

Sewer Service Charge and Capacity Fee Study City of Imperial Beach

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Abbreviations

ADU	Accessory Dwelling Unit
AWWA	American Water Works Association
BMP	Best Management Practices as Prescribed by the State of California
BOD	Biochemical Oxygen Demand – A Measure of Sewage Strength
Cal Am	California American Water Co
CIP	Capital Improvement Plan
EDU	Equivalent Dwelling Unit
ENR-CCI	Engineering News Record Construction Cost Index
EPA	U.S. Environmental Protection Agency
FYE	Fiscal Year Ending
GIS	Geographical Information System
HCF	Hundred Cubic Feet
Metro	City of San Diego Metropolitan Wastewater System
MFR	Multi-Family Residential Property
mg/l	Milligrams per Liter
O&M	Operations and Maintenance
PA	Participating Agency in the San Diego Metro System
SFR	Single Family Residential Property
TSS	Total Suspended Solids – A Measure of Sewage Strength

Executive Summary

ES.1 Introduction

NV5 was retained by the City of Imperial Beach (City) as their contract City engineer and to provide as needed services. One of the services that we were asked to perform was a comprehensive sewer user and capacity fee rate update study. We worked with the Keze Group who performed the City's last sewer rate study. A comprehensive rate study determines the adequacy of the existing rates and provides the basis for adjustments to maintain cost-based rates. This report describes the methodology, findings, and conclusions of the sewer user and capacity fee rate update study (rate study).

ES.2 Sewer Service Charge Update

The City completed its last rate study in 2016. Since that time, several factors have affected the City's adopted five-year rate case and the following changes have occurred:

- As with other communities in San Diego County and Southern California, the City's citizens and businesses have decreased their water usage significantly in response to the drought declaration by the state. Water use was down 22.4% year over year from Fiscal Year Ending (FYE) 2017 versus FYE2016 then water use. FYE2020's water use is still down 15.4% versus FYE2016. The 2016 rate study did not assume any reduction in water use during the rate period as a fairly large drop in water use had already occurred between 2013 & 2016. This has greatly decreased revenues from the adopted commodity rates.
- While water use is down, the amount of wastewater the City has to pay to be treated is still 40% more than water used. Wastewater flows have only reduced 2-4% since 2017. There is still significant infiltration occurring throughout the City's system.
- The adopted budget in 2016's goal was to replenish the City's reserves. While reserves have not dropped, they have not been significantly replenished. While water use was down substantially and thus revenue from customer usage was down, the reserves did not continue to drop because there were some significant developments within the City.
- There has been an increase in capital spending for required capital projects. The 2016 budget of \$600,000 for capital spending has been continually inflated at 3% per year and thus today the starting CIP budget is \$717,051 per year and will continue to be increased with 3% inflation assumed. This increased funding level is included in this rate update.
- The construction phase of the City of San Diego's Pure Water Program has begun, while the increases anticipated in the last rate study has not been quite as dramatic and occurring as soon as anticipated, additional Metro costs are projected over the next rate period. City of San Diego staff has identified the increased funding level for the participating agencies (PA) from \$80 million to \$90 million over the next five-years. This increased funding level is included in this rate update.

These changes in the revenue requirement of the City's sewer utility produce the following rates for the upcoming five-year period from FYE 2022 to FYE 2026:

Table ES-1 Comparison of Current versus Proposed Sewer User Rates

Classes of Users	FYE 2021 Rates		FYE 2022 Projected Rates		FYE 2023 Projected Rates	
	Base Charge (5/8" Water Meter)	Commodity Rate (\$ /HCF)	Base Charge (5/8" Water Meter)	Commodity Rate (\$ /HCF)	Base Charge (5/8" Water Meter)	Commodity Rate (\$ /HCF)
Single Family	\$232.41	\$5.80	\$239.38	\$5.97	\$246.46	\$6.15
Non-Residential (Includes Multi-Family)						
Rest/Bakeries/Mort./Groc.	\$232.41	\$12.17	\$239.38	\$12.54	\$246.46	\$12.91
Small Commercial	\$232.41	\$5.25	\$239.38	\$5.41	\$246.46	\$5.57
Car Wash/Laundries	\$232.41	\$5.05	\$239.38	\$5.20	\$246.46	\$5.36
Public Agency/Institutional	\$232.41	\$4.86	\$239.38	\$5.01	\$246.46	\$5.16
Heavy Commercial	\$232.41	\$7.97	\$239.38	\$8.21	\$246.46	\$8.46
Mixed Use Light	\$232.41	\$6.16	\$239.38	\$6.34	\$246.46	\$6.54
Mixed Use Heavy	\$232.41	\$7.29	\$239.38	\$7.51	\$246.46	\$7.72
Navy	\$232.41	\$6.80	\$239.38	\$7.00	\$246.46	\$7.21
Multi-Family	\$232.41	\$5.80	\$239.38	\$5.97	\$246.46	\$6.15

Table ES-2 Comparison of Current versus Proposed Sewer User Rates (Continued)

Classes of Users	FYE 2024 Projected Rates		FYE 2025 Projected Rates		FYE 2026 Projected Rates	
	Base Charge (5/8" Water Meter)	Commodity Rate (\$ /HCF)	Base Charge (5/8" Water Meter)	Commodity Rate (\$ /HCF)	Base Charge (5/8" Water Meter)	Commodity Rate (\$ /HCF)
Single Family	\$253.96	\$6.34	\$261.58	\$6.53	\$269.43	\$6.72
Non-Residential (Includes Multi-Family)						
Rest/Bakeries/Mort./Groc.	\$253.96	\$13.30	\$261.58	\$13.70	\$269.43	\$14.11
Small Commercial	\$253.96	\$5.74	\$261.58	\$5.91	\$269.43	\$6.09
Car Wash/Laundries	\$253.96	\$5.52	\$261.58	\$5.68	\$269.43	\$5.85
Public Agency/Institutional	\$253.96	\$5.31	\$261.58	\$5.47	\$269.43	\$5.63
Heavy Commercial	\$253.96	\$8.71	\$261.58	\$8.97	\$269.43	\$9.24
Mixed Use Light	\$253.96	\$6.73	\$261.58	\$6.93	\$269.43	\$7.14
Mixed Use Heavy	\$253.96	\$7.97	\$261.58	\$8.20	\$269.43	\$8.45
Navy	\$253.96	\$7.43	\$261.58	\$7.65	\$269.43	\$7.88
Multi-Family	\$253.96	\$6.34	\$261.58	\$6.53	\$269.43	\$6.72

ES.3 Capacity Fee Update

In 2016 the City's sewer capacity fees were updated to reflect the true value of its capital facilities, to assure that the fees were in accordance with current industry guidelines and practice, and to properly value the City's investment in the Metro System and to create a capacity fee per equivalent dwelling unit (EDU¹). The adopted capacity fee, including all cost factors, was set at \$5,373 per EDU.

The San Diego Consumer Price Index between 2016 and December of 2020 has risen 10.6%. It is recommended the City's Capacity Fee be increased from \$5,373 to \$5,943. It is also recommended the City include in their ordinance that the Capacity Fee be indexed to inflation and thus annual adjustments are made to keep the Capacity Fee current.

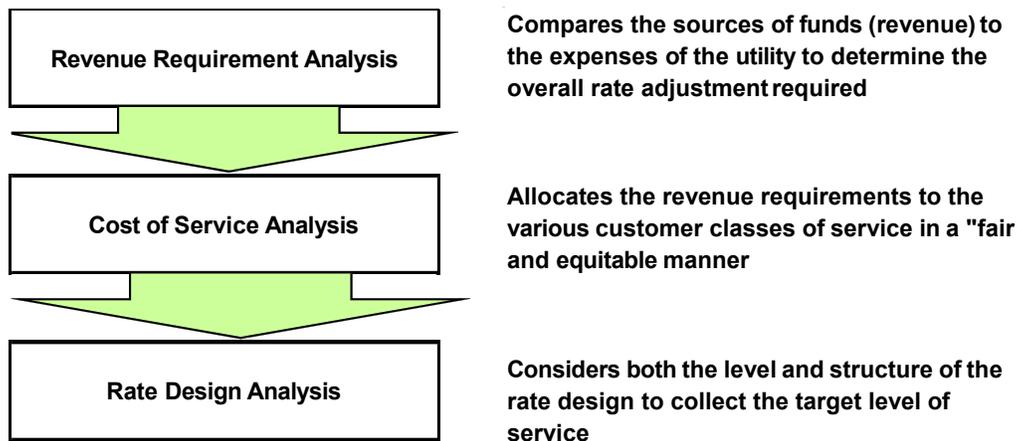
¹ One EDU is equivalent to the assumed gallons per day of a single-family residential user. Imperial Beach uses 232 gallons per day for a single-family residential user. All other users are assigned EDUs at the time they purchase a capacity fee in their proportional relationship to a single-family user.

Section 1 - Sewer User Rate Update

1.1 Overview of the Sewer Service Charge Update Process

A comprehensive rate study typically utilizes three interrelated analyses to address the adequacy and equity of the utility's rates. These three analyses are a revenue requirement analysis, a cost of service analysis, and a rate design analysis. The process is illustrated in Figure 1 -1.

