

Final Report



City of Santa Barbara
Wastewater Capacity Charge
June 2022





June 20, 2022

Mr. Joshua Haggmark
Water Resources Manager
City of Santa Barbara – Public Works
630 Garden Street
Santa Barbara, CA 93101

Subject: Development of the Wastewater Capacity Charge Final Report

Dear Mr. Haggmark:

HDR Engineering, Inc. (HDR) was retained by the City of Santa Barbara (City) to conduct a review and update of the wastewater capacity charge study (Study). The conclusions and recommendations contained within this report should enable the City to implement cost-based wastewater capacity charge that meet the City's growth and financial policy objectives.

This report has been prepared using generally accepted rate and fee setting principles. The City's financial and engineering data were the primary sources for much of the data contained in this report.

HDR appreciates the opportunity to assist the City in this matter. We also would like to thank you and your staff for assistance provided to us during the development of the Study.

Very truly yours,
HDR Engineering, Inc.

A handwritten signature in black ink, appearing to read 'Shawn Koorn', followed by a stylized flourish.

Shawn Koorn
Associate Vice President

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Executive Summary

Introduction

HDR Engineering, Inc. (HDR) was retained by the City of Santa Barbara (City) to review and update the wastewater capacity charge. The purpose of capacity charges is to recover the costs of public facilities in existence at the time the fee is imposed proportional to the benefit for the person or property being charged. These charges are a one-time charge for new customers connecting to the system, or to existing customers increasing their capacity.

The current wastewater capacity charge is based on an analysis completed in 2016. By establishing a cost-based capacity charge, the City will be taking a necessary step in providing adequate infrastructure to provide the required service for a new customer in a cost-based, proportional, and equitable manner. This report provides a summary of the findings, conclusions, and recommendations for the City's wastewater capacity charge. This report provides the basis for the City to implement a cost-based wastewater capacity charge.

Conclusions

The capacity charge must be implemented according to the capacity requirement, or impact, each new customer has on the utility system. By doing so, the capacity charge is directly related to the impact the customer places on the system, and to the proportional benefit the customer derives from the wastewater services provided.

In simplified terms, the City's wastewater capacity charge is based on the value of the existing wastewater system infrastructure needed to provide wastewater services divided by the number of existing equivalent units served by that infrastructure. The calculations also take into account the financing mechanisms of capital improvements. Based on the sum of the existing component costs, the net allowable capacity charge is determined. "Net" refers to the calculated "gross" capacity charge, less any credits (debt service, for example). "Allowable" refers to the concept that the calculated capacity charges are the City's maximum cost-based charge. As a matter of policy, the City may charge any amount up to the cost-based capacity charge, but not in excess of that amount. Charging an amount greater than the calculated "allowable" capacity charge would not reflect the benefit derived by the customer.

The City charges new customers connecting to the wastewater system a one-time capacity charge. The charge is a reimbursement for their portion of the system use that has been funded through wastewater rates (i.e., existing customers) over time on a per equivalent unit basis. The current equivalent unit is based on a 5/8" meter. Single family customers pay the same wastewater capacity charge, unless it is determined that the need for a larger meter size is due to indoor domestic needs that will discharge to the wastewater system. For non-residential customers, the capacity charge is charged on a per meter size basis.

To begin to calculate the proposed maximum allowable wastewater capacity charge, the value of the existing infrastructure was developed. As a result of this analysis, a replacement cost net of current depreciation expense was produced. In this way, the existing system was valued at

today's value (as of March 2022) and reduced to reflect the depreciated value. It is important to note that the wastewater capacity charge was reduced to reflect outstanding debt that was used to fund existing system improvements so that customers do not pay twice — once through the capacity charge and again through monthly wastewater rates. Based on this analysis, which is discussed in more detail later in this report, the maximum allowable wastewater capacity charge can be developed.

Provided in Table ES - 1 is a summary of the existing fee for an equivalent unit, and the proposed maximum allowable capacity charge.

