

**North of River Sanitary District**  
**Financial Plan, Sewer Service Charge &  
Capacity Fee Study**

**March 28, 2023**



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March 28, 2023

North of River Sanitary District  
204 Universe Ave  
Bakersfield, CA 93308

Attn: Patrick Ostly, District Manager

Re: Financial Plan, Sewer Service Charge & Capacity Fee Study

Bartle Wells Associates is pleased to submit the attached Financial Plan, Sewer Service Charge & Capacity Fee Study. Our study was developed in conjunction with the 2022 Sanitary Sewer Master Plan provided by Ardurra which was adopted by the District Board on March 21, 2023. The study develops long-term financial projections and recommends sewer service charges for the next 5 years and an updated sewer capacity fee. The recommended rates are designed to meet the operational, debt service, and capital funding needs of the District's sewer enterprise, comply with legal requirements, and be fair and equitable to all customers.

The proposed sewer service charges incorporate gradual overall rate increases needed to meet future funding needs. Sewer service charge increases are phased in over five years to minimize the annual impact on customers. The proposed sewer capacity fees are designed to equitably recover the costs of infrastructure and assets benefiting new development.

Based on a survey of 9 regional agencies, the District's sewer bills for typical single family homes are below average compared to other regional agencies. With the proposed sewer service charge increases, typical residential sewer bills are projected to remain below average.

We enjoyed working with the District on the study and appreciate the ongoing assistance and input received throughout the project. Please contact us anytime if you have questions about the recommendations in this report or other related issues.

Sincerely,

BARTLE WELLS ASSOCIATES

Douglas Dove, PE, CIPFA  
Principal/President

Michael DeGroot  
Vice President

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## **Executive Summary**

### **Purpose**

North of River Sanitary District (“NORS D” or “District”) retained Bartle Wells Associates (“BWA”) to develop a financial plan and cost of service study for the District’s rates (referred herein as “sewer service charges”) and sewer capacity fee to ensure financial stability over the next five years (FY 2023/24 to FY 2027/28). NORS D last completed a rate study and Proposition 218 process in 2018 resulting in approved minimum rate increases of 1.25% per year from FY 2018/19 to FY 2022/23, subject to annual adjustments based on the Consumer Price Index for the Los Angeles Area, not to exceed 5% per year. The final increase was implemented July 1, 2022, resulting in the District reaching the end of the 5-year rate increase plan. The sewer service charge increased from \$26.01 per single family residential equivalent (SFRE) per month to \$30.77 per month. The District last completed a sewer capacity fee study in 2018, resulting in a fee of \$7,450 per SFRE. The fee was recommended to be increased annually by 4.25% and was last increased to \$8,800 in 2022.

NORS D is projecting substantial capital improvements over the next ten years related to its share of the rehabilitation and expansion of the NORS D Wastewater Treatment Plant (“WWTP”) (estimated to cost \$285.6 MM in current dollars) and the ongoing rehabilitation of its own sewer collection system (estimated to cost \$3 MM to \$5 MM per year). The existing WWTP is permitted to treat 7.5 million gallons per day (MGD).

The City of Shafter owns 2.5 MGD of the WWTP and effluent disposal facility capacity, while NORS D’s share is 5 MGD. To meet future capacity demands, a WWTP expansion of 4.5 MGD is planned to begin construction in FY 2027/28, increasing the total capacity of the WWTP to 12 MGD. Of the 4.5 MGD expansion, 3.5 MGD will be for NORS D and 1 MGD will be for the City of Shafter. The City of Shafter is estimated to pay 1/3<sup>rd</sup> of upgrade costs of the WWTP and 22.22% of the expansion related costs, for an average cost of 25.93% for all projected WWTP projects.

## Current Sewer Service Charges

**Table 1** shows the District’s current sewer service charge schedule. All customers are charged a flat rate based on SFREs. Single family units are equivalent to 1 SFRE, while multifamily customers are equivalent to 1 SFRE for the first unit, and 72% of an SFRE for each additional unit. Commercial customers are billed a fixed charge based on their estimated number of equivalent SFREs. Sewer service charges are collected on the tax roll, while sewer capacity fees are a one-time fee collected at the time of permit from new development.

**Appendix A** shows how NORSD’s sewer service charge for a single family home compares to regional agencies, while **Appendix B** shows how NORSD’s sewer capacity charge for a single family home compares to regional agencies.

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Table 1  
NORSD  
Current Sewer Services Charges and Capacity Fee

Category	FY 2022/23
<b>Sewer Service Charges</b>	<b>\$ Per Month</b>
<i>SF Unit - 01</i>	\$30.77
<i>MF Unit - 02</i>	\$22.15
<i>Comm. Unit - 03</i>	\$6.46
<b>Sewer Capacity Fee</b>	<b>One-time Fee</b>
<i>Per SFRE</i>	\$8,800

*Single family residential: 1 unit = 1 SFRE*

- *Multi-family residential: 1st unit = 1 SFRE, remaining units = 72% of SFRE*
  - *Commercial: Sewer Service Charge (SSC) Multiplier times 0.21 to determine number of SFRE*
-

## Legal Requirements for Sewer Service Charges

### District Legal Authority

The statutory authority for levying sewer rates is included in Health and Safety Code section 5471 which states:

*“...any entity shall have power, by an ordinance or resolution approved by a two-thirds vote of the members of the legislative body thereof, to prescribe, revise and collect, fees, tolls, rates, rentals, or other charges for services and facilities furnished by it, either within or without its territorial limits, in connection with its water, sanitation, storm drainage, or sewerage system.”*  
(California Health and Safety Code 5471)

### Proposition 218

Proposition 218, the “Right to Vote on Taxes Act”, was approved by California voters in November 1996 and is codified as Articles XIII C and XIII D of the California Constitution. Proposition 218 establishes requirements for imposing any new or increasing any existing property-related fees and charges.

The District must follow the procedural requirements of Proposition 218 for all sewer rate increases. These requirements include:

- 1. Noticing Requirement:** The District must mail a notice of the proposed rate increases to all affected property owners. The notice must specify the amount of the fee, the basis upon which it was calculated, the reason for the fee, and the date/time/location of a public rate hearing at which the proposed rates will be considered/adopted.
- 2. Public Hearing:** The District must hold a public hearing prior to adopting the proposed rate increases. The hearing must be held not less than 45 days after the required notices are mailed.

- 3. Rate Increases Subject to Majority Protest:** At the public hearing, the proposed rate increases are subject to majority protest. If more than 50% of affected property owners submit written protests against the proposed rate increases, the increases cannot be adopted.

Proposition 218 also established a number of substantive requirements that apply to sewer rates and charges, including:

- 1. Cost of Service** - Revenues derived from the fee or charge cannot exceed the funds required to provide the service. In essence, fees cannot exceed the “cost of service.” Agencies are allowed to carry a prudent level of reserves and to save cash for future projects.
- 2. Intended Purpose** - Revenues derived from the fee or charge can only be used for the purpose for which the fee was imposed.
- 3. Proportional Cost Recovery** - The amount of the fee or charge levied on any customer shall not exceed the proportional cost of service attributable to that customer.
- 4. Availability of Service** - No fee or charge may be imposed for a service unless that service is used by, or immediately available to, the owner of the property.
- 5. General Government Services** - No fee or charge may be imposed for general governmental services where the service is available to the public at large.