Figure 1-1 Overview of the Comprehensive Rate Study Analysis



The City's sewer utility was evaluated on a "stand-alone" basis. That is, no subsidies between the utility or other City funds occur. By viewing the utility on a stand-alone basis, the need to adequately fund both operations and maintenance (O&M) and capital infrastructure program (CIP) projects must be balanced against the rate impacts on utility customers.

A detailed and comprehensive process was used to review the City's rates. As a part of the rate study process, a number of project meetings and conference calls were used to review the results with City management, and staff. From this process, final proposed rates were developed, and their development is reviewed in this section of the report. Following is a summary of each step in the process.

Revenue Requirement Analysis: The revenue requirement analysis revealed that generally financial changes have not been significant since the 2016 except costs are rising for with inflation as the economy has recovered. Water use is down while wastewater flows are not down a corresponding amount and wastewater treatment costs have continued to rise, which has resulted in revenue not keeping up. Notable changes are:

- Increased capital spending for required capital projects. The increases are not large but reflective of increased construction costs as the recession ended. The 2016 budget of \$600,000 for capital spending has been continually inflated at 3% per year and thus today the starting CIP budget is \$717,051 per year and will continue to be increased with 3% inflation assumed. This increased funding level is included in this rate update.
- The construction phase of the City of San Diego's Pure Water Program has begun, while the increases anticipated in the last rate study have not been quite as dramatic and has not happened as soon as anticipated, additional Metro costs are projected. City of San Diego staff has identified the increased funding level for the participating agencies from \$80 million to \$90 million over the next five-years. This increased funding level is included in this rate update.

The largest component of the City of Imperial Beach's revenue requirement are the costs associated with transportation, treatment, and disposal of the City's wastewater by the Metro facilities and associated City technical services. Per a protocol adopted by the City of San Diego and the Metro Commission, the PAs portion of the annual Metro budget is currently \$75 million per year and will be increasing to \$90 million. This budgeted amount is audited and adjusted at year-end, and the PAs either receive a refund if their actual costs are less than the budget or an invoice if their costs are more.

The City Council did approve a Metro pass through provision with the last rate case in 2016 that allows the City to adjust the rates that are billed to their customers. In FYE21, this provision was utilized and the capacity portion of the City's rates were increased.

Imperial Beach receives, from the City of San Diego, a 5 year projection and a current year fee projection. Additionally, when the City of San Diego's audits are concluded then the individual member agencies receive a "true up" bill. This bill amount varies from year to year based upon actual flows. While the City of San Diego tries to be conservative in their projections, wastewater flows do affect the final numbers as well as the amount of construction on their system that they were actually able to complete. These adjustments are called a "true up" bill. The audit process takes time and it can lag up to two to three years.

A summary of the projected expenses associated with these costs follows in Table 1-1.

Table 1-1 San Diego Metro Projections for Imperial Beach

	FYE21	FYE22	FYE23	FYE24	FYE25	FYE26
Treatment/Disposal/CIP	\$ 2,937,748	\$ 2,927,955	\$ 3,084,635	\$ 3,158,079	\$ 3,231,522	\$ 3,328,468
Transportation	\$ 3,500	\$ 3,605	\$ 3,713	\$ 3,825	\$ 3,939	\$ 4,057
City Technical Services	\$ 147,821	\$ 152,256	\$ 156,823	\$ 161,528	\$ 166,374	\$ 171,365
Total	\$ 3,100,000	\$ 3,095,075	\$ 3,256,768	\$ 3,335,376	\$ 3,414,138	\$ 3,516,563
	0.5%	-0.2%	5.2%	2.4%	2.4%	3.0%

For the FYE2021 rates, the Metro pass through provision that was approved in FY16 was enacted as the Metro costs and a true up bill was used to calculate FYE21's rates. The actual bill received from the City of San Diego for 2021 was actually \$3,022,097 which was higher than the pass through projected and are shown above as the above numbers were utilized in the calculation of the current pass through rates. The projection from the City of San Diego on January 4, 2021 for FYE2022 is as shown in the above table. The remaining years are from the City of San Diego's five year projections received May of 2020. Table 1-1 shows the costs are generally increasing during FYE's 2023-2026. Due to this variability and the uncertainty of construction costs for the Pure Water Program, the City must keep the pass through provision in the City's Ordinance in place and continue to monitor the costs incurred. It should be noted that the percent increases shown in Table 1-1 comprise a large portion of the rate adjustments proposed for the City's sewer rates.

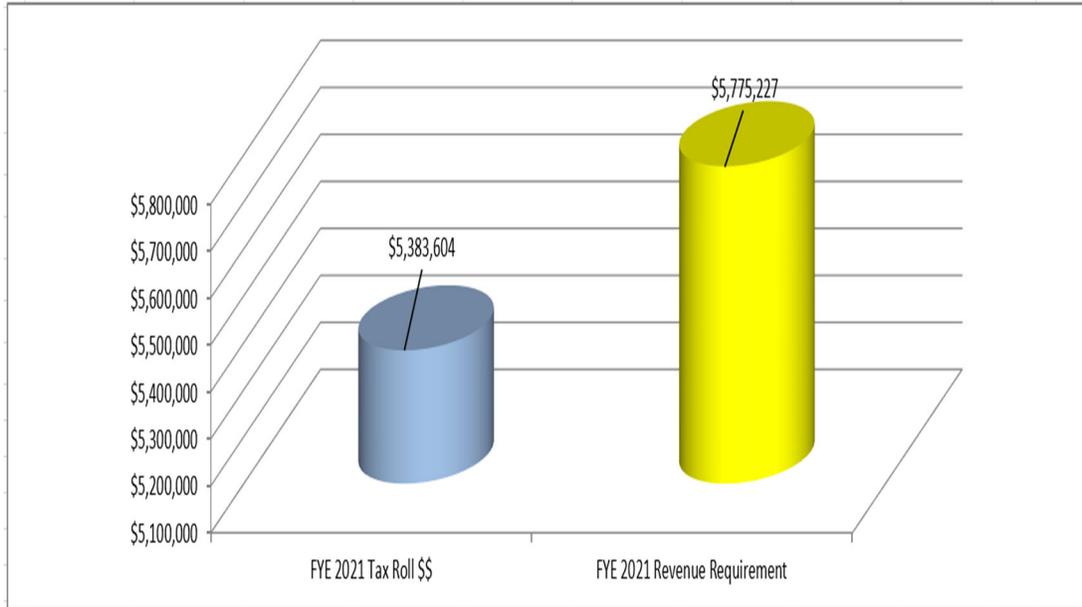
The City's FYE 2021 adopted sewer enterprise fund budget was updated to respond to these changed costs to create the revenue requirement for the updated rate case. Table 1-2 summarizes the major portions of the revenue requirement, which includes all updated costs.

Table 1-2 Updated Five-Year Rate Case Revenue Requirement

Expense Description	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025	FYE 2026
Operations & Maintenance Expenditures						
City O&M Budget	\$1,958,176	\$2,016,921	\$2,077,429	\$2,128,934	\$2,192,802	\$2,258,586
San Diego Metro Costs	\$3,100,000	\$3,095,075	\$3,256,768	\$3,335,376	\$3,414,138	\$3,516,563
Revenue Stabilization	\$0	\$110,600	\$44,500	\$80,500	\$105,900	\$104,300
Total Sewer O&M Budget	\$5,058,176	\$5,222,596	\$5,378,697	\$5,544,810	\$5,712,840	\$5,879,448
Nonoperating Expenditures						
Capital Improvements	\$717,051	\$738,563	\$760,720	\$783,541	\$807,048	\$831,259
Establish Replacement Reserve	\$206,000	\$212,180	\$218,545	\$225,102	\$231,855	\$238,810
Total Nonoperating Expenditures	\$923,051	\$950,743	\$979,265	\$1,008,643	\$1,038,902	\$1,070,069
Revenue Requirement	\$5,981,227	\$6,173,339	\$6,357,962	\$6,553,453	\$6,751,743	\$6,949,518

Figure 1-2 shows the FYE 2021 sewer user revenue that was placed on the San Diego County Property Tax Roll or hand-billed to government agencies of \$5,383,604. With the inclusion of the increased costs, the FYE 2021 revenue requirement (modified budget less reserves) increases to \$5,775,227. A detailed copy of the five-year revenue requirement is included in Appendix A to this report.

Figure 1-2 FYE 2021 Tax Roll Revenue versus FYE 2021 Revenue Requirement



Cost of Service Analysis: The cost of service analysis also revealed that several major changes have occurred in users and use that were not anticipated by the City's 2016 rate study and subsequently adopted sewer user rates. The significant changes are:

- As with other communities in San Diego County and Southern California, the City's citizens and businesses have continued to decrease their water usage by 15.5% since FYE 2016 water usage. This is another significant drop on top of the large drop that occurred between 2012 & 2016. This has decreased revenues from the adopted commodity rates.
- During this same period, the wastewater flows generated that must be treated has only reduced by 2-4%.

Table 1-3 summarizes the current number of City users and their projected sewer flows based on the current tax roll water use data for FYE 2021.