Table ES – 1 Existing and Maximum Allowable Wastewater Capacity Charge		
Fee Description	Existing Capacity Charge	Maximum Allowable Capacity Charge
Wastewater Capacity Charge	\$3,885	\$3,744

Based on the results of the analysis, it is recommended that the wastewater capacity charge be reduced at this time to match the calculated maximum allowable wastewater capacity charge. The detailed development of the City's wastewater capacity charge is presented in Section 4. Technical appendices are included within this report to document the technical analyses that were undertaken as a part of the Study.

Summary

This report documents the development of the Agency's maximum allowable wastewater capacity charge. The development of this charge utilized generally accepted rate and fee principles, while applying City specific planning, asset, and customer information. The study recommendations were presented on May 10, 2022 to the Finance Committee as part of the City wide fee schedules. On June 14, 2022 a public hearing was held where the City Council took public comments. At the conclusion of the public hearing the proposed wastewater capacity charges, as developed in this report, were adopted by the City Council.

Disclaimer

HDR, in its calculation of the wastewater capacity charge presented in this report, has used generally accepted rate and fee making principles¹. This should not be construed as a legal opinion with respect to California law. HDR recommends that the City have its legal counsel review the wastewater capacity charge as set forth in this report to ensure compliance with California law.

¹ Principles established in industry documents referenced as System Development Charges for Water, Wastewater, and Stormwater Facilities, by Arthur C. Nelson, Seventh Edition; and WEF Manual of Practice No. 27, Financing and Charges for Wastewater Systems, Fourth Edition.

1 Introduction and Overview of Capacity Charges

The purpose of capacity charges is to fund a proportionate share of costs for the City's wastewater system. The capacity charges provide the means of balancing the cost requirements for utility infrastructure between existing customers and new customers. The portion of existing infrastructure that will provide service (i.e., capacity) to new customers is included in the calculation of the capacity charge. By establishing a cost-based wastewater capacity charge, the City maintains an approach of having new customers buy-in to the existing wastewater system infrastructure to maintain equity between existing and new customers.

An important starting point in establishing capacity charges is to have a basic understanding of their purpose along with the criteria and general methodologies that are used to establish cost-based capacity charges. Presented in this section of the report is an overview of these capacity charges and the criteria and general methodologies that may be used to develop cost-based capacity charges.

1.1 Defining Capacity Charge

The first step in establishing cost-based capacity charge is to gain a better understanding of the definition of a capacity charge, sometimes referred to as system development charge (SDC) or connection fee. For the purposes of this report, a capacity charge or SDC is defined as follows:

*"System development charges (capacity charges) are one-time charges paid by new development to finance construction of public facilities needed to serve them."*²

Capacity charges are generally imposed as a condition of service. The objective of capacity charges is not to generate revenue for the utility, but to create a fiscal balance between existing customers and new customers. In this way, all customers seeking to connect to the utility's system bear an equitable share of the cost of capacity that has been invested in the existing infrastructure. Through the implementation of cost-based capacity charges, existing customers will be reimbursed for prior investments in the wastewater system infrastructure. If cost-based capacity charges are not implemented, then existing utility customers will bear (i.e., pay for) a greater portion of the costs associated with the wastewater system development. Ultimately, the adoption of the final capacity charges is a policy decision by the City Council regarding the sharing of costs between new and existing customers.

1.2 Requirement Under California State Law

In establishing capacity charges, an important requirement is that they be developed and implemented in conformance with State and local laws. California law provides the basis for the determination of development fees (capacity charge) through a uniform framework for the

² Arthur C. Nelson, System Development Charges for Water, Wastewater, and Stormwater Facilities, Lewis Publishers, New York, 1995, p. 1,

imposition of development fees by local governments. Specifically, the requirement for the calculation of development fees in California are found in the California Government Code sections 66013, 66016, and 66022, which are interspersed within the ‘Mitigation Fee Act’.

A summary of the relevant statutes required in the calculation of development fees under California law is as follows:

“66013 (a) Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity fees, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount of the fee or charge imposed in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue.”