Charges for water, sewer, and refuse collection are exempt from additional voting requirements of Proposition 218, provided the charges do not exceed the cost of providing service and are adopted pursuant to procedural requirements of Proposition 218.

**Proposed Sewer Service Charges and Sewer Capacity Fee**

**Table 2** shows the maximum proposed sewer service charges and sewer capacity fee. BWA recommends a minimum rate increases of 2% per year from FY 2023/24 to FY 2027/28, subject to annual adjustments based on the Consumer Price Index for the Los Angeles Area, not to exceed 5% per year. The CPI adjustments are recommended to be based on the CPI index in the month of February proceeding the fiscal year to provide staff enough time to implement the adjustment.

Rate increases are recommended to be phased in over the next five years to minimize the impact to customers. The proposed rates and capacity fee are based on a detailed analysis of District revenues and operating and capital costs.

The sewer capacity fee is proposed to be increased annually based on the February Consumer Price Index for the Los Angeles Area.

Table 2  
 NORSD  
 Current & Proposed Monthly Sewer Services Charges and Capacity Fee

Category	Current	FY 23/24	FY 24/25	FY 25/26	FY 26/27	FY 27/28
<b>Sewer Service Charges</b>	<b>\$ per Month</b>					
<i>SF Unit - 01</i>	\$30.77	\$32.31	\$33.92	\$35.62	\$37.40	\$39.27
<i>MF Unit - 02</i>	\$22.15	\$23.26	\$24.43	\$25.65	\$26.93	\$28.28
<i>Comm. Unit - 03</i>	\$6.46	\$6.78	\$7.12	\$7.48	\$7.85	\$8.25
<b>Sewer Capacity Fee</b>	<b>One-time Fee</b>					
<i>Per SFRE</i>	\$8,800	\$9,308	+CPI	+CPI	+CPI	+CPI

*Single family residential: 1 unit = 1 SFRE*

- *Multi-family residential: 1st unit = 1 SFRE, remaining units = 72% of SFRE*
- *Commercial: Sewer Service Charge (SSC) Multiplier times 0.21 to determine number of SFRE*



## Financial Plan

### Reserve Balances

**Table 3** shows the District's current cash balances. The District is in good financial condition and has built up prudent operating and maintenance (O&M) reserves of about \$21.7 million as of June 30, 2022. Capacity fee reserves generated from the District's sewer capacity fee have generated \$40 MM of fund balance dedicated to future capital projects.

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Table 3  
NORS  
Cash Fund Balance - Sewer

<b>Cash Fund Balances</b>	<b>6/30/2022</b>
<b>Capacity Fee Reserve Fund</b>	<b>\$40,030,980</b>
<b><u>O&amp;M Reserve Fund</u></b>	
Capital Replacement Reserve Fund	\$4,444,933
Capital Improvement Reserve Fund	14,658,786
O&M Reserve Fund	1,700,000
Rate Stabilization Reserve Fund	300,000
Unallocated Balance	<u>609,497</u>
<b>Total</b>	<b>\$21,713,216</b>
<b><u>General Fund &amp; Reserve Totals</u></b>	
Fund 40280 (Sewer Service Charges)	\$61,180,346
Fund 40279 (1% allocation)	<u>563,850</u>
<b>Total</b>	<b>\$61,744,196</b>

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**Table 4** shows the District operating and maintenance budget. BWA projects 5% average annual increases based on general cost inflation. BWA projects that these costs will escalate in the future as the WWTP plant upgrade and expansion will likely require additional operations and maintenance costs in the future due to more energy intensive processes and additional staffing. The projections will be refined in future years as WWTP plant operations costs are available.

Table 4  
 NORSD  
 Expenses - Sewer

Operating Expenses	Escalator	Budget	Projection ->				
		FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
<b>220000 · Collections</b>							
220100 · Employee Salaries (Collections)	5%	\$672,000	\$705,600	\$740,880	\$777,924	\$816,820	\$857,661
220150 · Employee Expense (Collections)	5%	14,550	15,278	16,041	16,843	17,686	18,570
220200 · Safety	5%	12,000	12,600	13,230	13,892	14,586	15,315
220300 · Lift Stations	5%	103,190	108,350	113,767	119,455	125,428	131,699
220700 · Office Supplies (Collections)	5%	300	315	331	347	365	383
220800 · Computer	5%	3,650	3,833	4,024	4,225	4,437	4,658
230000 · Motor Vehicles	5%	92,970	97,619	102,499	107,624	113,006	118,656
240000 · Equipment	5%	14,638	15,370	16,138	16,945	17,793	18,682
250000 · Conveyance	5%	178,600	187,530	196,907	206,752	217,089	227,944
260000 · GIS	5%	23,000	24,150	25,358	26,625	27,957	29,354
270000 · Shop	5%	7,300	7,665	8,048	8,451	8,873	9,317
280000 · Legal (Collections)	5%	5,000	5,250	5,513	5,788	6,078	6,381
<b>Total 220000 · Collections</b>		<b>\$1,127,198</b>	<b>\$1,183,558</b>	<b>\$1,242,736</b>	<b>\$1,304,873</b>	<b>\$1,370,116</b>	<b>\$1,438,622</b>
<b>300000 · WWTP</b>							
300100 · Employee Salaries (Operator)	5%	\$803,000	\$843,150	\$885,308	\$929,573	\$976,052	\$1,024,854
300150 · Employee Expense (Operator)	5%	12,800	13,440	14,112	14,818	15,558	16,336
300200 · Employee Salaries (Laboratory)	5%	107,000	112,350	117,968	123,866	130,059	136,562
300249 · Employee Expense (Lab)	5%	2,090	2,195	2,304	2,419	2,540	2,667
300300 · Safety	5%	12,300	12,915	13,561	14,239	14,951	15,698
300400 · Well Supply	5%	1,100	1,155	1,213	1,273	1,337	1,404
300500 · Water Pump Station	5%	4,000	4,200	4,410	4,631	4,862	5,105
300700 · Headworks	5%	123,200	129,360	135,828	142,619	149,750	157,238
302000 · Grit Removal	5%	3,500	3,675	3,859	4,052	4,254	4,467
302200 · Ferric Chloride	5%	112,000	117,600	123,480	129,654	136,137	142,944
302400 · Polymer	5%	139,285	146,249	153,562	161,240	169,302	177,767
302700 · Primary Clarifier	5%	11,950	12,548	13,175	13,834	14,525	15,252
302900 · Recirculation Station	5%	2,950	3,098	3,252	3,415	3,586	3,765
303080 · Trickling Filter	5%	25	26	28	29	30	32
303100 · Secondary Clarifier	5%	7,100	7,455	7,828	8,219	8,630	9,062
303300 · Effluent Splitter Box	5%	150	158	165	174	182	191
303400 · Effluent Storage Pond #1	5%	3,800	3,990	4,190	4,399	4,619	4,850
303800 · Effluent Storage Pond #3	5%	14,000	14,700	15,435	16,207	17,017	17,868
304200 · Primary Digester	5%	23,450	24,623	25,854	27,146	28,504	29,929
304400 · Secondary Digester	5%	110,050	115,553	121,330	127,397	133,766	140,455
304600 · Boiler	5%	3,650	3,833	4,024	4,225	4,437	4,658
305000 · Sludge Conveyance	5%	28,800	30,240	31,752	33,340	35,007	36,757
305200 · Gas Conveyance	5%	54,550	57,278	60,141	63,148	66,306	69,621
305400 · Sludge Dewatering	5%	120,400	126,420	132,741	139,378	146,347	153,664
305600 · Sludge Drying Beds	5%	5,500	5,775	6,064	6,367	6,685	7,020
305700 · Monitoring Well	5%	6,200	6,510	6,836	7,177	7,536	7,913
305800 · Laboratory	5%	30,350	31,868	33,461	35,134	36,891	38,735
306000 · Office Building	5%	701,475	736,549	773,376	812,045	852,647	895,280
306200 · Shop/Grounds	5%	25,300	26,565	27,893	29,288	30,752	32,290
306300 · Generator	5%	8,400	8,820	9,261	9,724	10,210	10,721
307000 · Vehicles	5%	24,610	25,841	27,133	28,489	29,914	31,409
308000 · Legal (WWTP)	5%	5,000	5,250	5,513	5,788	6,078	6,381
309000 · NMP	5%	19,500	20,475	21,499	22,574	23,702	24,887
<b>Total 300000 · WWTP</b>		<b>\$2,527,485</b>	<b>\$2,653,859</b>	<b>\$2,786,552</b>	<b>\$2,925,880</b>	<b>\$3,072,174</b>	<b>\$3,225,783</b>