Table 1-3 Summary of Current Users and Estimated Sewer Flow FYE2021

Units of Service and Loadings	No. of Accounts	FLOW:		
		(A) Annual Consumption per User Class	(B) Rate of Return	(C) Adjust for Rate of Return
Single Family	4,535	(HCF) 384,989	75.0%	(HCF) 288,742
Subtotal- Residential	4,535	384,989		288,742
Commercial				
Rest/Bakeries/Mort./Groc.	48	12,603	90.0%	11,342
Small Commercial	118	13,051	90.0%	11,746
Car Wash/Laundries	15	15,540	90.0%	13,986
Public Agency/Institutional	67	34,043	75.0%	25,532
Heavy Commercial	17	10,317	90.0%	9,285
Mixed Use Light	30	5,809	90.0%	5,228
Mixed Use Heavy	2	277	90.0%	249
Navy	3	0	90.0%	0
Multi-Family	1,831	310,090	95.0%	294,585
Subtotal Non-Residential	2,131	401,730		371,955
TOTAL	6,666	786,719		660,696

Rate Design Analysis: In September 2015, the City Council held a planning workshop to review the history of the sewer industry as well as the City's sewer rate structures. Included in this review were alternative rate structures to the City's current structure and alternate ways of estimating sewer flow for user rates. In addition, the cost allocation process was reviewed.

The outcome of this review was that the Council approved continuing with the City's current rate structures and methodologies. The current sewer rate structures meet industry and Federal Government (EPA) standards and follows Best Management Practices (BMP's) established by the State of California.

The rate of return is calculated differently from agency to agency. Some do not calculate a rate of return and instead bill all SFR and MFR a flat billing rate and others use low winter month usage with a minimum amount that varies.

Low Winter Water Use

The low winter water use option is a formula that takes the lowest one or two months of water use in the winter billing periods and assumes that there is no irrigation that is occurring during that time. The water used during that period is assumed to have 100% return to the sewer and then those lowest average months are billed for the whole year. This methodology then is sometimes



accompanied by a minimum charge applied due to vacancies due to rental turn over or absent owners.

As part of this study, NV5 reviewed water usage from Cal Am and was not able to discern a lower winter water use period. Water use is not consistent throughout the year with many properties having random months of no water use. This is probably due to the high number of rental properties, vacation property owners with variable usage, and properties rented by military members who are regularly deployed for extended periods of time. With these issues, there could be properties that would actually pay more for wastewater service if there is a minimum charge. Therefore, it is not recommended to make a change to low winter water usage option to calculate wastewater bills.

Flat Rate Billing

Flat rate billing has been considered by the City in the past and can be done and still be in conformance with EPA standards. But it does benefit high water users as low water users would carry a higher percentage of the costs. During the previous discussion, that approach was not preferred.

The City is continuing to send more wastewater to be treated than water used. The City's CIP has been focused on limiting infiltration in the City's main lines and mainline infiltration has decreased. However, the City is still treating more wastewater than water used by their customers. Since wastewater treatment is the major element of the City's rates, until the flows to the treatment plant are reduced, the costs will remain.

Rate of Return Billing

The City currently uses a rate of return calculation to account for the water used on a property that does not return to the property. The percentages used by commercial businesses are consistent with other agencies with most being 90% and multifamily residential (MFR) being 95%. MFR properties often have a separate irrigation meter if there will be significant landscaping. In Imperial Beach, many MF properties have virtually no landscaping. Schools and City facilities fall into the Public Agency/Institutional classification and their properties usually have separate irrigation meters.

With the City's current rate of return for SFR of 75%, the City's average billing for SFR is 5.25 HCF. Average monthly billings by many agencies in San Diego County is 7 HCF for SFR. It is recommended the City increase the rate of return percentage with this rate study to a 90% rate of return for SFR and Public Agency/Institutional. This percentage is more in line with industry averages of 80%-90% rate of return for SFR. This will increase the SFR average monthly consumption billed to 6.37 HCF. Customers that are high irrigation users are encouraged to have a separate meter for their irrigation flows.

Table 1-4 Summary of Current Users and Estimated Sewer Flow FYE2022

Units of Service and Loadings	No. of Accounts	FLOW:		
		(A) Annual Consumption per User Class	(B) Rate of Return	(C) Adjust for Rate of Return
		(HCF)		(HCF)
Single Family	4,535	384,989	90.0%	346,490
Subtotal- Residential	4,535	384,989		346,490
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Rest/Bakeries/Mort./Groc.	48	12,603	90.0%	11,342
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Mixed Use Heavy	2	277	90.0%	249
Navy	3	0	90.0%	0
Multi-Family	1,831	310,090	95.0%	294,585
Subtotal Non-Residential	2,131	401,730		377,061
TOTAL	6,666	786,719		723,551

Flow Cap on Sewer Service Charges for SFR

Currently the SFR user class is subject to a “cap” on their sewer service charge. This cap is 200HCF of water use as it was previously assumed that water usage above that would be due to irrigation. With water conservation having expanded, that assumption is likely no longer valid. The City has seen an increase in Accessory Dwelling Units(ADUs). The City is also projected to add more ADUs in the future. The current law requires that those properties be treated as SFR even though there may be more units on the property, there may and may not be a separate water meter. They will however, tie into the existing sewer lateral of the current home, but with more people on the property they may add significantly more flow to the system. Given these changes and the opportunity for property owners to install irrigation meters if they wish to have lush landscaping, it is recommended that the cap be removed from the sewer flow calculation.

Summary

All classes of users will continue to be billed a base fee and a commodity fee based on their annual water usage with a calculated rate of return and sewage strength category. SFR and Public Agency/Institutional rate of return will increase from 75% to 90% in FY2022. The single-family user class will no longer have a "cap" on their sewer service charge.

1.2 Overview of FYE 2022-FYE 2026 Rate Case

Table 1-5 compares the current FYE 2021 adopted sewer rates with the proposed FYE 2022 and 2023 rates. Table 1-6 shows the remaining years of the FYE 2021 Rate Case (through FYE 2026).

Table 1-5 Comparison of Current versus Proposed Sewer User Rates

Classes of Users	FYE 2021 Rates		FYE 2022 Projected Rates		FYE 2023 Projected Rates	
	Base Charge (5/8" Water Meter)	Commodity Rate (\$ /HCF)	Base Charge (5/8" Water Meter)	Commodity Rate (\$ /HCF)	Base Charge (5/8" Water Meter)	Commodity Rate (\$ /HCF)
Single Family	\$232.41	\$5.80	\$239.38	\$5.97	\$246.46	\$6.15
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Public Agency/Institutional	\$232.41	\$4.86	\$239.38	\$5.01	\$246.46	\$5.16
Heavy Commercial	\$232.41	\$7.97	\$239.38	\$8.21	\$246.46	\$8.46
Mixed Use Light	\$232.41	\$6.16	\$239.38	\$6.34	\$246.46	\$6.54
Mixed Use Heavy	\$232.41	\$7.29	\$239.38	\$7.51	\$246.46	\$7.72
Navy	\$232.41	\$6.80	\$239.38	\$7.00	\$246.46	\$7.21
Multi-Family	\$232.41	\$5.80	\$239.38	\$5.97	\$246.46	\$6.15

Table 1-6 Comparison of Current versus Proposed Sewer User Rates

Classes of Users	FYE 2024 Projected Rates		FYE 2025 Projected Rates		FYE 2026 Projected Rates	
	Base Charge (5/8" Water Meter)	Commodity Rate (\$ /HCF)	Base Charge (5/8" Water Meter)	Commodity Rate (\$ /HCF)	Base Charge (5/8" Water Meter)	Commodity Rate (\$ /HCF)
Single Family	\$253.96	\$6.34	\$261.58	\$6.53	\$269.43	\$6.72
Non-Residential (Includes Multi-Family)						
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Car Wash/Laundries	\$253.96	\$5.52	\$261.58	\$5.68	\$269.43	\$5.85
Public Agency/Institutional	\$253.96	\$5.31	\$261.58	\$5.47	\$269.43	\$5.63
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Mixed Use Light	\$253.96	\$6.73	\$261.58	\$6.93	\$269.43	\$7.14
Mixed Use Heavy	\$253.96	\$7.97	\$261.58	\$8.20	\$269.43	\$8.45
Navy	\$253.96	\$7.43	\$261.58	\$7.65	\$269.43	\$7.88
Multi-Family	\$253.96	\$6.34	\$261.58	\$6.53	\$269.43	\$6.72

It should be noted that 91% of the City's current users have either a 5/8" or 3/4" water meter and thus pay the average base rate as shown on the prior tables. Large water meters are used by multi-family users with a large number of living units attached to the same water meter and large commercial properties. Table 1-7 shows the number of water meters by size as well as the projected rates for each size during the planning period.

