,116 | \$ 8,845,857 | \$ (28,077,090) | \$ (52,152,769) | \$ (103,945,242) | \$ (93,902,517) | \$ (171,529,972) | \$ (145,298,151) | \$ (125,347,909) | \$ (29,168,925) | \$ (721,311,603) |
| Ending Balance | | \$ 382,740,172 | \$ 391,586,029 | \$ 363,508,939 | \$ 311,356,170 | \$ 207,410,927 | \$ 113,508,411 | \$ (58,021,562) | \$ (203,319,713) | \$ (328,667,622) | \$ (357,836,547) | |
| | | | | | | | | | | | | |
| <i>Reserve Requirements</i> | | \$ 168,091,974 | \$ 170,902,922 | \$ 172,861,263 | \$ 176,845,047 | \$ 181,838,977 | \$ 187,822,867 | \$ 194,773,949 | \$ 200,186,259 | \$ 205,335,887 | \$ 208,498,017 | |
| <i>All-in Pledged Revenues</i> | | \$ 119,661,071 | \$ 133,964,303 | \$ 115,215,844 | \$ 117,721,091 | \$ 114,106,858 | \$ 111,778,934 | \$ 111,144,136 | \$ 110,489,517 | \$ 86,208,768 | \$ 82,987,682 | |
| All-in Debt Service Coverage | | 3.81x | 4.20x | 3.57x | 3.65x | 3.54x | 3.47x | 3.44x | 3.42x | 2.67x | 2.57x | |
| <i>Pledged Revenues ex. Connection Fees and Sales Tax</i> | | \$ 73,763,449 | \$ 75,606,552 | \$ 76,842,250 | \$ 78,706,795 | \$ 74,151,607 | \$ 70,742,588 | \$ 69,423,790 | \$ 68,073,270 | \$ 66,458,417 | \$ 64,568,831 | |
| Debt Service Coverage | | 2.35x | 2.37x | 2.38x | 2.44x | 2.30x | 2.19x | 2.15x | 2.11x | 2.06x | 2.00x | |



Status Quo – Projected Funding Gap

Projections indicate a funding gap of approximately \$721 million over the next 10 years

Funding Options

Extend Sales Tax

- Approximately \$46 million of additional revenues (2026 & 2027)
- Requires Board of County Commission action

Funding Options

Sewer Service Charge

- 1% annual rate increases
2020 to 2027: \$73.3 million
- 2% annual rate increases
2020 to 2027: \$150.7 million
- 3% annual rate increases
2020 to 2027: \$196.6 million

Approximately 9.85% per year (FY2020-2027) would be sufficient to fund entire capital program while maintaining reserve levels

Annual Sewer Service Charge with Annual Increase

Current Charge \$221.09 ERU

| | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|-------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1% | \$223.30 | \$225.53 | \$227.79 | \$230.07 | \$232.37 | \$234.69 | \$237.04 | \$239.41 |
| 2% | \$225.51 | \$230.02 | \$234.62 | \$239.31 | \$244.10 | \$248.98 | \$253.96 | \$259.04 |
| 3% | \$227.72 | \$234.55 | \$241.59 | \$248.84 | \$256.30 | \$263.99 | \$271.91 | \$280.07 |
| 4% | \$229.93 | \$239.13 | \$248.70 | \$258.64 | \$268.99 | \$279.75 | \$290.94 | \$302.58 |
| 5% | \$232.14 | \$243.75 | \$255.94 | \$268.74 | \$282.17 | \$296.28 | \$311.10 | \$326.65 |
| 6% | \$234.36 | \$248.42 | \$263.32 | \$279.12 | \$295.87 | \$313.62 | \$332.44 | \$352.38 |
| 7% | \$236.57 | \$253.13 | \$270.84 | \$289.80 | \$310.09 | \$331.80 | \$355.02 | \$379.87 |
| 8% | \$238.78 | \$257.88 | \$278.51 | \$300.79 | \$324.85 | \$350.84 | \$378.91 | \$409.22 |
| 9% | \$240.99 | \$262.68 | \$286.32 | \$312.09 | \$340.17 | \$370.79 | \$404.16 | \$440.54 |
| 9.85% | \$242.87 | \$266.79 | \$293.07 | \$321.94 | \$353.65 | \$388.48 | \$426.75 | \$468.78 |