“66013 (b) (3) ‘Capacity charge’ means a charge for public facilities in existence at the time a charge is imposed or charges for new public facilities to be acquired or constructed in the future that are of proportional benefit to the person or property being charged, including supply or capacity contracts for rights or entitlements, real property interests, and entitlements and other rights of the local agency involving capital expense relating to its use of existing or new public facilities. A “capacity charge” does not include a commodity charge.”

“66022 (a) Any judicial action or proceeding to attack, review, set aside, void, or annul an ordinance, resolution, or motion adopting a new fee or service charge, or modifying or amending an existing fee or service charge, adopted by a local agency, as defined in Section 66000, shall be commenced within 120 days of the effective date of the ordinance, resolution, or motion.”

In addition to the determination of “the estimated reasonable cost of providing the service for which the fee is imposed,” California law also requires date and time notifications similar to other rate and fee setting processes as follows:

- That notice (of the time and place of the meeting, including a general explanation of the matter to be considered) and a statement that certain data is available be mailed to those who filed a written request for such notice,
- That certain data (the estimated cost to provide the service and anticipated revenue sources) be made available to the public,
- An opportunity for public input at an open and public meeting to adopt or modify the fee, and
- That revenue in excess of actual cost be used to reduce the fee creating the excess.

In 1996, the voters of California approved Proposition 218, which required that the imposition of certain fees and assessments by municipal governments require a vote of the people to change or increase the fee or assessment. In *Richmond v. Shasta Community Services Dist.*, 32 Cal.4th 409 (2004), the California Supreme Court held that development fees are not “assessments” under Proposition 218 because they are imposed only on those who are voluntarily seeking water and/or wastewater service, rather than being charged to particular identified parcels, and

therefore such fees are not subject to the procedural or substantive requirements of Proposition 218. The court also held that such fees can properly be enacted by either ordinance or resolution.

In November 2010 the voters of California passed Proposition 26, an initiative based state constitutional amendment that provided a new definition of the term “tax” in the California Constitution. Under Proposition 26 a fee or charge imposed by a public agency is a tax unless it meets one of seven exceptions. “Development fees”, or capacity charges, would be included within exceptions 1 and/or 2. These two exception note that the development fee or charge is:

- (1) “A charge imposed for a specific benefit conferred... directly to the payor that is not provided to those not charged, and which does not exceed the reasonable cost to the local government of conferring the benefit...,”
- (2) “A charge imposed for a specific government service... directly to the payor that is not provided to those not charged, and which does not exceed the reasonable cost to the local government of providing the service or product.”

In the case of the City’s wastewater capacity charge, the City does not charge one fee payer more in order to charge another fee payer less (i.e., a cross-subsidy), and it does not exceed the reasonable costs of providing the service. Given this, a wastewater capacity charge is not interpreted as being a tax within the meaning of Proposition 26.

In simplified terms, the basic principle that needs to be followed under California law is that the capacity charge be based on a proportionate share of the costs of the system required to provide service and that the requirements for adoptions and accounting be followed in compliance with California law.

1.3 Methodology to Development of Capacity Charges

In establishing capacity charges, there are differing methodologies. The WEF Manual of Practice #27 discusses three generally accepted methods;

- ✓ “The **buy-in approach** is based on the value of the existing system’s capacity. This method is typically used when the existing system has sufficient capacity to serve new development now and into the future.
- ✓ The **planned facility/growth approach** is based on the value or cost to expand the existing system’s capacity. This method is typically used when the existing system has limited or no capacity to serve new development now and into the future.
- ✓ The **combined approach** is based on the value of both the existing and expanded system’s capacity. This method is typically used where some capacity is available in parts of the existing system (e.g., source of supply), but new or incremental capacity will need to be built in other parts (e.g., treatment plant) to serve new development at some point in the future.”³

For the development and calculation of the City’s wastewater capacity charges, the “buy-in method” was used. Accordingly, the value of City assets will be determined and then be divided

³ WEF MOP #27, 4th Edition, p. 206-211.

by the total number of existing equivalent units. The result will be the maximum allowable wastewater capacity charges.