Table 1-7 Comparison of Current versus Proposed Base Rates by Meter Size

Size of Water Meter	No. of Meters	AWWA Hydraulic Capacity	FYE 2021 Current Rate	FYE 2022	FYE 2023	FYE 2024	FYE 2025	FYE 2026
5/8"	5,753	1.00	\$ 232.41	\$ 239.38	\$ 246.46	\$ 253.96	\$ 261.58	\$ 269.43
3/4"	74	1.00	\$ 232.41	\$ 239.38	\$ 246.46	\$ 253.96	\$ 261.58	\$ 269.43
1"	629	1.67	\$ 347.79	\$ 356.83	\$ 367.38	\$ 378.56	\$ 389.92	\$ 401.61
1 1/2"	119	3.33	\$ 636.22	\$ 650.44	\$ 669.67	\$ 690.06	\$ 710.76	\$ 732.08
2"	86	5.33	\$ 982.35	\$1,002.78	\$ 1,032.43	\$ 1,063.86	\$ 1,095.78	\$ 1,128.64
3"	1	10.00	\$ 1,789.97	\$1,824.89	\$ 1,878.85	\$ 1,936.06	\$ 1,994.14	\$ 2,053.94
4"	2	16.67	\$ 2,943.71	\$2,999.35	\$ 3,088.03	\$ 3,182.05	\$ 3,277.52	\$ 3,375.80
6"	2	33.33	\$ 5,828.07	\$5,935.48	\$ 6,110.97	\$ 6,297.04	\$ 6,485.96	\$ 6,680.45
Total	6,666							

Table 1-8 summarizes the rate impacts on an average single-family when the items discussed in the Section 1.2 are applied. This increase for this first year reflects more than the 3% increase in the actual base rate and commodity rate because of the increase to the rate of return, which is variable with water usage.

Table 1-8 Determination of Average Single Family User Rates FYE 2022

	A	B	C	D	E	F	G	H
	Annual HCF	Rate of Return	Sewer Flow HCF	Base Charge	Commodity Charge	Total Annual	Total Monthly	Percent Change
Current 2021 Charges	86	75%	64.5	\$232.41	\$5.97	D+(E*C) \$617.73	F/12 \$ 51.48	
2022 Updated Rates	86	90%	77.4	\$239.38	\$5.97	\$ 701.77	\$ 58.48	
Total Change from 2021						\$ 84.04	\$ 7.00	13.6%

The average Imperial Beach single-family customer now uses 86 HCF annually. For rate-setting purposes, this is reduced by an updated rate of return to the sewer of 10% to convert water usage to a sewer flow of 77.4 HCF annually. This can further be converted to a monthly amount of 7.16 HCF and 6.45 HCF, respectively.

Figure 1-3 summarizes all San Diego Metro Member Agencies' comparative sewer user rates based on 7 HCF of water usage/sewer flow and a residential monthly base fee. Figure 1-4 summarizes the same metro agencies rates for 2022 including the proposed Imperial Beach rates. It should be noted that some of the Metro agencies are in the process of updating their sewer user

rates to include updated projects for the Pure Water Program or reduced water use due to conservation. There are some agencies that are not currently proposing any increases because they have large reserves or flat rates so that water conservation has not impacted the revenue or they will draw down their reserves to system needs. Imperial Beach however has less than six months of reserves and wastewater flows have not dropped as much as water use has.

Figure 1-3 Metro Member Agencies Sewer Rate Comparison for FY2021 Using 7 HCF Monthly Water use

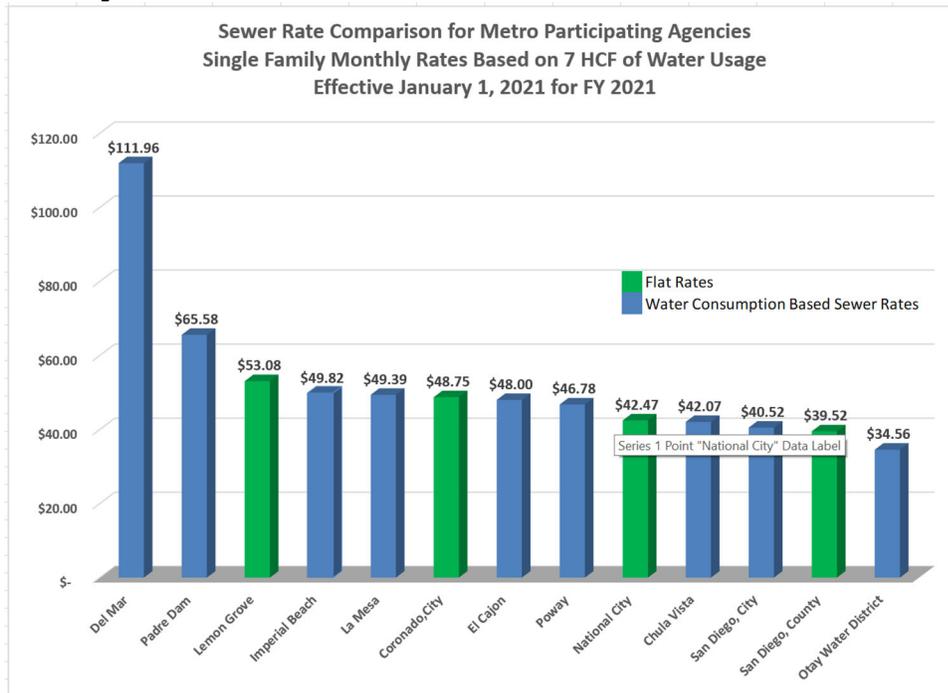
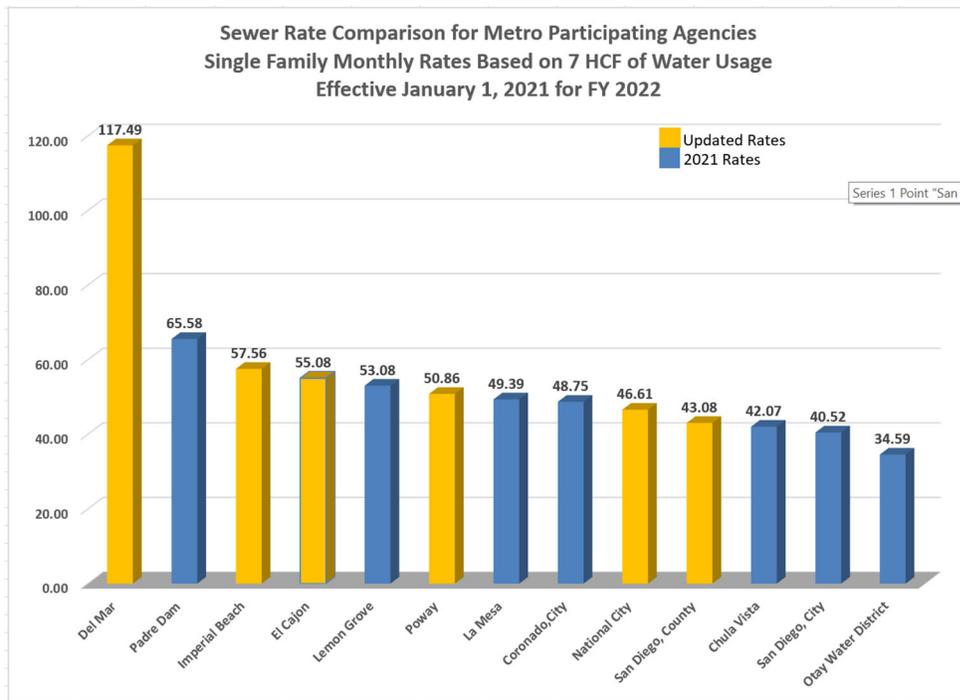


Figure 1.4 Metro Member Agencies Sewer Rate Comparison for FY2022 and which agencies rates have been updated for FY 2022



1.3 Other Billing Notes

Due to the configuration of multiple types of residential units on one parcel, it is recommended that the City continue with their definition of a single-family residential unit. It could read as follows:

- **Dwelling unit** is one independent living facility in a building or buildings intended for or providing permanent residence. The presence of independent living facilities for purposes of this title may be based on the existence of such facilities as:
 - Kitchen facilities (room or space used, intended for, or designated for food preparation, cooking, and eating)
 - Toilet facilities
 - Bathing facilities
 - Separate access from outdoors
 - Lack of access from the interior of any other dwelling or structure

- **Accessory dwelling unit** is either a detached or attached dwelling unit which provides complete, independent living facilities for one or two persons. It shall include permanent provisions for living, sleeping, eating, cooking, and sanitation on the same parcel as the primary unit is situated.

It is further noted that the City, considers a duplex to be two single-family residences. A multi-family living unit would follow the definition of a dwelling unit as described above but would be a tri-plex or larger or more than two living units on a parcel. The City should base these definitions on a per parcel basis not a per water meter basis due to the inconsistencies in the installation of water meters.

Section 2 - Capacity Fee Update

At the time of connection to a public agency's utility system, or at the expansion of existing units on a connection line, customers are typically charged a capacity fee. The capacity fee requires new users to pay for their share of costs to construct facilities required to provide their utility service or, in the case of increased density, their increased intensity of use. Revenues generated through capacity fees can be used to directly offset system expansion costs and/or for renewal and replacement capital projects. The use of capacity fee revenues to offset these CIP costs reduces the amount of revenue required from rates assessed to existing users. This way, capacity fee revenues, in effect, reimburse existing users (through lower rates) for costs they have incurred to build and maintain capacity for new users to connect to.

2.1 Overview of the Capacity Fee Rate

The 2016 rate study did a detailed analysis of the City's Capacity fees and Council updated the Fee per the recommendations. These fees need to be updated regularly to reflect the true value of its capital facilities, to ensure that these fees are in accordance with current industry guidelines and practice, and to properly value the City's investment in the Metro System and create a capacity fee per equivalent dwelling unit (EDU²). The adopted capacity fee, including all cost factors, was set at \$5,373 per EDU.