Funding Options

Connection Fee

- Remain at \$2195
- Increase to accommodate for expansion based on formula
 - Increasing from \$2,195 to \$2,765 in 2020 results in an additional \$39.7 million through 2027
- \$2,765 in FY2020; CPI Index (2.25%) from 2021-2027: \$55.8 million



Rate Model Scenarios

Scenario 1

—

No New Debt

In order to maintain the targeted reserve and coverage levels, the District would need to raise rates as follows:

Either:

A. Increase Sewer Service Charge by 9.85% yearly 2020-2027 and Connection fee stays at \$2195

OR

B. Increase both Sewer Service Charge and Connection Fee based on the formula:

- Sewer Service Charge: increases 8.9% annually 2020-2027
- Connection Fee: \$2,765 in FY 2020, annual CPI increases of 2.25% in 2021-2027

Scenario 1 – No Debt

Option B (Blended Increase of Rates)

| Proforma Projections | | | | | | | | | | | | |
|--|--|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|
| Fiscal Year | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2018-2027 |
| Beginning Balance | | \$ 363,475,056 | \$ 382,740,172 | \$ 391,586,029 | \$ 382,387,114 | \$ 366,039,102 | \$ 316,117,126 | \$ 297,134,227 | \$ 224,095,587 | \$ 201,291,118 | \$ 225,506,087 | |
| Total Operating Revenues | | \$ 148,534,702 | \$ 153,374,929 | \$ 171,637,924 | \$ 192,914,988 | \$ 212,049,653 | \$ 233,604,481 | \$ 257,753,080 | \$ 283,662,474 | \$ 312,225,028 | \$ 343,567,357 | \$ 2,309,324,617 |
| Total Operating Expenses | | \$ (74,771,253) | \$ (81,386,661) | \$ (84,224,500) | \$ (87,163,800) | \$ (93,002,700) | \$ (97,513,516) | \$ (99,636,623) | \$ (103,132,900) | \$ (106,754,200) | \$ (110,505,100) | \$ (938,091,253) |
| Net Operating Revenues | | \$ 73,763,449 | \$ 71,988,268 | \$ 87,413,424 | \$ 105,751,188 | \$ 119,046,953 | \$ 136,090,965 | \$ 158,116,457 | \$ 180,529,574 | \$ 205,470,828 | \$ 233,062,257 | \$ 1,371,233,364 |
| Connection Fees | | \$ 26,990,945 | \$ 38,588,383 | \$ 22,812,813 | \$ 23,629,341 | \$ 24,855,825 | \$ 26,303,119 | \$ 27,244,573 | \$ 28,219,725 | \$ 28,432,519 | \$ 27,112,300 | \$ 274,189,542 |
| Sales Tax Revenues | | \$ 18,906,677 | \$ 19,769,368 | \$ 20,263,603 | \$ 20,668,875 | \$ 21,082,252 | \$ 21,503,897 | \$ 21,933,975 | \$ 22,372,655 | \$ - | \$ - | \$ 166,501,302 |
| Other Non-Operating Revenues | | \$ - | \$ 3,618,284 | \$ 3,604,179 | \$ 3,476,444 | \$ 3,145,094 | \$ 2,800,570 | \$ 2,340,462 | \$ 1,861,247 | \$ 1,868,299 | \$ 2,743,180 | \$ 25,457,760 |
| Total Non-Operating Revenues | | \$ 45,897,622 | \$ 61,976,035 | \$ 46,680,595 | \$ 47,774,660 | \$ 49,083,171 | \$ 50,607,586 | \$ 51,519,011 | \$ 52,453,626 | \$ 30,300,818 | \$ 29,855,480 | \$ 466,148,605 |