Table 4 (Continued)  
 NORSD  
 Expenses - Sewer

Operating Expenses	Escalator	Exp. Cat.	Budget Projection ->				
			Escalator	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
<b>350000 · Pretreatment</b>							
350100 · Employee Salaries(Pretreatment)	5%	\$195,800	\$205,590	\$215,870	\$226,663	\$237,996	\$249,896
350150 · Employee Expense (Pretreatment)	5%	5,950	6,248	6,560	6,888	7,232	7,594
350200 · Safety (Pre-Treatment )	5%	600	630	662	695	729	766
350300 · EQUIPMENT (PRETREATMENT)	5%	9,150	9,608	10,088	10,592	11,122	11,678
350400 · SAMPLING/TESTING	5%	6,750	7,088	7,442	7,814	8,205	8,615
350451 · SAMPLING/TESTING SHAFTER	5%	3,500	3,675	3,859	4,052	4,254	4,467
350700 · Office Supplies(Pre-Treatment)	5%	8,900	9,345	9,812	10,303	10,818	11,359
350800 · Computer-(Pre-Treatment)	5%	5,381	5,650	5,933	6,229	6,541	6,868
350900 · Engineering(Pre-Treatment)	5%	25,000	26,250	27,563	28,941	30,388	31,907
351000 · LEGAL-(Pretreatment)	5%	5,000	5,250	5,513	5,788	6,078	6,381
352000 · Motor Vehicles	5%	5,600	5,880	6,174	6,483	6,807	7,147
<b>Total 350000 · Pretreatment</b>		<b>\$271,631</b>	<b>\$285,213</b>	<b>\$299,473</b>	<b>\$314,447</b>	<b>\$330,169</b>	<b>\$346,678</b>
<b>400000 · Administration</b>							
410100 · Employee Salaries (Admin)	5%	\$700,400	\$735,420	\$772,191	\$810,801	\$851,341	\$893,908
410145 · Employee Expense (Admin)	5%	29,400	30,870	32,414	34,034	35,736	37,523
410500 · Board of Directors	5%	20,000	21,000	22,050	23,153	24,310	25,526
410600 · Insurance	5%	286,000	300,300	315,315	331,081	347,635	365,017
410700 · County of Kern	5%	300	315	331	347	365	383
410800 · LAFCO	5%	5,500	5,775	6,064	6,367	6,685	7,020
410900 · Financial	5%	30,060	31,563	33,141	34,798	36,538	38,365
411000 · Legal Counsel	5%	50,000	52,500	55,125	57,881	60,775	63,814
411100 · Membership	5%	23,000	24,150	25,358	26,625	27,957	29,354
411300 · Safety	5%	800	840	882	926	972	1,021
411400 · Drug Testing	5%	1,550	1,628	1,709	1,794	1,884	1,978
411500 · Refunds	5%	5,000	5,250	5,513	5,788	6,078	6,381
411700 · IT	5%	27,800	29,190	30,650	32,182	33,791	35,481
411800 · Building	5%	73,900	77,595	81,475	85,548	89,826	94,317
412000 · Vehicles	5%	6,300	6,615	6,946	7,293	7,658	8,041
412200 · Retired Employees	5%	3,300	3,465	3,638	3,820	4,011	4,212
<b>Total 400000 · Administration</b>		<b>\$1,263,310</b>	<b>\$1,326,476</b>	<b>\$1,392,799</b>	<b>\$1,462,439</b>	<b>\$1,535,561</b>	<b>\$1,612,339</b>
<b>450000 · Safety Enforcement</b>							
450100 · Employee Salaries (Safety)	5%	\$43,240	\$45,402	\$47,672	\$50,056	\$52,558	\$55,186
450150 · Employee Expense (Safety)	5%	300	315	331	347	365	383
451100 · Membership (Safety Enforcement)	5%	4,200	4,410	4,631	4,862	5,105	5,360
<b>Total 450000 · Safety Enforcement</b>		<b>\$47,740</b>	<b>\$50,127</b>	<b>\$52,633</b>	<b>\$55,265</b>	<b>\$58,028</b>	<b>\$60,930</b>
<b>500000 · Engineering</b>							
510000 · WWTP Engineering	5%	\$146,000	\$153,300	\$160,965	\$169,013	\$177,464	\$186,337
550000 · Collections	5%	250,000	262,500	275,625	289,406	303,877	319,070
570000 · Admin	5%	300,000	315,000	330,750	347,288	364,652	382,884
<b>Total 500000 · Engineering</b>		<b>\$696,000</b>	<b>\$730,800</b>	<b>\$767,340</b>	<b>\$805,707</b>	<b>\$845,992</b>	<b>\$888,292</b>

### **Capital Improvement Program**

**Table 5** shows the District's total capital program. Projects are primarily associated with the collection system between FY 2022/23 to FY 2026/27 and range between \$2.9 MM to \$5.3 MM per year, with the 12 MGD WWTP expansion project costs beginning in FY 2027/28. BWA projects the WWTP upgrade and expansion costs will range from \$37.86 MM to \$48.3 MM per year during the projection period.