The San Diego Consumer Price Index between 2016 and December of 2020 has risen 10.6%. It is therefore recommended that the City's Capacity fee be increased from \$5,373 to \$5,943. It is also recommended that the City include in their ordinance that the Capacity Fee be indexed to inflation and thus annual adjustments are made to keep the Capacity fee current.

² One EDU is equivalent to the assumed gallons per day of a single-family residential user. Imperial Beach uses 232 gallons per day for a single-family residential user. All other users are assigned EDUs at the time they purchase a capacity fee in their proportional relationship to a single-family user.

Section 3 - Recommendations

The City proposes to update its sewer service charges and capacity fees. This report proposes several potential changes to both. This report includes two appendices to provide detailed data on the final rates. Appendix A contains the full output from the economic model used to create the user rates. The following recommendations are presented for the Council's review, discussion, and potential adoption.

3.1 Sewer User Fee Recommendations

1. Update rate case for FYE2022-FYE2026 to reflect current budget and financial forecasts.
2. Update rate case for FYE2022-FYE2026 to reflect current users, use, and revenue requirement.
3. Update the Rate of Return for Single Family Residential customers to 90%.
4. Remove the Cap on Wastewater Rates for Single Family Residential Customers.
5. Maintain "pass-through" ordinance to protect the City from unknown future costs.
6. Formally adopt and implement reserve polices.
 - Rate stabilization reserve: 6-months operating cash.
 - Rebuild to \$3 million minimum as per Council policy.
 - Capital reserve: \$700,000 annually for required major capital repairs.
 - Replacement reserve: establish based on annual depreciation (+\$300,000) to provide a reserve for replacement projects.
7. Review annual actual revenue to projected revenue to maintain financial stability should use patterns or revenue requirement change.

3.2 Capacity Fee Recommendations

Update the Capacity Fee for SFR to \$5,943 per EDU and include an index adjustment to inflation in the City Ordinance.

APPENDIX A

**City of Imperial Beach
Sewer Enterprise Fund**

	FY21	FY22	FY23	FY24	FY25	FY26
	6	7	8	9	10	11
Non - Operating Revenue						
346.70-03 County Sewer Collections	\$ 5,500,000	\$ -	\$ -	\$ -	\$ -	\$ -
346.70-04 Sewer Fees-Special Bille	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
346.70-05 Sewer Capacity Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
361.80-01 Allocated Interest	\$ -	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
361.80-02 Non-Allocated Interest	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
601-5060 SEWER ENTERPRISE FUND						
Employee Costs						
436.10-01 SALARIES FULL-TIME	\$ 410,185	\$ 422,491	\$ 435,165	\$ 448,220	\$ 461,667	\$ 475,517
436.10-03 OVERTIME	\$ 15,900	\$ 16,377	\$ 16,868	\$ 17,374	\$ 17,896	\$ 18,432
436.10-07 STAND-BY PAY	\$ 22,268	\$ 22,936	\$ 23,624	\$ 24,333	\$ 25,063	\$ 25,815
436.10-08 AUTO ALLOWANCE	\$ 4,440	\$ 4,573	\$ 4,710	\$ 4,852	\$ 4,997	\$ 5,147
436.10-08 CELL PHONE ALLOWANCE	\$ 1,140	\$ 1,174	\$ 1,209	\$ 1,246	\$ 1,283	\$ 1,322
436.11-01 PERS-CITY PORTION	\$ 38,082	\$ 39,224	\$ 40,401	\$ 41,613	\$ 42,862	\$ 44,147
436.11-02 PERS-EMPLOYEE PORTION	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
436.11-03 SECTION 125 CAFETERIA	\$ 75,977	\$ 78,256	\$ 80,604	\$ 83,022	\$ 85,513	\$ 88,078
436.11-04 LIFE INSURANCE	\$ 1,113	\$ 1,146	\$ 1,181	\$ 1,216	\$ 1,253	\$ 1,290
436.11-05 UNEMPLOYMENT INSURANCE	\$ 2,344	\$ 2,414	\$ 2,487	\$ 2,561	\$ 2,638	\$ 2,717
436.11-06 WORKER'S COMP INSURANCE	\$ 24,484	\$ 25,219	\$ 25,975	\$ 26,754	\$ 27,557	\$ 28,384
436.11-07 FICA	\$ 31,337	\$ 32,277	\$ 33,245	\$ 34,243	\$ 35,270	\$ 36,328
436.11-08 HEALTH REIMBURSEMENT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
436.11-10 FRINGE BENEFITS / PENSION EXPENSE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Costs						
436.20-06 PROFESSIONAL SERVICES	\$ 20,000	\$ 20,600	\$ 21,218	\$ 21,855	\$ 22,510	\$ 23,185
436.20-23 SECURITY & ALARM	\$ 4,200	\$ 4,326	\$ 4,456	\$ 4,589	\$ 4,727	\$ 4,869
436.21-01 TEMPORARY STAFFING	\$ 30,000	\$ 30,900	\$ 31,827	\$ 32,782	\$ 33,765	\$ 34,778
436.21-04 TECHNICAL SERVICES	\$ 3,100,000	\$ 3,095,075	\$ 3,256,768	\$ 3,335,376	\$ 3,414,138	\$ 3,516,563
436.21-23 TRAFFIC CONTROL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
436.25-02 RENT-EQUIPMENT	\$ 1,000	\$ 1,030	\$ 1,061	\$ 1,093	\$ 1,126	\$ 1,159
436.26-03 PUBLIC WORKS ADMIN	\$ 380,283	\$ 391,691	\$ 403,442	\$ 415,546	\$ 428,012	\$ 440,852
436.26-04 ABC-ADMIN SVC CHARGE	\$ 159,715	\$ 164,506	\$ 169,442	\$ 174,525	\$ 179,761	\$ 185,153
436.26-05 ABC-TECHNOLOGY SVC CHARGE	\$ 66,043	\$ 68,024	\$ 70,065	\$ 72,167	\$ 74,332	\$ 76,562
436.26-06 ABC-RISK MGMT SVC CHARGE	\$ 65,400	\$ 67,362	\$ 69,383	\$ 71,464	\$ 73,608	\$ 75,817
436.26-07 ABC-FMP EQUIPMENT CHARGE	\$ 123,943	\$ 127,661	\$ 131,491	\$ 135,436	\$ 139,499	\$ 143,684
436.26-08 ABC-FACILITIES CHARGE	\$ 9,900	\$ 10,197	\$ 10,503			
436.27-01 GAS & ELECTRIC (SDG&E)	\$ 75,000	\$ 77,250	\$ 79,568	\$ 81,955	\$ 84,413	\$ 86,946
436.27-02 UTILITIES-WATER	\$ 5,000	\$ 5,150	\$ 5,305	\$ 5,464	\$ 5,628	\$ 5,796
436.27-04 UTILITIES-TELEPHONE	\$ 500	\$ 515	\$ 530	\$ 546	\$ 563	\$ 580
436.28-01 MAINTENANCE & REPAIR	\$ 40,000	\$ 41,200	\$ 42,436	\$ 43,709	\$ 45,020	\$ 46,371
436.28-04 TRAVEL, TRAINING, MEETING	\$ 6,500	\$ 6,695	\$ 6,896	\$ 7,103	\$ 7,316	\$ 7,535
436.28-09 POSTAGE & FREIGHT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
436.28-12 MEMBERSHIP DUES	\$ 900	\$ 927	\$ 955	\$ 983	\$ 1,013	\$ 1,043
436.28-13 FEES & LICENSES	\$ 2,500	\$ 2,575	\$ 2,652	\$ 2,732	\$ 2,814	\$ 2,898
436.29-04 OTHER SERVICES & CHARGES	\$ 5,000	\$ 5,150	\$ 5,305	\$ 5,464	\$ 5,628	\$ 5,796
436.29-06 LOSS ON SALE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
436.30-02 OPERATING SUPPLIES	\$ 12,000	\$ 12,360	\$ 12,731	\$ 13,113	\$ 13,506	\$ 13,911
436.30-22 SMALL TOOLS/NON-CAPITAL	\$ 700	\$ 721	\$ 743	\$ 765	\$ 788	\$ 811
436.50-04 EQUIPMENT	\$ 20,000	\$ 20,600	\$ 21,218	\$ 21,855	\$ 22,510	\$ 23,185
436.00-00 REBUILD OPERATIONS RESERVE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
436.70-01 DEPRECIATION EXPENSE	\$ 302,322	\$ 311,392	\$ 320,733	\$ 330,355	\$ 340,266	\$ 350,474
436.90-01 TRANSFER OUT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL SEWER ENTERPRISE FUND	\$ 5,058,176	\$ 5,111,996	\$ 5,334,197	\$ 5,464,310	\$ 5,606,940	\$ 5,775,148
TOTAL O&M	\$ 5,058,176	\$ 5,111,996	\$ 5,334,197	\$ 5,464,310	\$ 5,606,940	\$ 5,775,148