| Net Revenue Available for Debt Service and Capital | | \$ 119,661,071 | \$ 133,964,303 | \$ 134,094,019 | \$ 153,525,848 | \$ 168,130,125 | \$ 186,698,551 | \$ 209,635,468 | \$ 232,983,200 | \$ 235,771,645 | \$ 262,917,737 | \$ 1,837,381,969 |
| Existing Debt Service | | \$ (31,409,044) | \$ (31,878,694) | \$ (32,249,806) | \$ (32,254,556) | \$ (32,258,056) | \$ (32,258,806) | \$ (32,265,056) | \$ (32,260,181) | \$ (32,257,556) | \$ (32,260,056) | \$ (321,351,814) |
| New Debt Service | | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Debt Service | | \$ (31,409,044) | \$ (31,878,694) | \$ (32,249,806) | \$ (32,254,556) | \$ (32,258,056) | \$ (32,258,806) | \$ (32,265,056) | \$ (32,260,181) | \$ (32,257,556) | \$ (32,260,056) | \$ (321,351,814) |
| Net Revenue Available for Capital | | \$ 88,252,027 | \$ 102,085,610 | \$ 101,844,213 | \$ 121,271,292 | \$ 135,872,068 | \$ 154,439,745 | \$ 177,370,412 | \$ 200,723,019 | \$ 203,514,089 | \$ 230,657,681 | \$ 1,516,030,155 |
| Capital Expenditures | | \$ (68,986,911) | \$ (93,239,753) | \$ (111,043,128) | \$ (137,619,304) | \$ (185,794,044) | \$ (173,422,644) | \$ (250,409,052) | \$ (223,527,487) | \$ (179,299,120) | \$ (79,896,550) | \$ (1,503,237,993) |
| Bond Proceeds | | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Surplus/Deficit | | \$ 19,265,116 | \$ 8,845,857 | \$ (9,198,915) | \$ (16,348,012) | \$ (49,921,976) | \$ (18,982,899) | \$ (73,038,640) | \$ (22,804,468) | \$ 24,214,969 | \$ 150,761,130 | \$ 12,792,162 |
| Ending Balance | | \$ 382,740,172 | \$ 391,586,029 | \$ 382,387,114 | \$ 366,039,102 | \$ 316,117,126 | \$ 297,134,227 | \$ 224,095,587 | \$ 201,291,118 | \$ 225,506,087 | \$ 376,267,218 | |
| | | | | | | | | | | | | |
| Reserve Requirements | | \$ 169,591,974 | \$ 170,902,922 | \$ 172,861,263 | \$ 176,845,047 | \$ 181,838,977 | \$ 187,822,867 | \$ 194,773,949 | \$ 200,186,259 | \$ 205,335,887 | \$ 208,498,017 | |
| All-in Pledged Revenues | | \$ 119,661,071 | \$ 133,964,303 | \$ 134,094,019 | \$ 153,525,848 | \$ 168,130,125 | \$ 186,698,551 | \$ 209,635,468 | \$ 232,983,200 | \$ 235,771,645 | \$ 262,917,737 | |
| All-in Debt Service Coverage | | 3.81x | 4.20x | 4.16x | 4.76x | 5.21x | 5.79x | 6.50x | 7.22x | 7.31x | 8.15x | |
| Pledged Revenues ex. Connection Fees and Sales Tax | | \$ 73,763,449 | \$ 75,606,552 | \$ 91,017,603 | \$ 109,227,632 | \$ 122,192,048 | \$ 138,891,535 | \$ 160,456,920 | \$ 182,390,821 | \$ 207,339,127 | \$ 235,805,437 | |
| Debt Service Coverage | | 2.35x | 2.37x | 2.82x | 3.39x | 3.79x | 4.31x | 4.97x | 5.65x | 6.43x | 7.31x | |