Table 5  
 NORSD  
 Wastewater CIP Program

<b>CAPITAL PROJECTS</b>	<b><u>FY 2022/23</u></b>	<b><u>FY 2023/24</u></b>	<b><u>FY 2024/25</u></b>	<b><u>FY 2025/26</u></b>	<b><u>FY 2026/27</u></b>	<b><u>FY 2027/28</u></b>
<u>2022 Sewer Master Plan</u>						
Pipe Upsize on Lincoln Ave. & Oildale	\$ -	\$ -	\$ 185,004	\$ 196,105	\$ 207,871	\$ -
Pipe Extension along Kratzmeyer Rd. and Snow Rd.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pipe Upsize	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Site Improvements, LS 1	\$ -	\$ -	\$ 219,941	\$ 233,137	\$ 247,126	\$ -
Site Improvements, LS 2	\$ -	\$ -	\$ -	\$ -	\$ 222,145	\$ 233,253
Site Improvements, LS 3	\$ -	\$ -	\$ 119,896	\$ 127,089	\$ 134,715	\$ -
Site Improvements, LS 5	\$ -	\$ -	\$ -	\$ -	\$ 159,249	\$ 167,211
LS 1 Force Main, Rehabilitate	\$ -	\$ 202,248	\$ 214,383	\$ 227,246	\$ 240,881	\$ 252,925
LS 1 Force Main, Replacements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LS 2 Force Main, Replacements	\$ -	\$ -	\$ -	\$ 180,534	\$ 191,366	\$ 200,935
LS 3 Force Main, Redundancies	\$ -	\$ -	\$ -	\$ 216,641	\$ 229,640	\$ 241,121
LS 3 Force Main, Replacements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LS 4 Force Main Relacte lift station	\$ -	\$ 146,443	\$ 155,229	\$ 164,543	\$ -	\$ -
LS 5 Force Main (Blank Cost)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Remove and Replace Grade 5 PACP Pipes, Part 1	\$ 917,960	\$ 973,038	\$ 1,031,420	\$ 1,093,305	\$ 1,158,903	\$ -
Remove and Replace Grade 5 PACP Pipes, Part 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,216,849
Remove and Replace Grade 5 PACP Pipes, Part 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Spot Repair Grade 5 PACP Pipes, Part 1	\$ 1,676,496	\$ 1,777,086	\$ 1,883,711	\$ 1,996,734	\$ 2,116,538	\$ -
Spot Repair Grade 5 PACP Pipes, Part 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,222,364
Spot Repair Grade 5 PACP Pipes, Part 3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rehabilitate Manholes along Outfall Sewer, Part 1	\$ 318,000	\$ 337,080	\$ 357,305	\$ 378,743	\$ 401,468	\$ -
Rehabilitate Manholes along Outfall Sewer, Part 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 421,541
Two Permanent Installations, Part 1	\$ -	\$ -	\$ 12,704	\$ 13,466	\$ 14,274	\$ -
Two Permanent Installations, Part 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,405
WWTP Expansion, 12 MGD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 37,859,159
<b>TOTAL Wastewater CAPITAL IMPROVEMENT</b>	<b>\$2,912,456</b>	<b>\$3,435,894</b>	<b>\$4,179,593</b>	<b>\$4,827,544</b>	<b>\$5,324,175</b>	<b>\$42,816,763</b>

Table 5 (Continued)  
 NORSD  
 Wastewater CIP Program

<b>CAPITAL PROJECTS</b>	<b><u>FY 2028/29</u></b>	<b><u>FY 2029/30</u></b>	<b><u>FY 2030/31</u></b>	<b><u>FY 2031/32</u></b>	<b><u>FY 2032/33</u></b>
<u>2022 Sewer Master Plan</u>					
Pipe Upsize on Lincoln Ave. & Oildale	\$ -	\$ -	\$ -	\$ -	\$ -
Pipe Extension along Kratzmeyer Rd. and Snow Rd.	\$ -	\$ -	\$ -	\$ -	\$ 10,615,020
Pipe Upsize	\$ -	\$ -	\$ -	\$ -	\$ 2,993,640
Site Improvements, LS 1	\$ -	\$ -	\$ -	\$ -	\$ -
Site Improvements, LS 2	\$ 244,915	\$ -	\$ -	\$ -	\$ -
Site Improvements, LS 3	\$ -	\$ -	\$ -	\$ -	\$ -
Site Improvements, LS 5	\$ 175,572	\$ -	\$ -	\$ -	\$ -
LS 1 Force Main, Rehabilitate	\$ -	\$ -	\$ -	\$ -	\$ -
LS 1 Force Main, Replacements	\$ -	\$ -	\$ -	\$ -	\$ -
LS 2 Force Main, Replacements	\$ -	\$ -	\$ -	\$ -	\$ -
LS 3 Force Main, Redundancies	\$ 253,178	\$ 265,836	\$ -	\$ -	\$ -
LS 3 Force Main, Replacements	\$ -	\$ -	\$ -	\$ -	\$ -
LS 4 Force Main Relacte lift station	\$ -	\$ -	\$ -	\$ -	\$ -
LS 5 Force Main (Blank Cost)	\$ -	\$ -	\$ -	\$ -	\$ -
Remove and Replace Grade 5 PACP Pipes, Part 1	\$ -	\$ -	\$ -	\$ -	\$ -
Remove and Replace Grade 5 PACP Pipes, Part 2	\$ 1,277,691	\$ 1,341,575	\$ 1,408,654	\$ 1,479,087	\$ -
Remove and Replace Grade 5 PACP Pipes, Part 3	\$ -	\$ -	\$ -	\$ -	\$ 1,434,680
Spot Repair Grade 5 PACP Pipes, Part 1	\$ -	\$ -	\$ -	\$ -	\$ -
Spot Repair Grade 5 PACP Pipes, Part 2	\$ 2,333,483	\$ 2,450,157	\$ 2,572,665	\$ 2,701,298	\$ -
Spot Repair Grade 5 PACP Pipes, Part 3	\$ -	\$ -	\$ -	\$ -	\$ 1,434,680
Rehabilitate Manholes along Outfall Sewer, Part 1	\$ -	\$ -	\$ -	\$ -	\$ -
Rehabilitate Manholes along Outfall Sewer, Part 2	\$ 442,618	\$ 464,749	\$ 487,986	\$ 512,386	\$ -
Two Permanent Installations, Part 1	\$ -	\$ -	\$ -	\$ -	\$ -
Two Permanent Installations, Part 2	\$ 1,475	\$ 1,549	\$ -	\$ -	\$ -
WWTP Expansion, 12 MGD	\$ 39,752,117	\$ 41,739,723	\$ 43,826,709	\$ 46,018,044	\$ 48,318,947
<b>TOTAL Wastewater CAPITAL IMPROVEMENT</b>	<b>\$44,481,049</b>	<b>\$46,263,590</b>	<b>\$48,296,014</b>	<b>\$50,710,815</b>	<b>\$64,796,966</b>

## Financial Projections

**Table 6** shows the 10 -year wastewater enterprise cash flow projection. BWA projects 5% annual sewer service charge increases will be required from FY 2023/24 to FY 2027/28. 5% annual sewer service charge increases are projected for the following 5 years (FY 2028/29 to FY 2032/33), however BWA recommends the District initiate a 5-year rate study in FY 2027/28 as updated cost estimates become available.