City of Imperial Beach
Sewer Enterprise Fund

	FY21	FY22	FY23	FY24	FY25	FY26
Historic Capital Reserve Annual Funding (\$717K inflated)						
Transfer to Capital Reserve for CIP Funding	\$ 717,051	\$ 738,563	\$ 760,720	\$ 783,541	\$ 807,048	\$ 831,259
TOTAL CAPITAL RESERVE	\$ 717,051	\$ 738,563	\$ 760,720	\$ 783,541	\$ 807,048	\$ 831,259
Transfers						
Establish Minimum Capital Reserve Fund	\$ 206,000	\$ 212,180	\$ 218,545	\$ 225,102	\$ 231,855	\$ 238,810
Additional Operating Reserves						
TOTAL TRANSFERS	\$ 206,000	\$ 212,180	\$ 218,545	\$ 225,102	\$ 231,855	\$ 238,810
TOTAL NONOPERATING EXPENDITURES	\$ 923,051	\$ 950,743	\$ 979,265	\$ 1,008,643	\$ 1,038,902	\$ 1,070,069
FLOW STABILIZATION RESERVES		\$ 110,600	\$ 44,500	\$ 80,500	\$ 105,900	\$ 104,300
TOTAL REVENUE REQUIREMENTS	\$ 5,981,227	\$ 6,173,339	\$ 6,357,962	\$ 6,553,453	\$ 6,751,743	\$ 6,949,518
TOTAL BUDGET PRIOR TO TRANSFERS	\$ 5,981,227	\$ 6,173,339	\$ 6,357,962	\$ 6,553,453	\$ 6,751,743	\$ 6,949,518

City of Imperial Beach
FY 21 Base Year Model
Step 2 -- Determination of Unit Costs

		FY21	FY22	FY23	FY24	FY25	FY26
Cost Category		Unit Cost					
1. Customer Related Costs		\$ 391,635	\$ 410,104	\$ 422,186	\$ 435,087	\$ 448,140	\$ 461,577
Number of Customers		6,666	6,666	6,666	6,666	6,666	6,666
Unit Cost (\$ / Customer)		\$ 58.75	\$ 61.52	\$ 63.33	\$ 65.27	\$ 67.23	\$ 69.24
2. Capacity Related Costs		\$ 1,337,614	\$ 1,394,542	\$ 1,435,824	\$ 1,479,488	\$ 1,523,875	\$ 1,569,572
Number of Hydraulic Equivalencies		7,841	7,841	7,841	7,841	7,841	7,841
Unit Cost		\$ 170.60	\$ 177.86	\$ 183.13	\$ 188.69	\$ 194.36	\$ 200.18
Total Fixed Charge Based on Hydraulic Meters		\$ 229.35	\$ 239.38	\$ 246.46	\$ 253.96	\$ 261.58	\$ 269.43
Accounts		6,666	6,666	6,666	6,666	6,666	6,666
Base Charge (Fixed costs divided by total accounts)		\$ 259.41	\$ 270.72	\$ 278.73	\$ 287.21	\$ 295.83	\$ 304.70
3. Collection System Volume Related Costs		\$ 1,151,978	\$ 1,273,618	\$ 1,243,184	\$ 1,303,503	\$ 1,365,589	\$ 1,401,806
Annual Flow (HCF)		660,696	723,551	723,551	723,551	723,551	723,551
Unit Cost (\$ / HCF)		\$ 1.74	\$ 1.76	\$ 1.72	\$ 1.80	\$ 1.89	\$ 1.94
4. Treatment Plant - Wastewater Strength Related		\$ 3,100,000	\$ 3,095,075	\$ 3,256,768	\$ 3,335,376	\$ 3,414,138	\$ 3,516,563
	Parameter Allocation %'s						
Flow (HCF)	49.1%	\$ 1,522,100	\$ 1,519,682	\$ 1,599,073	\$ 1,637,670	\$ 1,676,342	\$ 1,726,632
BOD (LBS.)	24.0%	\$ 744,000	\$ 742,818	\$ 781,624	\$ 800,490	\$ 819,393	\$ 843,975
SS (LBS.)	26.9%	\$ 833,900	\$ 832,575	\$ 876,071	\$ 897,216	\$ 918,403	\$ 945,955
	100.00%						
Annual Flow (HCF)		660,696	723,551	723,551	723,551	723,551	723,551
Pounds of BOD (lbs)	50.9%	873,703	949,949	949,949	949,949	949,949	949,949
Pounds of SS (lbs)		840,042	915,332	915,332	915,332	915,332	915,332
Unit Cost (\$ / HCF)		\$ 2.30	\$ 2.10	\$ 2.21	\$ 2.26	\$ 2.32	\$ 2.39
Unit Cost (\$ / lb)		\$ 0.85	\$ 0.78	\$ 0.82	\$ 0.84	\$ 0.86	\$ 0.89
Unit Cost (\$ / lb)		\$ 0.99	\$ 0.91	\$ 0.96	\$ 0.98	\$ 1.00	\$ 1.03
Total Revenue Requirement For Rates		\$ 5,981,227	\$ 6,173,339	\$ 6,357,962	\$ 6,553,453	\$ 6,751,743	\$ 6,949,518
Add ___ Revenue		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Add Fog Program Revenue		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total		\$ 5,981,227	\$ 6,173,339	\$ 6,357,962	\$ 6,553,453	\$ 6,751,743	\$ 6,949,518
Check		-	-	-	-	-	-

City of Imperial Beach

Service Charge Calculation for FY 2022-26
Based on FY 2020 Meter Count (Provided 10/29/20)

6,366

User Group	5/8"	3/4"	1"	1 1/2"	2"	3"	4"	6"
Single Family	4,333	61	139	1	1			
Multi-family	1,266	11	424	81	48	1		
Rest/Bakeries/Mort./Groc.	32		8	5	3			
Small Commercial	83		25	8	2			
Car Wash/Laundries	4		1	8	2			
Public Agency/Institutional	16	2	13	12	22		2	
Heavy Commercial	3		5	3	6			
Mixed Use Light	14		13	1	2			
Mixed Use Heavy	1		1					
Navy	1							2
Total	5,753	74	629	119	86	1	2	2
Scaling Factor---> 67%								
5/8" AWWA Meter								
Capacity Factor -->>	1.0	1.5	2.5	5.0	8.0	15.0	25.0	50.0
Hydraulic Capacity Facto	1.00	1.00	1.67	3.33	5.33	10.00	16.67	33.33
Number of Hydraulic Equivalent Meters								
Single Family	4,333	61	232	3	5	0	0	0
Multi-family	1,266	11	707	270	256	10	0	0
Rest/Bakeries/Mort./Groc.	32	0	13	17	16	0	0	0
Small Commercial	83	0	42	27	11	0	0	0
Car Wash/Laundries	4	0	2	27	11	0	0	0
Public Agency/Institutional	16	2	22	40	117	0	33	0
Heavy Commercial	3	0	8	10	32	0	0	0
Mixed Use Light	14	0	22	3	11	0	0	0
Mixed Use Heavy	1	0	2	0	0	0	0	0
Navy	1	0	0	0	0	0	0	67
Total	5,753	74	1,048	397	459	10	33	67