Scenario 2 – Fund Entire CIP with Debt

- Assumes issuances every three years beginning in 2019, and 5% interest rate debt
 - Results in \$1.45B of new debt
 - Total debt \$1.72B
- In order to maintain required reserves and at least 2.0x debt service coverage, the District would need to either:
 - A. Increase Sewer Service Charge by 9.70% annually for FY 2020-2027 and Connection fee stays at \$2195

OR

 - B. Increase both the Sewer Service Charge and the Connection fee based on the formula:
 - Sewer Service Charge increases by 9.10% annually FY2020 – 2027
 - Connection Fee: \$2,765 in 2020, annual CPI increases of 2.25% in 2021-2027

Scenario 2 – Fund Entire CIP with Debt Option B (Blended Increase of Rates)

| Proforma Projections | | | | | | | | | | | | |
|--|--|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|
| Fiscal Year | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2018-2027 |
| Beginning Balance | | \$ 363,475,056 | \$ 382,740,172 | \$ 735,206,315 | \$ 712,342,704 | \$ 682,439,916 | \$ 1,232,794,260 | \$ 1,170,752,313 | \$ 1,054,651,299 | \$ 1,475,032,052 | \$ 1,421,879,490 | |
| Total Operating Revenues | | \$ 148,534,702 | \$ 153,374,929 | \$ 171,829,850 | \$ 193,352,929 | \$ 213,759,344 | \$ 235,672,707 | \$ 260,240,713 | \$ 287,664,929 | \$ 316,813,050 | \$ 348,832,407 | \$ 2,330,075,559 |
| Total Operating Expenses | | \$ (74,771,253) | \$ (81,386,661) | \$ (84,224,500) | \$ (87,163,800) | \$ (93,002,700) | \$ (97,513,516) | \$ (99,636,623) | \$ (103,132,900) | \$ (106,754,200) | \$ (110,505,100) | \$ (938,091,253) |
| Net Operating Revenues | | \$ 73,763,449 | \$ 71,988,268 | \$ 87,605,350 | \$ 106,189,129 | \$ 120,756,644 | \$ 138,159,191 | \$ 160,604,090 | \$ 184,532,029 | \$ 210,058,850 | \$ 238,327,307 | \$ 1,391,984,306 |
| Connection Fees | | \$ 26,990,945 | \$ 38,588,383 | \$ 22,812,813 | \$ 23,629,341 | \$ 24,855,825 | \$ 26,303,119 | \$ 27,244,573 | \$ 28,219,725 | \$ 28,432,519 | \$ 27,112,300 | \$ 274,189,542 |
| Sales Tax Revenues | | \$ 18,906,677 | \$ 19,769,368 | \$ 20,263,603 | \$ 20,668,875 | \$ 21,082,252 | \$ 21,503,897 | \$ 21,933,975 | \$ 22,372,655 | \$ - | \$ - | \$ 166,501,302 |
| Other Non-Operating Revenues | | \$ - | \$ 5,336,386 | \$ 6,972,058 | \$ 6,708,226 | \$ 9,310,484 | \$ 11,752,046 | \$ 10,861,331 | \$ 12,382,730 | \$ 14,218,871 | \$ 14,321,781 | \$ 91,863,914 |
| Total Non-Operating Revenues | | \$ 45,897,622 | \$ 63,694,137 | \$ 50,048,474 | \$ 51,006,442 | \$ 55,248,561 | \$ 59,559,062 | \$ 60,039,880 | \$ 62,975,109 | \$ 42,651,390 | \$ 41,434,081 | \$ 532,554,758 |