Regardless of the overall methodology selected, a common denominator of the technical analyses is the various steps undertaken. These steps are as follows:

1. Determination of system planning criteria
2. Determination of equivalent units
3. Calculation of existing system costs
4. Determination of credits

Step 1 – Determination of System Planning Criteria

System planning criteria are used to establish the capacity needs of an equivalent unit. Sewer volume or flows represents the basis for system design. For the City, the current meter equivalency factors, which are based on the AWWA meter equivalencies, were used for the different meter sizes as a way to equitably weight larger meter sizes based on assumed capacity differences. The number of customers by meter size was based on data from the City's utility billing system.

Step 2 – Determination of Equivalent Units

The next step is the determination of the number of equivalent meters i.e., equivalent units. An equivalent provides a "common denominator" for assessing impact on a utility system. The number of equivalent units were developed based on the current number of water meters by size of service meter and the corresponding AWWA meter weights based on the safe operating capacity for each meter. This approach provides the needed linkage between the amount of infrastructure necessary to provide service to a set number of customers.

Step 3 – Valuation of System Component Costs

Once the number of equivalent units for the system is determined, a component-by-component system analysis is undertaken to determine the portion of the capacity charges attributable in dollars per equivalent unit. In this process, the existing assets must be valued. Existing assets may be valued in a number of different ways. These methods may include the following:

- ✓ Original Cost (OC)
- ✓ Original Cost Less Depreciation (OCLD)
- ✓ Replacement Cost New (RCN)
- ✓ Replacement Cost New Less Depreciation (RCNLD)

Given these four different methods for valuing the assets, the selection of the valuation method certainly arises. While the Water Environment Federation MOP 27 outlines the above approach, the American Water Works Association M-1 manual provides the following detailed summary of these generally accepted valuation methods which apply to both water and wastewater utilities:

"Using the OC and OCLD valuations, the [connection fee] reflects the original investment in the existing capacity. The new customer "buys in" to the capacity at the OC or the net book value cost (OCLD) for the facilities and as a result pays an amount similar to what

the existing customers paid for the capacity (OC) or the remaining value of the original investment (OCLD).

Using the RCN and the RCNLD valuations, the [connection fee] reasonably reflects the cost of providing new expansion capacity to customers as if the capacity was added at the time the new customers connected to the water system. It may be also thought of as a valuation method to fairly compensate the existing customers for the carrying costs of the excess capacity built into the system in advance of when the new customers connect to the system. This is because, up to the point of the new customer connecting to the system, the existing customers have been financially responsible for the carrying costs of that excess capacity that is available to development.”⁴

As a point of reference for the Study, the City’s wastewater capacity charge analysis will use a RCNLD methodology for all assets. The City’s existing assets are valued at “replacement” cost based on original cost escalated to current dollars using the Engineering News Record, Construction Cost Index (ENR-CCI). This value reasonably reflects the carrying costs of the excess capacity paid by existing customers and is also the same method used in the previous capacity charge study. Infrastructure not paid by the utility, such as developer contributions or grants is not included.

Step 4 – Determination of Credits

The last step in the calculation of the capacity charge is the determination of any credits. The credit takes into account the method used to finance infrastructure on the system so that customers are not paying twice for infrastructure – once through the capacity charge and again through wastewater user rates. The double payment can come in through the imposition of a capacity charge and then the requirement to pay debt service within a customer’s wastewater user rates.

This component accounts for the outstanding debt principal on existing assets. By segregating the debt service, the cost can be clearly identified and calculated appropriately. To avoid double-counting of the assets financed with debt, the remaining principal associated with those assets was deducted from the existing infrastructure value.

Based on the existing costs, the net allowable capacity charge is determined. “Net” refers to the calculated “gross” capacity charge, net of any debt service credits. “Allowable” refers to the concept that the calculated capacity charge are the City’s maximum cost-based capacity charge. The City - as a matter of policy - may charge any amount up to the calculated maximum cost-based capacity charge, but not in excess of that amount. Charging an amount greater than the “allowable” capacity charge would not meet the nexus test of a cost-based capacity charge related to the benefit derived by the customer.