City of Imperial Beach
 FY21 Base Year Model
 Step 4 - Sewer Rate Determination

FY21				Unit Charges		Unit Charges - Monthly Fixed Charge & Commodity Rate							
User Group	No. of Cust. Accts	Hydraulic Equivalents	Adjusted Yrly Consumption (HCF)	Fixed Yearly \$/Acct.	Commodity Rate (\$ /HCF)	Cust Fixed Charge	Cap Fixed Charge (5/8")	Total Fixed Charge (5/8")	Commodity Rate (\$ /HCF)	Revenue - Fixed/ Flat Charges	Revenue - Commodity Charges	Total	%
Single Family	4,535	4,634	288,742	\$ 259.41	\$ 5.80	\$ 4.90	\$ 14.22	\$ 19.11	\$ 5.80	\$ 1,057,051	\$ 1,674,703	\$ 2,731,754	48.7%
Subtotal- Residential	4,535	4,634	288,742							\$ 1,057,051	\$ 1,674,703	\$ 2,731,754	
Non-Residential (Includes Multi-family)													
Rest/Bakeries/Mort./Groc.	48	78	11,342	\$ 259.41	\$ 12.17	\$ 4.90	\$ 14.22	\$ 19.11	\$ 12.17	\$ 16,127	\$ 138,036	\$ 154,163	2.7%
Small Commercial	118	162	11,746	\$ 259.41	\$ 5.25	\$ 4.90	\$ 14.22	\$ 19.11	\$ 5.25	\$ 34,570	\$ 61,668	\$ 96,237	1.7%
Car Wash/Laundries	15	43	13,986	\$ 259.41	\$ 5.05	\$ 4.90	\$ 14.22	\$ 19.11	\$ 5.05	\$ 8,217	\$ 70,627	\$ 78,845	1.4%
Public Agency/Institutional	67	230	25,532	\$ 259.41	\$ 4.86	\$ 4.90	\$ 14.22	\$ 19.11	\$ 4.86	\$ 43,231	\$ 124,088	\$ 167,319	3.0%
Heavy Commercial	17	53	9,285	\$ 259.41	\$ 7.97	\$ 4.90	\$ 14.22	\$ 19.11	\$ 7.97	\$ 10,097	\$ 74,004	\$ 84,101	1.5%
Mixed Use Light	30	50	5,228	\$ 259.41	\$ 6.16	\$ 4.90	\$ 14.22	\$ 19.11	\$ 6.16	\$ 10,236	\$ 32,205	\$ 42,440	0.8%
Mixed Use Heavy	2	3	249	\$ 259.41	\$ 7.29	\$ 4.90	\$ 14.22	\$ 19.11	\$ 7.29	\$ 572	\$ 1,817	\$ 2,390	0.0%
Navy	3	68	0	\$ 259.41	\$ 6.80	\$ 4.90	\$ 14.22	\$ 19.11	\$ 6.80	\$ 11,720	\$ 0	\$ 11,720	0.2%
Multi-family	1,831	2,520	294,585	\$ 259.41	\$ 5.80	\$ 4.90	\$ 14.22	\$ 19.11	\$ 5.80	\$ 537,427	\$ 1,708,595	\$ 2,246,022	40.0%
Subtotal Non-Residential	2,131	3,206	371,955							\$ 672,198	\$ 2,211,040	\$ 2,883,237	51.3%
Total	6,666	7,841	660,696							\$ 1,729,249	\$ 3,885,743	\$ 5,614,992	100%
Check	-	-	-							31%	69%	\$ (366,235)	
												\$ 5,614,992	
FY22				Unit Charges		Unit Charges - Monthly Fixed Charge & Commodity Rate							
User Group	No. of Cust. Accts	Hydraulic Equivalents	Adjusted Yrly Consumption (HCF)	Fixed Yearly \$/Acct.	Commodity Rate (\$ /HCF)	Cust Fixed Charge	Cap Fixed Charge (5/8")	Total Fixed Charge (5/8")	Commodity Rate (\$ /HCF)	Revenue - Fixed/ Flat Charges	Revenue - Commodity Charges	Total	%
Single Family	4,535	4,634	346,490	\$ 270.72	\$ 5.97	\$ 5.13	\$ 14.82	\$ 19.95	\$ 5.97	\$ 1,103,264	\$ 2,069,422	\$ 3,172,686	51.4%
Subtotal- Residential	4,535	4,634	346,490							\$ 1,103,264	\$ 2,069,422	\$ 3,172,686	
Non-Residential (Includes Multi-family)													
Rest/Bakeries/Mort./Groc.	48	78	11,342	\$ 270.72	\$ 12.15	\$ 5.13	\$ 14.82	\$ 19.95	\$ 12.54	\$ 16,826	\$ 142,233	\$ 159,059	2.6%
Small Commercial	118	162	11,746	\$ 270.72	\$ 5.44	\$ 5.13	\$ 14.82	\$ 19.95	\$ 5.41	\$ 36,073	\$ 63,547	\$ 99,620	1.6%
Car Wash/Laundries	15	43	13,986	\$ 270.72	\$ 5.22	\$ 5.13	\$ 14.82	\$ 19.95	\$ 5.20	\$ 8,571	\$ 72,725	\$ 81,296	1.3%
Public Agency/Institutional	67	230	30,639	\$ 270.72	\$ 5.06	\$ 5.13	\$ 14.82	\$ 19.95	\$ 5.01	\$ 45,089	\$ 153,501	\$ 198,590	3.2%
Heavy Commercial	17	53	9,285	\$ 270.72	\$ 8.08	\$ 5.13	\$ 14.82	\$ 19.95	\$ 8.21	\$ 10,532	\$ 76,233	\$ 86,764	1.4%
Mixed Use Light	30	50	5,228	\$ 270.72	\$ 6.33	\$ 5.13	\$ 14.82	\$ 19.95	\$ 6.34	\$ 10,679	\$ 33,146	\$ 43,825	0.7%
Mixed Use Heavy	2	3	249	\$ 270.72	\$ 7.42	\$ 5.13	\$ 14.82	\$ 19.95	\$ 7.51	\$ 597	\$ 1,872	\$ 2,470	0.0%
Navy	3	68	0	\$ 270.72	\$ 6.95	\$ 5.13	\$ 14.82	\$ 19.95	\$ 7.00	\$ 12,220	\$ 0	\$ 12,220	0.2%
Multi-family	1,831	2,520	294,585	\$ 270.72	\$ 5.97	\$ 5.13	\$ 14.82	\$ 19.95	\$ 5.97	\$ 560,795	\$ 1,759,420	\$ 2,320,214	37.6%
Subtotal Non-Residential	2,131	3,206	377,061							\$ 701,382	\$ 2,302,676	\$ 3,004,058	48.6%
Total	6,666	7,841	723,551							\$ 1,804,646	\$ 4,372,098	\$ 6,176,744	100%
Check	-	-	-							29%	71%	\$ 3,405	
												\$ 6,176,744	
Unit Charges - Monthly													

City of Imperial Beach
 FY21 Base Year Model
 Step 4 - Sewer Rate Determination

FY23				Unit Charges		Fixed Charge & Commodity Rate							
User Group	No. of Cust. Accts	Hydraulic Equivalents	Adjusted Yrly Consumption (HCF)	Fixed Yearly \$/Acct.	Commodity Rate (\$ /HCF)	Cust Fixed Charge	Cap Fixed Charge (5/8")	Total Fixed Charge (5/8")	Commodity Rate (\$ /HCF)	Revenue - Fixed/ Flat Charges	Revenue - Commodity Charges	Total	%
Single Family	4,535	4,634	346,490	\$ 278.73	\$ 6.15	\$ 5.28	\$ 15.26	\$ 20.54	\$ 6.15	\$ 1,135,884	\$ 2,131,097	\$ 3,266,981	52.9%
Subtotal- Residential	4,535	4,634	346,490							\$ 1,135,884	\$ 2,131,097	\$ 3,266,981	
Non-Residential (Includes Multi-family)													
Rest/Bakeries/Mort./Groc.	48	78	12,603	\$ 278.73	\$ 11.38	\$ 5.28	\$ 15.26	\$ 20.54	\$ 12.91	\$ 17,324	\$ 162,699	\$ 180,023	2.8%
Small Commercial	118	162	13,051	\$ 278.73	\$ 5.04	\$ 5.28	\$ 15.26	\$ 20.54	\$ 5.57	\$ 37,140	\$ 72,696	\$ 109,836	1.7%
Car Wash/Laundries	15	43	15,540	\$ 278.73	\$ 4.82	\$ 5.28	\$ 15.26	\$ 20.54	\$ 5.36	\$ 8,824	\$ 83,292	\$ 92,117	1.4%
Public Agency/Institutional	67	230	34,043	\$ 278.73	\$ 4.67	\$ 5.28	\$ 15.26	\$ 20.54	\$ 5.16	\$ 46,423	\$ 175,663	\$ 222,086	3.5%
Heavy Commercial	17	53	10,317	\$ 278.73	\$ 7.54	\$ 5.28	\$ 15.26	\$ 20.54	\$ 8.46	\$ 10,843	\$ 87,282	\$ 98,125	1.5%
Mixed Use Light	30	50	5,809	\$ 278.73	\$ 5.87	\$ 5.28	\$ 15.26	\$ 20.54	\$ 6.54	\$ 10,995	\$ 37,990	\$ 48,985	0.8%
Mixed Use Heavy	2	3	277	\$ 278.73	\$ 6.91	\$ 5.28	\$ 15.26	\$ 20.54	\$ 7.72	\$ 615	\$ 2,138	\$ 2,753	0.0%
Navy	3	68	0	\$ 278.73	\$ 6.46	\$ 5.28	\$ 15.26	\$ 20.54	\$ 7.21	\$ 12,581	\$ 0	\$ 12,582	0.2%
Multi-family	1,831	2,520	294,585	\$ 278.73	\$ 6.15	\$ 5.28	\$ 15.26	\$ 20.54	\$ 6.15	\$ 577,380	\$ 1,811,855	\$ 2,389,234	37.2%
Subtotal Non-Residential	2,131	3,206	386,225							\$ 722,126	\$ 2,433,616	\$ 3,155,742	49.1%
Total	6,666	7,841	732,715							\$ 1,858,010	\$ 4,564,713	\$ 6,422,723	102%
Check	-		(54,003)							29%	71%	\$ 64,761	
											\$ 6,422,723		