| Net Revenue Available for Debt Service and Capital | | \$ 119,661,071 | \$ 135,682,405 | \$ 137,653,824 | \$ 157,195,572 | \$ 176,005,205 | \$ 197,718,253 | \$ 220,643,969 | \$ 247,507,139 | \$ 252,710,239 | \$ 279,761,388 | \$ 1,924,539,065 |
| Existing Debt Service | | \$ (31,409,044) | \$ (31,878,694) | \$ (32,249,806) | \$ (32,254,556) | \$ (32,258,056) | \$ (32,258,806) | \$ (32,265,056) | \$ (32,260,181) | \$ (32,257,556) | \$ (32,260,056) | \$ (321,351,814) |
| New Debt Service | | \$ - | \$ - | \$ (17,224,500) | \$ (17,224,500) | \$ (17,224,500) | \$ (54,078,750) | \$ (54,070,875) | \$ (54,061,875) | \$ (94,306,125) | \$ (93,870,250) | \$ (402,061,375) |
| Total Debt Service | | \$ (31,409,044) | \$ (31,878,694) | \$ (49,474,306) | \$ (49,479,056) | \$ (49,482,556) | \$ (86,337,556) | \$ (86,335,931) | \$ (86,322,056) | \$ (126,563,681) | \$ (126,130,306) | \$ (723,413,189) |
| Net Revenue Available for Capital | | \$ 88,252,027 | \$ 103,803,711 | \$ 88,179,518 | \$ 107,716,515 | \$ 126,522,648 | \$ 111,380,697 | \$ 134,308,038 | \$ 161,185,082 | \$ 126,146,558 | \$ 153,631,082 | \$ 1,201,125,876 |
| Capital Expenditures | | \$ (68,986,911) | \$ (93,239,753) | \$ (111,043,128) | \$ (137,619,304) | \$ (185,794,044) | \$ (173,422,644) | \$ (250,409,052) | \$ (223,527,487) | \$ (179,299,120) | \$ (79,896,550) | \$ (1,503,237,993) |
| Bond Proceeds | | \$ - | \$ 341,902,184 | \$ - | \$ - | \$ 609,625,740 | \$ - | \$ - | \$ 482,723,158 | \$ - | \$ - | \$ 1,434,251,082 |
| Surplus/Deficit | | \$ 19,265,116 | \$ 352,466,143 | \$ (22,863,610) | \$ (29,902,789) | \$ 550,354,344 | \$ (62,041,947) | \$ (116,101,014) | \$ 420,380,753 | \$ (53,152,563) | \$ 73,734,531 | \$ 1,132,138,965 |
| Ending Balance | | \$ 382,740,172 | \$ 735,206,315 | \$ 712,342,704 | \$ 682,439,916 | \$ 1,232,794,260 | \$ 1,170,752,313 | \$ 1,054,651,299 | \$ 1,475,032,052 | \$ 1,421,879,490 | \$ 1,495,614,021 | |
| | | | | | | | | | | | | |
| Reserve Requirements | | \$ 169,591,974 | \$ 194,269,922 | \$ 196,228,263 | \$ 200,212,047 | \$ 251,826,352 | \$ 257,810,242 | \$ 264,761,324 | \$ 301,819,384 | \$ 306,969,012 | \$ 310,131,142 | |
| All-in Pledged Revenues | | \$ 119,661,071 | \$ 135,682,405 | \$ 137,653,824 | \$ 157,195,572 | \$ 176,005,205 | \$ 197,718,253 | \$ 220,643,969 | \$ 247,507,139 | \$ 252,710,239 | \$ 279,761,388 | |
| All-in Debt Service Coverage | | 3.81x | 4.26x | 2.78x | 3.18x | 3.56x | 2.29x | 2.56x | 2.87x | 2.00x | 2.22x | |
| Pledged Revenues ex. Connection Fees and Sales Tax | | \$ 73,763,449 | \$ 77,324,654 | \$ 94,577,408 | \$ 112,897,356 | \$ 130,067,128 | \$ 149,911,237 | \$ 171,465,421 | \$ 196,914,759 | \$ 224,277,720 | \$ 252,649,088 | |
| Debt Service Coverage | | 2.35x | 2.43x | 1.91x | 2.28x | 2.63x | 1.74x | 1.99x | 2.28x | 1.77x | 2.00x | |