### Cash Flow Assumptions:

1. 2% annual customer growth (based on population growth forecasts from the 2022 Sanitary Sewer Master Plan *Table 2-2. District Population Forecast*).
2. 2% interest earnings on fund reserves.
3. WWTP project costs will be 100% financed through long term debt (4% interest, 30 years, 1.5% transaction fees.)
  - a. \$119.35 MM debt issue in FY 2027/28 for 3 years of WWTP capital
  - b. \$138.16 MM debt issue in FY 2030/31 for 3 years of WWTP capital
4. The City of Shafter will pay 25.93% of WWTP debt service costs.
5. 5% annual increases in District operations and maintenance expenditures.
6. Capacity fee funds and revenue will be allocated toward expansion related capital costs.

**Table 6A** is a subset of **Table 6** and shows projected the 10-year wastewater financial plan for existing customers. The capital improvement costs include only the upgrade related projects and exclude the capacity fee revenue and capacity fee fund balance.

**Table 6B** shows projected the 10-year wastewater financial plan for future customers. The capital improvement projects are for expansion only, and the cash flow demonstrates that growth is paying its share based on capacity fee revenues and fund balance.

Table 6  
 NORSD  
 Wastewater Combined Enterprise Cash Flow Projection

	Current	5- Year Projection					Extended Projection				
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
<b>Beginning Fund Balance</b>	<b>\$61,744,196</b>	<b>\$65,345,803</b>	<b>\$69,648,313</b>	<b>\$73,658,277</b>	<b>\$77,494,978</b>	<b>\$81,337,827</b>	<b>\$164,981,004</b>	<b>\$128,573,322</b>	<b>\$90,260,744</b>	<b>\$184,961,608</b>	<b>\$138,675,790</b>
<b>% Rate Revenue Increase</b>		<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>
<i>Growth - %</i>		<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>	<i>2.0%</i>
<i>\$/SFRE</i>	<i>\$30.77</i>	<i>\$32.31</i>	<i>\$33.92</i>	<i>\$35.62</i>	<i>\$37.40</i>	<i>\$39.27</i>	<i>\$41.23</i>	<i>\$43.30</i>	<i>\$45.46</i>	<i>\$47.73</i>	<i>\$50.12</i>
<b>REVENUES</b>											
<b>Operating Revenue</b>											
Sewer Service Charges	\$8,286,821	\$8,875,000	\$9,505,000	\$10,180,000	\$10,903,000	\$11,677,000	\$12,506,000	\$13,394,000	\$14,345,000	\$15,363,000	\$16,454,000
Capacity Fees	3,872,503	3,949,953	4,028,952	4,109,531	4,191,722	4,275,556	4,361,067	4,448,288	4,537,254	4,627,999	4,720,559
Shafter Payment (JPA Bond)	75,000	0	0	0	0	0	0	0	0	0	0
Shafter Pmt (PipeLine Capacity)	70,096	70,096	70,096	70,096	70,096	70,096	70,096	70,096	70,096	70,096	70,096
Shafter Payment (WWTP O&M)	420,000	441,000	463,050	486,203	510,513	536,038	562,840	590,982	620,531	651,558	684,136
Shafter Capital Imp Project (25.93% o	362,963	381,111	400,167	420,175	441,184	1,371,378	1,816,270	1,816,270	2,867,549	3,918,829	3,918,829
Shafter Ind. Pre Reimbursement	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000
Misc. Other Income	369,360	369,360	369,360	369,360	369,360	369,360	369,360	369,360	369,360	369,360	369,360
<b>Total Operating Revenues</b>	<b>\$13,501,743</b>	<b>\$14,131,520</b>	<b>\$14,881,625</b>	<b>\$15,680,364</b>	<b>\$16,530,874</b>	<b>\$18,344,428</b>	<b>\$19,730,633</b>	<b>\$20,733,996</b>	<b>\$22,854,791</b>	<b>\$25,045,842</b>	<b>\$26,261,980</b>
<b>Non Operating Revenue</b>											
<b>Proposed Debt (4%, 30 Yr, 1.5% F</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$119,350,999</b>	<b>\$0</b>	<b>\$0</b>	<b>\$138,163,700</b>	<b>\$0</b>	<b>\$0</b>
<u>Interest Earned (est. 2%)</u>	<u>1,234,884</u>	<u>1,306,916</u>	<u>1,392,966</u>	<u>1,473,166</u>	<u>1,549,900</u>	<u>1,626,757</u>	<u>3,299,620</u>	<u>2,571,466</u>	<u>1,805,215</u>	<u>3,699,232</u>	<u>2,773,516</u>
<b>Subtotal Operating Revenues</b>	<b>\$1,234,884</b>	<b>\$1,306,916</b>	<b>\$1,392,966</b>	<b>\$1,473,166</b>	<b>\$1,549,900</b>	<b>\$120,977,756</b>	<b>\$3,299,620</b>	<b>\$2,571,466</b>	<b>\$139,968,915</b>	<b>\$3,699,232</b>	<b>\$2,773,516</b>
<b>Total Revenues</b>	<b>\$14,736,627</b>	<b>\$15,438,436</b>	<b>\$16,274,591</b>	<b>\$17,153,530</b>	<b>\$18,080,773</b>	<b>\$139,322,183</b>	<b>\$23,030,253</b>	<b>\$23,305,463</b>	<b>\$162,823,706</b>	<b>\$28,745,074</b>	<b>\$29,035,495</b>
<b>EXPENSES</b>											
<b>Operating Expenses</b>											
Collections	\$1,127,198	\$1,183,558	\$1,242,736	\$1,304,873	\$1,370,116	\$1,438,622	\$1,510,553	\$1,586,081	\$1,665,385	\$1,748,654	\$1,836,087
WWTP	2,527,485	2,653,859	2,786,552	2,925,880	3,072,174	3,225,783	3,387,072	3,556,425	3,734,246	3,920,959	4,117,007
Pretreatment	271,631	285,213	299,473	314,447	330,169	346,678	364,012	382,212	401,323	421,389	442,458
Administration	1,263,310	1,326,476	1,392,799	1,462,439	1,535,561	1,612,339	1,692,956	1,777,604	1,866,484	1,959,808	2,057,799
Safety Enforcement	47,740	50,127	52,633	55,265	58,028	60,930	63,976	67,175	70,534	74,060	77,763
Engineering	696,000	730,800	767,340	805,707	845,992	888,292	932,707	979,342	1,028,309	1,079,724	1,133,711
<b>Total Operating Expenses</b>	<b>\$5,933,364</b>	<b>\$6,230,032</b>	<b>\$6,541,534</b>	<b>\$6,868,611</b>	<b>\$7,212,041</b>	<b>\$7,572,643</b>	<b>\$7,951,275</b>	<b>\$8,348,839</b>	<b>\$8,766,281</b>	<b>\$9,204,595</b>	<b>\$9,664,825</b>
<b>Net Revenues</b>	<b>\$8,803,263</b>	<b>\$9,208,404</b>	<b>\$9,733,057</b>	<b>\$10,284,919</b>	<b>\$10,868,732</b>	<b>\$131,749,540</b>	<b>\$15,078,978</b>	<b>\$14,956,624</b>	<b>\$154,057,425</b>	<b>\$19,540,479</b>	<b>\$19,370,671</b>
<b>Non Operating Expenses</b>											
JPA Bonds	\$889,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Proposed Debt (4%, 30 Yr, 1.5% F</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,502,806</b>	<b>7,005,611</b>	<b>7,005,611</b>	<b>11,060,547</b>	<b>15,115,482</b>	<b>15,115,482</b>
WWTP CIP	0	0	0	0	0	37,859,159	39,752,117	41,739,723	43,826,709	46,018,044	48,318,947
WWTP Engineering	1,400,000	1,470,000	1,543,500	1,620,675	1,701,709	1,786,794	0	0	0	0	0
<u>Collection System CIP</u>	<u>2,912,456</u>	<u>3,435,894</u>	<u>4,179,593</u>	<u>4,827,544</u>	<u>5,324,175</u>	<u>4,957,604</u>	<u>4,728,932</u>	<u>4,523,867</u>	<u>4,469,305</u>	<u>4,692,771</u>	<u>16,478,020</u>
<b>Total Non Operating Expenses</b>	<b>\$5,201,656</b>	<b>\$4,905,894</b>	<b>\$5,723,093</b>	<b>\$6,448,219</b>	<b>\$7,025,884</b>	<b>\$48,106,363</b>	<b>\$51,486,660</b>	<b>\$53,269,201</b>	<b>\$59,356,561</b>	<b>\$65,826,297</b>	<b>\$79,912,448</b>
<b>Net Income</b>	<b>\$3,601,607</b>	<b>\$4,302,510</b>	<b>\$4,009,964</b>	<b>\$3,836,701</b>	<b>\$3,842,849</b>	<b>\$83,643,178</b>	<b>-\$36,407,683</b>	<b>-\$38,312,577</b>	<b>\$94,700,864</b>	<b>-\$46,285,818</b>	<b>-\$60,541,778</b>
<b>Ending Fund Balance</b>	<b>\$65,345,803</b>	<b>\$69,648,313</b>	<b>\$73,658,277</b>	<b>\$77,494,978</b>	<b>\$81,337,827</b>	<b>\$164,981,004</b>	<b>\$128,573,322</b>	<b>\$90,260,744</b>	<b>\$184,961,608</b>	<b>\$138,675,790</b>	<b>\$78,134,012</b>
<b>Debt Service Coverage (Min 1.25x)</b>	<b>9.90</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>3.54</b>	<b>2.15</b>	<b>2.13</b>	<b>1.44</b>	<b>1.29</b>	<b>1.28</b>