FY24				Unit Charges		Unit Charges - Monthly Fixed Charge & Commodity Rate							
User Group	No. of Cust. Accts	Hydraulic Equivalents	Adjusted Yrly Consumption (HCF)	Fixed Yearly \$/Acct.	Commodity Rate (\$ /HCF)	Cust Fixed Charge	Cap Fixed Charge (5/8")	Total Fixed Charge (5/8")	Commodity Rate (\$ /HCF)	Revenue - Fixed/ Flat Charges	Revenue - Commodity Charges	Total	%
Single Family	4,535	4,634	346,490	\$ 287.21	\$ 6.34	\$ 5.44	\$ 15.72	\$ 21.16	\$ 6.34	\$ 1,170,469	\$ 2,197,050	\$ 3,367,519	54.5%
Subtotal- Residential	4,535	4,634	346,490							\$ 1,170,469	\$ 2,197,050	\$ 3,367,519	
Non-Residential (Includes Multi-family)													
Rest/Bakeries/Mort./Groc.	48	78	12,603	\$ 287.21	\$ 11.70	\$ 5.44	\$ 15.72	\$ 21.16	\$ 13.30	\$ 17,851	\$ 167,614	\$ 185,465	2.9%
Small Commercial	118	162	13,051	\$ 287.21	\$ 5.19	\$ 5.44	\$ 15.72	\$ 21.16	\$ 5.74	\$ 38,270	\$ 74,915	\$ 113,185	1.8%
Car Wash/Laundries	15	43	15,540	\$ 287.21	\$ 4.97	\$ 5.44	\$ 15.72	\$ 21.16	\$ 5.52	\$ 9,093	\$ 85,779	\$ 94,871	1.5%
Public Agency/Institutional	67	230	34,043	\$ 287.21	\$ 4.82	\$ 5.44	\$ 15.72	\$ 21.16	\$ 5.31	\$ 47,836	\$ 180,770	\$ 228,605	3.6%
Heavy Commercial	17	53	10,317	\$ 287.21	\$ 7.76	\$ 5.44	\$ 15.72	\$ 21.16	\$ 8.71	\$ 11,173	\$ 89,861	\$ 101,035	1.6%
Mixed Use Light	30	50	5,809	\$ 287.21	\$ 6.05	\$ 5.44	\$ 15.72	\$ 21.16	\$ 6.73	\$ 11,330	\$ 39,094	\$ 50,424	0.8%
Mixed Use Heavy	2	3	277	\$ 287.21	\$ 7.11	\$ 5.44	\$ 15.72	\$ 21.16	\$ 7.97	\$ 634	\$ 2,208	\$ 2,841	0.0%
Navy	3	68	0	\$ 287.21	\$ 6.65	\$ 5.44	\$ 15.72	\$ 21.16	\$ 7.43	\$ 12,964	\$ 0	\$ 12,964	0.2%
Multi-family	1,831	2,520	294,585	\$ 287.21	\$ 6.34	\$ 5.44	\$ 15.72	\$ 21.16	\$ 6.34	\$ 594,955	\$ 1,867,928	\$ 2,462,883	38.3%
Subtotal Non-Residential	2,131	3,206	386,225							\$ 744,106	\$ 2,508,168	\$ 3,252,274	50.6%
Total	6,666	7,841	732,715							\$ 1,914,574	\$ 4,705,219	\$ 6,619,793	105%
Check	6,666		732,715							29%	71%	\$ 66,340	
											\$ 6,619,793		

Unit Charges - Monthly

City of Imperial Beach
 FY21 Base Year Model
 Step 4 - Sewer Rate Determination

FY25				Unit Charges		Fixed Charge & Commodity Rate							
User Group	No. of Cust. Accts	Hydraulic Equivalents	Adjusted Yrly Consumption (HCF)	Fixed Yearly \$/Acct.	Commodity Rate (\$ /HCF)	Cust Fixed Charge	Cap Fixed Charge (5/8")	Total Fixed Charge (5/8")	Commodity Rate (\$ /HCF)	Revenue - Fixed/ Flat Charges	Revenue - Commodity Charges	Total	%
Single Family	4,535	4,634	346,490	\$ 295.83	\$ 6.53	\$ 5.60	\$ 16.20	\$ 21.80	\$ 6.53	\$ 1,205,585	\$ 2,263,923	\$ 3,469,508	56.2%
Subtotal- Residential	4,535	4,634	346,490							\$ 1,205,585	\$ 2,263,923	\$ 3,469,508	
Non-Residential (Includes Multi-family)													
Rest/Bakeries/Mort./Groc.	48	78	12,603	\$ 295.83	\$ 12.01	\$ 5.60	\$ 16.20	\$ 21.80	\$ 13.70	\$ 18,387	\$ 172,655	\$ 191,042	3.0%
Small Commercial	118	162	13,051	\$ 295.83	\$ 5.36	\$ 5.60	\$ 16.20	\$ 21.80	\$ 5.91	\$ 39,418	\$ 77,134	\$ 116,552	1.8%
Car Wash/Laundries	15	43	15,540	\$ 295.83	\$ 5.13	\$ 5.60	\$ 16.20	\$ 21.80	\$ 5.68	\$ 9,366	\$ 88,265	\$ 97,631	1.5%
Public Agency/Institutional	67	230	34,043	\$ 295.83	\$ 4.98	\$ 5.60	\$ 16.20	\$ 21.80	\$ 5.47	\$ 49,271	\$ 186,217	\$ 235,487	3.7%
Heavy Commercial	17	53	10,317	\$ 295.83	\$ 7.98	\$ 5.60	\$ 16.20	\$ 21.80	\$ 8.97	\$ 11,508	\$ 92,544	\$ 104,052	1.6%
Mixed Use Light	30	50	5,809	\$ 295.83	\$ 6.23	\$ 5.60	\$ 16.20	\$ 21.80	\$ 6.93	\$ 11,670	\$ 40,256	\$ 51,926	0.8%
Mixed Use Heavy	2	3	277	\$ 295.83	\$ 7.32	\$ 5.60	\$ 16.20	\$ 21.80	\$ 8.20	\$ 653	\$ 2,271	\$ 2,924	0.0%
Navy	3	68	0	\$ 295.83	\$ 6.85	\$ 5.60	\$ 16.20	\$ 21.80	\$ 7.65	\$ 13,353	\$ 0	\$ 13,353	0.2%
Multi-family	1,831	2,520	294,585	\$ 295.83	\$ 6.53	\$ 5.60	\$ 16.20	\$ 21.80	\$ 6.53	\$ 612,804	\$ 1,924,784	\$ 2,537,588	39.5%
Subtotal Non-Residential	2,131	3,206	386,225							\$ 766,430	\$ 2,584,125	\$ 3,350,555	52.2%
Total	6,666	7,841	732,715							\$ 1,972,015	\$ 4,848,048	\$ 6,820,063	108%
Check	6,666		732,715							29%	71%	\$ 68,320	
											\$ 6,820,063		

FY26				Unit Charges		Unit Charges - Monthly Fixed Charge & Commodity Rate							
User Group	No. of Cust. Accts	Hydraulic Equivalents	Adjusted Yrly Consumption (HCF)	Fixed Yearly \$/Acct.	Commodity Rate (\$ /HCF)	Cust Fixed Charge	Cap Fixed Charge (5/8")	Total Fixed Charge (5/8")	Commodity Rate (\$ /HCF)	Revenue - Fixed/ Flat Charges	Revenue - Commodity Charges	Total	%
Single Family	4,535	4,634	346,490	\$ 304.70	\$ 6.72	\$ 5.77	\$ 16.68	\$ 22.45	\$ 6.72	\$ 1,241,737	\$ 2,329,566	\$ 3,571,302	57.8%
Subtotal- Residential	4,535	4,634	346,490							\$ 1,241,737	\$ 2,329,566	\$ 3,571,302	
Non-Residential (Includes Multi-family)													
Rest/Bakeries/Mort./Groc.	48	78	12,603	\$ 304.70	\$ 12.37	\$ 5.77	\$ 16.68	\$ 22.45	\$ 14.11	\$ 18,938	\$ 177,822	\$ 196,760	3.1%
Small Commercial	118	162	13,051	\$ 304.70	\$ 5.51	\$ 5.77	\$ 16.68	\$ 22.45	\$ 6.09	\$ 40,600	\$ 79,483	\$ 120,083	1.9%
Car Wash/Laundries	15	43	15,540	\$ 304.70	\$ 5.28	\$ 5.77	\$ 16.68	\$ 22.45	\$ 5.85	\$ 9,647	\$ 90,907	\$ 100,553	1.6%
Public Agency/Institutional	67	230	34,043	\$ 304.70	\$ 5.12	\$ 5.77	\$ 16.68	\$ 22.45	\$ 5.63	\$ 50,748	\$ 191,663	\$ 242,412	3.8%
Heavy Commercial	17	53	10,317	\$ 304.70	\$ 8.21	\$ 5.77	\$ 16.68	\$ 22.45	\$ 9.24	\$ 11,854	\$ 95,329	\$ 107,183	1.7%
Mixed Use Light	30	50	5,809	\$ 304.70	\$ 6.42	\$ 5.77	\$ 16.68	\$ 22.45	\$ 7.14	\$ 12,020	\$ 41,476	\$ 53,495	0.8%
Mixed Use Heavy	2	3	277	\$ 304.70	\$ 7.53	\$ 5.77	\$ 16.68	\$ 22.45	\$ 8.45	\$ 672	\$ 2,341	\$ 3,013	0.0%
Navy	3	68	0	\$ 304.70	\$ 7.05	\$ 5.77	\$ 16.68	\$ 22.45	\$ 7.88	\$ 13,753	\$ 0	\$ 13,754	0.2%
Multi-family	1,831	2,520	294,585	\$ 304.70	\$ 6.72	\$ 5.77	\$ 16.68	\$ 22.45	\$ 6.72	\$ 631,181	\$ 1,980,593	\$ 2,611,774	40.7%
Subtotal Non-Residential	2,131	3,206	386,225							\$ 789,413	\$ 2,659,614	\$ 3,449,027	53.7%
Total	6,666	7,841	732,715							\$ 2,031,150	\$ 4,989,179	\$ 7,020,329	112%
Check	6,666		732,715							29%	71%	\$ 70,811	