Scenario 3 – Partially Debt Funded CIP

- Assumes two issuances of \$200 million for a combined \$400 million in new debt, utilizing a 5% interest rate
- In order to maintain required reserves and at least 2.0x debt service coverage, the District would need to either:

A. Increase the Sewer Service Charge by 3.9% annually for FY 2020-2027 and Connection fee stays at \$2195

OR

B. Increase both the Sewer Service Charge and the Connection fee based on the formula

- Increase Sewer Service Charge by 3.10% annually
- Connection Fee: \$2,765 in 2020, annual CPI increases of 2.25% in 2021-2027

Scenario 3 – Partially Debt Funded CIP

Option B (Blended Increase of Rates)

| Proforma Projections | | | | | | | | | | | | |
|---|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|--|
| Fiscal Year | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2018-2027 | |
| Beginning Balance | \$ 363,475,056 | \$ 382,740,172 | \$ 391,586,029 | \$ 373,917,287 | \$ 338,280,734 | \$ 458,284,884 | \$ 386,049,994 | \$ 244,164,009 | \$ 336,320,035 | \$ 241,222,151 | | |
| Total Operating Revenues | \$ 148,534,702 | \$ 153,374,929 | \$ 163,210,447 | \$ 173,807,588 | \$ 181,403,732 | \$ 189,272,823 | \$ 198,436,564 | \$ 207,923,232 | \$ 217,535,950 | \$ 227,254,187 | \$ 1,860,754,154 | |
| Total Operating Expenses | \$ (74,771,253) | \$ (81,386,661) | \$ (84,224,500) | \$ (87,163,800) | \$ (93,002,700) | \$ (97,513,516) | \$ (99,636,623) | \$ (103,132,900) | \$ (106,754,200) | \$ (110,505,100) | \$ (938,091,253) | |
| Net Operating Revenues | \$ 73,763,449 | \$ 71,988,268 | \$ 78,985,947 | \$ 86,643,788 | \$ 88,401,032 | \$ 91,759,307 | \$ 98,799,941 | \$ 104,790,332 | \$ 110,781,750 | \$ 116,749,087 | \$ 922,662,901 | |
| Connection Fees | \$ 26,990,945 | \$ 38,588,383 | \$ 22,812,813 | \$ 23,629,341 | \$ 24,855,825 | \$ 26,303,119 | \$ 27,244,573 | \$ 28,219,725 | \$ 28,432,519 | \$ 27,112,300 | \$ 274,189,542 | |
| Sales Tax Revenues | \$ 18,906,677 | \$ 19,769,368 | \$ 20,263,603 | \$ 20,668,875 | \$ 21,082,252 | \$ 21,503,897 | \$ 21,933,975 | \$ 22,372,655 | \$ - | \$ - | \$ 166,501,302 | |
| Other Non-Operating Revenues | \$ - | \$ 3,618,284 | \$ 3,561,830 | \$ 3,295,303 | \$ 3,717,141 | \$ 3,955,988 | \$ 2,885,383 | \$ 2,636,733 | \$ 2,622,024 | \$ 2,189,827 | \$ 28,482,514 | |
| Total Non-Operating Revenues | \$ 45,897,622 | \$ 61,976,035 | \$ 46,638,246 | \$ 47,593,519 | \$ 49,655,218 | \$ 51,763,004 | \$ 52,063,932 | \$ 53,229,113 | \$ 31,054,543 | \$ 29,302,127 | \$ 469,173,359 | |
| Net Revenue Available for Debt Service and Capital | \$ 119,661,071 | \$ 133,964,303 | \$ 125,624,193 | \$ 134,237,307 | \$ 138,056,251 | \$ 143,522,311 | \$ 150,863,873 | \$ 158,019,445 | \$ 141,836,293 | \$ 146,051,214 | \$ 1,391,836,259 | |