Table 6A  
 NORSD  
 Wastewater Unrestricted Cash Flow Projection

	Current	5- Year Projection					Extended Projection				
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
<b>Beginning Unrestricted Fund Balance*</b>	<b>\$21,713,216</b>	<b>\$21,367,627</b>	<b>\$21,602,842</b>	<b>\$21,423,279</b>	<b>\$20,946,099</b>	<b>\$20,348,616</b>	<b>\$46,911,315</b>	<b>\$33,915,123</b>	<b>\$20,720,114</b>	<b>\$52,336,682</b>	<b>\$37,286,719</b>
<b>% Rate Revenue Increase</b>		<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>	<b>5.00%</b>
<i>Growth - %</i>		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
<i>\$/SFRE</i>	\$30.77	\$32.31	\$33.92	\$35.62	\$37.40	\$39.27	\$41.23	\$43.30	\$45.46	\$47.73	\$50.12
<b>REVENUES</b>											
<b>Operating Revenue</b>											
Sewer Service Charges	\$8,286,821	\$8,875,000	\$9,505,000	\$10,180,000	\$10,903,000	\$11,677,000	\$12,506,000	\$13,394,000	\$14,345,000	\$15,363,000	\$16,454,000
Shafter Payment (JPA Bond)	75,000	0	0	0	0	0	0	0	0	0	0
Shafter Pmt (PipeLine Capacity)	70,096	70,096	70,096	70,096	70,096	70,096	70,096	70,096	70,096	70,096	70,096
Shafter Payment (WWTP O&M)	420,000	441,000	463,050	486,203	510,513	536,038	562,840	590,982	620,531	651,558	684,136
Shafter Capital Imp Project (33% of Upgrade)	155,556	163,333	171,500	180,075	189,079	587,733	778,401	778,401	1,228,950	1,679,498	1,679,498
Shafter Ind. Pre Reimbursement	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000
Misc. Other Income	369,360	369,360	369,360	369,360	369,360	369,360	369,360	369,360	369,360	369,360	369,360
<b>Total Operating Revenues</b>	<b>\$9,421,833</b>	<b>\$9,963,789</b>	<b>\$10,624,006</b>	<b>\$11,330,734</b>	<b>\$12,087,047</b>	<b>\$13,285,228</b>	<b>\$14,331,697</b>	<b>\$15,247,839</b>	<b>\$16,678,937</b>	<b>\$18,178,512</b>	<b>\$19,302,090</b>
<b>Non Operating Revenue</b>											
<b>Proposed WWTP Debt (4%, 30 Yr, 1.5% Fees)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$39,783,666</b>	<b>\$0</b>	<b>\$0</b>	<b>\$46,054,567</b>	<b>\$0</b>	<b>\$0</b>
Interest Earned (est. 2%)	434,264	427,353	432,057	428,466	418,922	406,972	938,226	678,302	414,402	1,046,734	745,734
<b>Subtotal Operating Revenues</b>	<b>\$434,264</b>	<b>\$427,353</b>	<b>\$432,057</b>	<b>\$428,466</b>	<b>\$418,922</b>	<b>\$40,190,639</b>	<b>\$938,226</b>	<b>\$678,302</b>	<b>\$46,468,969</b>	<b>\$1,046,734</b>	<b>\$745,734</b>
<b>Total Revenues</b>	<b>\$9,856,097</b>	<b>\$10,391,142</b>	<b>\$11,056,063</b>	<b>\$11,759,199</b>	<b>\$12,505,969</b>	<b>\$53,475,866</b>	<b>\$15,269,924</b>	<b>\$15,926,142</b>	<b>\$63,147,906</b>	<b>\$19,225,245</b>	<b>\$20,047,824</b>
<b>EXPENSES</b>											
<b>Operating Expenses</b>											
Collections	\$1,127,198	\$1,183,558	\$1,242,736	\$1,304,873	\$1,370,116	\$1,438,622	\$1,510,553	\$1,586,081	\$1,665,385	\$1,748,654	\$1,836,087
WWTP	2,527,485	2,653,859	2,786,552	2,925,880	3,072,174	3,225,783	3,387,072	3,556,425	3,734,246	3,920,959	4,117,007
Pretreatment	271,631	285,213	299,473	314,447	330,169	346,678	364,012	382,212	401,323	421,389	442,458
Administration	1,263,310	1,326,476	1,392,799	1,462,439	1,535,561	1,612,339	1,692,956	1,777,604	1,866,484	1,959,808	2,057,799
Safety Enforcement	47,740	50,127	52,633	55,265	58,028	60,930	63,976	67,175	70,534	74,060	77,763
<u>Engineering</u>	<u>696,000</u>	<u>730,800</u>	<u>767,340</u>	<u>805,707</u>	<u>845,992</u>	<u>888,292</u>	<u>932,707</u>	<u>979,342</u>	<u>1,028,309</u>	<u>1,079,724</u>	<u>1,133,711</u>
<b>Total Operating Expenses</b>	<b>\$5,933,364</b>	<b>\$6,230,032</b>	<b>\$6,541,534</b>	<b>\$6,868,611</b>	<b>\$7,212,041</b>	<b>\$7,572,643</b>	<b>\$7,951,275</b>	<b>\$8,348,839</b>	<b>\$8,766,281</b>	<b>\$9,204,595</b>	<b>\$9,664,825</b>
Net Revenues	\$3,922,733	\$4,161,110	\$4,514,529	\$4,890,589	\$5,293,928	\$45,903,223	\$7,318,649	\$7,577,303	\$54,381,625	\$10,020,651	\$10,382,999
<b>Non Operating Expenses</b>											
JPA Bonds	\$889,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Proposed WWTP Debt (4%, 30 Yr, 1.5% Fees)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,167,602</b>	<b>2,335,204</b>	<b>2,335,204</b>	<b>3,686,849</b>	<b>5,038,494</b>	<b>5,038,494</b>
WWTP CIP (33% for Upgrade Only)	0	0	0	0	0	12,619,720	13,250,706	13,913,241	14,608,903	15,339,348	16,106,316
WWTP Engineering (33% for Upgrade Only)	466,667	490,000	514,500	540,225	567,236	595,598	0	0	0	0	0
<u>Collection System CIP</u>	<u>2,912,456</u>	<u>3,435,894</u>	<u>4,179,593</u>	<u>4,827,544</u>	<u>5,324,175</u>	<u>4,957,604</u>	<u>4,728,932</u>	<u>4,523,867</u>	<u>4,469,305</u>	<u>4,692,771</u>	<u>2,869,360</u>
<b>Total Non Operating Expenses</b>	<b>\$4,268,323</b>	<b>\$3,925,894</b>	<b>\$4,694,093</b>	<b>\$5,367,769</b>	<b>\$5,891,411</b>	<b>\$19,340,523</b>	<b>\$20,314,841</b>	<b>\$20,772,312</b>	<b>\$22,765,057</b>	<b>\$25,070,613</b>	<b>\$24,014,170</b>
Net Income	-\$345,589	\$235,216	-\$179,564	-\$477,180	-\$597,483	\$26,562,700	-\$12,996,193	-\$13,195,009	\$31,616,568	-\$15,049,962	-\$13,631,171
<b>Ending Unrestricted Fund Balance*</b>	<b>\$21,367,627</b>	<b>\$21,602,842</b>	<b>\$21,423,279</b>	<b>\$20,946,099</b>	<b>\$20,348,616</b>	<b>\$46,911,315</b>	<b>\$33,915,123</b>	<b>\$20,720,114</b>	<b>\$52,336,682</b>	<b>\$37,286,719</b>	<b>\$23,655,549</b>