| Existing Debt Service | \$ (31,409,044) | \$ (31,878,694) | \$ (32,249,806) | \$ (32,254,556) | \$ (32,258,056) | \$ (32,258,806) | \$ (32,265,056) | \$ (32,260,181) | \$ (32,257,556) | \$ (32,260,056) | \$ (321,351,814) | |
| New Debt Service | \$ - | \$ - | \$ - | \$ - | \$ - | \$ (10,075,750) | \$ (10,075,750) | \$ (10,075,750) | \$ (25,377,500) | \$ (25,236,250) | \$ (80,841,000) | |
| Total Debt Service | \$ (31,409,044) | \$ (31,878,694) | \$ (32,249,806) | \$ (32,254,556) | \$ (32,258,056) | \$ (42,334,556) | \$ (42,340,806) | \$ (42,335,931) | \$ (57,635,056) | \$ (57,496,306) | \$ (402,192,814) | |
| Net Revenue Available for Capital | \$ 88,252,027 | \$ 102,085,610 | \$ 93,374,386 | \$ 101,982,750 | \$ 105,798,194 | \$ 101,187,754 | \$ 108,523,066 | \$ 115,683,514 | \$ 84,201,236 | \$ 88,554,907 | \$ 989,643,445 | |
| Capital Expenditures | \$ (68,986,911) | \$ (93,239,753) | \$ (111,043,128) | \$ (137,619,304) | \$ (185,794,044) | \$ (173,422,644) | \$ (250,409,052) | \$ (223,527,487) | \$ (179,299,120) | \$ (79,896,550) | \$ (1,503,237,993) | |
| Bond Proceeds | \$ - | \$ - | \$ - | \$ - | \$ 200,000,000 | \$ - | \$ - | \$ 200,000,000 | \$ - | \$ - | \$ 400,000,000 | |
| Surplus/Deficit | \$ 19,265,116 | \$ 8,845,857 | \$ (17,668,742) | \$ (35,636,553) | \$ 120,004,150 | \$ (72,234,889) | \$ (141,885,985) | \$ 92,156,026 | \$ (95,097,884) | \$ 8,658,357 | \$ (113,594,548) | |
| Ending Balance | \$ 382,740,172 | \$ 391,586,029 | \$ 373,917,287 | \$ 338,280,734 | \$ 458,284,884 | \$ 386,049,994 | \$ 244,164,009 | \$ 336,320,035 | \$ 241,222,151 | \$ 249,880,508 | | |
| <i>Reserve Requirements</i> | \$ 169,591,974 | \$ 170,902,922 | \$ 172,861,263 | \$ 176,845,047 | \$ 197,140,727 | \$ 203,124,617 | \$ 210,075,699 | \$ 228,727,759 | \$ 233,877,387 | \$ 237,039,517 | | |
| <i>All-in Pledged Revenues</i> | \$ 119,661,071 | \$ 133,964,303 | \$ 125,624,193 | \$ 134,237,307 | \$ 138,056,251 | \$ 143,522,311 | \$ 150,863,873 | \$ 158,019,445 | \$ 141,836,293 | \$ 146,051,214 | | |
| All-in Debt Service Coverage | 3.81x | 4.20x | 3.90x | 4.16x | 4.28x | 3.39x | 3.56x | 3.73x | 2.46x | 2.54x | | |
| <i>Pledged Revenues ex. Connection Fees and Sales Tax</i> | \$ 73,763,449 | \$ 75,606,552 | \$ 82,547,777 | \$ 89,939,091 | \$ 92,118,174 | \$ 95,715,295 | \$ 101,685,324 | \$ 107,427,066 | \$ 113,403,774 | \$ 118,938,913 | | |
| Debt Service Coverage | 2.35x | 2.37x | 2.56x | 2.79x | 2.86x | 2.26x | 2.40x | 2.54x | 1.97x | 2.07x | | |

Discussion

Other Scenarios?

Next Meeting:
October 4 at 11:30 AM
at the Las Vegas Metro Chamber of Commerce
Conference Room
575 Symphony Park, Suite 100



- **Rate Scenarios**

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