\*Includes: Capital Replacement Reserve Fund, Capital Improvement Reserve Fund, O&M Reserve Fund, Rate Stabilization Reserve Fund, & Unallocated Balance

Table 6B  
 NORSD  
 Wastewater Capacity Fund Cash Flow Projection

	Current	5- Year Projection					Extended Projection				
	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32	FY 2032/33
<b>Beginning Capacity Fund Balance</b>	<b>\$40,030,980</b>	<b>\$43,978,176</b>	<b>\$48,045,471</b>	<b>\$52,234,999</b>	<b>\$56,548,879</b>	<b>\$60,989,211</b>	<b>\$118,069,689</b>	<b>\$94,658,199</b>	<b>\$69,540,631</b>	<b>\$132,624,927</b>	<b>\$101,389,071</b>
<i>Growth - %</i>		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
<i>Projected NewSFRE</i>	440	449	458	467	476	486	496	505	516	526	536
<b>REVENUES</b>											
<b>Operating Revenue</b>											
Capacity Fees	\$3,872,503	\$3,949,953	\$4,028,952	\$4,109,531	\$4,191,722	\$4,275,556	\$4,361,067	\$4,448,288	\$4,537,254	\$4,627,999	\$4,720,559
Shafter Capital Imp Project (22.2% of Expansion)	207,407	217,778	228,667	240,100	252,105	263,644	1,037,868	1,037,868	1,638,600	2,239,331	2,239,331
<b>Total Operating Revenues</b>	<b>\$4,079,910</b>	<b>\$4,167,731</b>	<b>\$4,257,619</b>	<b>\$4,349,631</b>	<b>\$4,443,827</b>	<b>\$5,059,200</b>	<b>\$5,398,935</b>	<b>\$5,486,157</b>	<b>\$6,175,854</b>	<b>\$6,867,330</b>	<b>\$6,959,890</b>
<b>Non Operating Revenue</b>											
<b>Proposed WWTP Debt (4%, 30 Yr, 1.5% Fees)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$79,567,333</b>	<b>\$0</b>	<b>\$0</b>	<b>\$92,109,133</b>	<b>\$0</b>	<b>\$0</b>
Interest Earned (est. 2%)	800,620	879,564	960,909	1,044,700	1,130,978	1,219,784	2,361,394	1,893,164	1,390,813	2,652,499	2,027,781
<b>Subtotal Operating Revenues</b>	<b>\$800,620</b>	<b>\$879,564</b>	<b>\$960,909</b>	<b>\$1,044,700</b>	<b>\$1,130,978</b>	<b>\$80,787,117</b>	<b>\$2,361,394</b>	<b>\$1,893,164</b>	<b>\$93,499,946</b>	<b>\$2,652,499</b>	<b>\$2,027,781</b>
<b>Total Revenues</b>	<b>\$4,880,530</b>	<b>\$5,047,294</b>	<b>\$5,218,528</b>	<b>\$5,394,331</b>	<b>\$5,574,804</b>	<b>\$85,846,317</b>	<b>\$7,760,329</b>	<b>\$7,379,321</b>	<b>\$99,675,800</b>	<b>\$9,519,828</b>	<b>\$8,987,671</b>
<b>EXPENSES</b>											
<b>Non Operating Expenses</b>											
<b>Proposed WWTP Debt (4%, 30 Yr, 1.5% Fees)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,335,204</b>	<b>\$4,670,408</b>	<b>\$4,670,408</b>	<b>\$7,373,698</b>	<b>\$10,076,988</b>	<b>\$10,076,988</b>
Collection System (100% Expansion)	0	0	0	0	0	0	0	0	0	0	13,608,659
WWTP Engineering (67% for Expansion)	933,333	980,000	1,029,000	1,080,450	1,134,473	1,191,196	0	0	0	0	0
WWTP CIP (67% for Expansion)	0	0	0	0	0	25,239,439	26,501,411	27,826,482	29,217,806	30,678,696	32,212,631
<b>Total Non Operating Expenses</b>	<b>\$933,333</b>	<b>\$980,000</b>	<b>\$1,029,000</b>	<b>\$1,080,450</b>	<b>\$1,134,473</b>	<b>\$28,765,839</b>	<b>\$31,171,819</b>	<b>\$32,496,889</b>	<b>\$36,591,504</b>	<b>\$40,755,684</b>	<b>\$55,898,278</b>
Net Income	\$3,947,196	\$4,067,294	\$4,189,528	\$4,313,881	\$4,440,332	\$57,080,478	-\$23,411,490	-\$25,117,569	\$63,084,296	-\$31,235,856	-\$46,910,607
<b>Ending Capacity Fund Balance</b>	<b>\$43,978,176</b>	<b>\$48,045,471</b>	<b>\$52,234,999</b>	<b>\$56,548,879</b>	<b>\$60,989,211</b>	<b>\$118,069,689</b>	<b>\$94,658,199</b>	<b>\$69,540,631</b>	<b>\$132,624,927</b>	<b>\$101,389,071</b>	<b>\$54,478,464</b>

## Sewer Capacity Fee

**Table 7** shows the calculation of the sewer capacity fee. The total estimated cost of the 12 MGD treatment plant upgrade and expansion in 2023 dollars is \$285.6 MM. The expansion portion amounts to 67% of WWTP projects or \$190.4 MM in 2023 dollars. The expansion will add an additional 4.5 MGD of capacity to the treatment plant. Dividing the expansion cost \$190.4 MM by the 4.5 MGD capacity yields a \$ per MGD of approximately \$42.3 MM.

Per the most recent engineering master plan (Sanitary Sewer Master Plan, December 2022), the typical SFRE uses 220 gallons per day (GPD) of capacity. Allocating the cost of \$42.3 MM to the 220 GPD of capacity used by the typical SFRE derives a capacity fee of \$9,308 per SFRE.

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Table 7  
NORS  
Capacity Fee Calculation

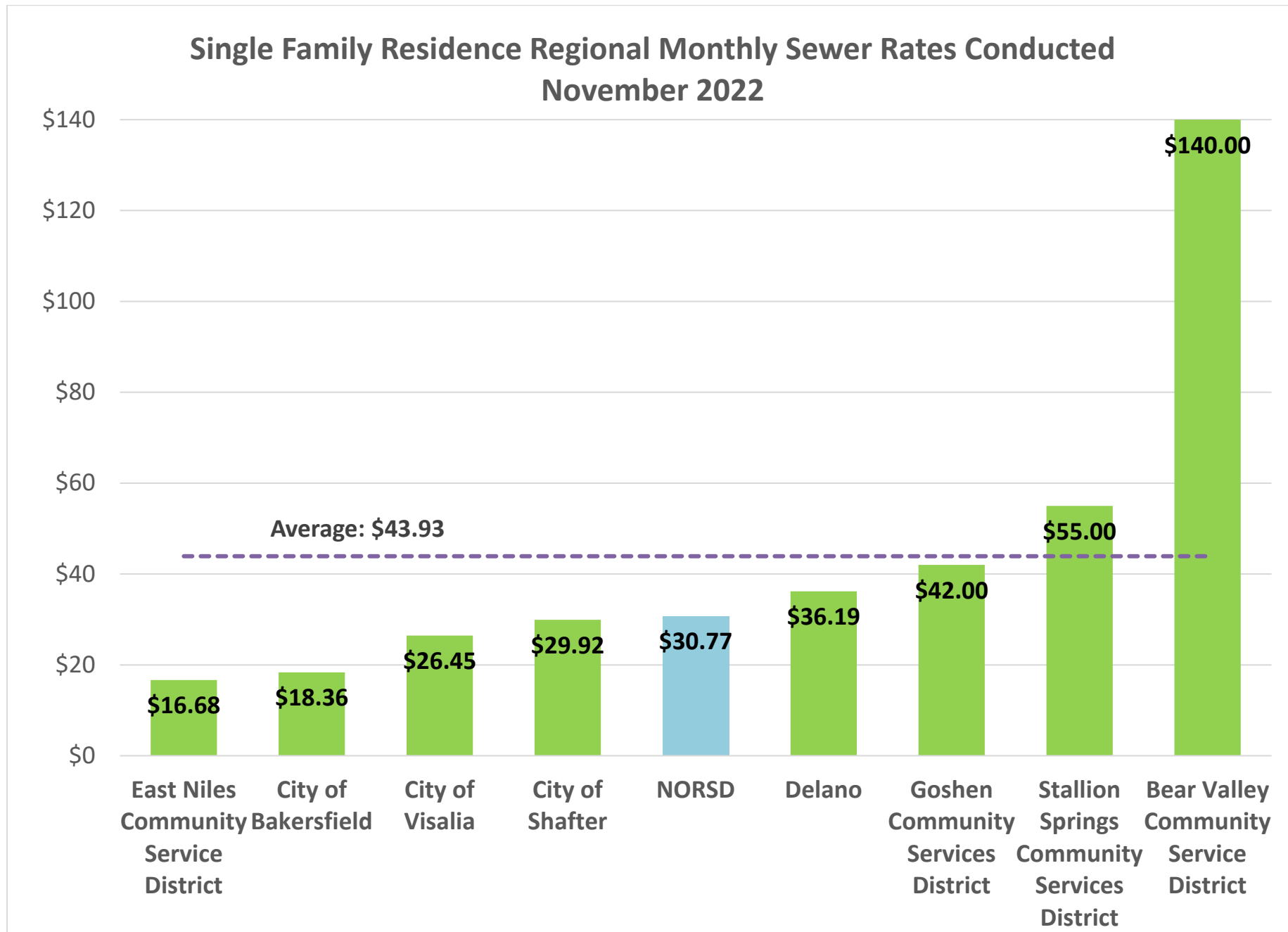
Category	Facility	FY 2028-2033	Cost Source (2023 Dollars)
WWTP Upgrade / Expansion	12 MGD Expansion	\$285,600,000	January 24th, 2023 Estimate
<b>TOTAL</b>		<b>\$285,600,000</b>	

<i>% Allocation to Expansion</i>	67%
<b>Present Value of Capital For Future Customers</b>	<b>\$190,400,000</b>
<b>Additional MGD</b>	<b>4.5</b>
<b>\$ per MGD</b>	<b>\$42,311,111</b>
<b>\$ per SFRE*</b>	<b>\$9,308</b>

*\*Based on 220 GPD per engineering master plan.*

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## Appendix A – Regional Sewer Rate Survey



## Appendix B – Regional Sewer Capacity Fee Survey