1.4 Summary

This section of the report has summarized the approach to developing a cost-based capacity charge. The City’s capacity charge approach must be established based on the overview of the requirements under California state law. At the heart of the requirements is the nexus between

⁴ Ibid., p. 268

new customers (or additional incremental capacity needs) connecting to the wastewater system and the facilities required to accommodate the customers. That is, the appropriate apportionment of the costs of infrastructure in relation to benefits reasonably to be received by the new customer. The next section of the report will provide a discussion of the calculation of the wastewater capacity charge for the City.

2 Calculation of the Capacity Charge

This section of the report presents the details and assumptions in the calculation of the wastewater capacity charge. The calculation of the capacity charge is based on the City's accounting and planning information. The City's equivalent units provide the required support for a "rationally based public policy" to support the implementation of cost-based capacity charge.

2.1 Overview of the City's Wastewater System

The City of Santa Barbara's wastewater system is critical infrastructure that protects public health and the environment. The City owns and operates the El Estero Water Resource Center (El Estero) with a treatment capacity of 6 million gallons per day (mgd). The City's collection system consists of 254 miles of sewer mains which deliver wastewater flows to El Estero.

2.2 Current Wastewater Capacity Charge

The current capacity charge for the City is assessed on a per equivalent unit basis. The equivalent unit is predicated on a single family customer and a 5/8" meter and is weighted based on the AWWA equivalencies for non-residential customers. Based on the number of meters by size and the equivalencies, the total number of equivalent units can be determined. With this information, the City can then develop the appropriate capacity charge. The City's current wastewater capacity charge is based on an equivalent unit which is defined as a 5/8" meter. This definition then provides the basis for when the capacity charge is implemented on a water meter size basis. The City's current wastewater capacity charge is shown below in Table 2 - 1.

Table 2 – 1 Current Wastewater Capacity Charge	
	\$ / Equiv. Unit
Wastewater Capacity Charge	\$3,885

2.3 Net Allowable Wastewater Capacity Charge

In calculating the wastewater capacity charge for the City, existing infrastructure costs, contributed/donated assets, outstanding debt service principal for existing facilities, and capital improvements for FY 2022 were taken into consideration in the calculation of the charge. The methodology used to calculate each of these components is described below.

2.3.1 Equivalent Units

As part of this study, a calculation of equivalent units was determined. This information was based on the data provided in the City's current wastewater rate study. A summary of the equivalent units for 2022 are presented below in Table 2 – 2. The approach was to take the current number of wastewater customer meters by size, and based on the meter equivalency factor, calculate the number of current equivalent units. As noted, an equivalent unit is a residential customer with a 5/8" meter. In this way, the calculation of an equivalent unit reflects

Table 2 – 2
Wastewater Equivalent Units

Meter Size	# of Meters	Equivalent Meter Factor	# of Equiv. Meters
5/8"	19,913	1.0	19,913
3/4"	1,263	1.5	1,895
1"	3,697	2.5	9,243
1 1/2"	734	5.0	3,670
2"	641	8.0	5,128
3"	20	15.0	300
4"	12	25.0	300
6"	15	50.0	750
8"	2	80.0	160
10"	0	115.0	0
Total	26,297		41,358

the typical capacity placed on the system for a residential customer. Details of the equivalent unit projection are provided in Exhibit 1 of the Technical Appendix.

Given the development of the total equivalent units, the focus can shift to the calculation of the capacity charge for each plant component. The projection of equivalent units is shown in Exhibit 1 of the Technical Appendix. This aspect of the analysis is discussed below.

2.3.2 Existing or Buy-In Component

To calculate the value of the existing assets for the buy-in approach, the City's methodology considered the replacement cost of each asset. The replacement cost of each asset was then depreciated for the remaining useful life (i.e., replacement cost less depreciation).

The City provided an asset listing for the various existing components and their installation dates. The replacement value of the existing system was based on costs from the City's data. Based on the installation date for each asset and an estimated useful life provided by the City, the replacement cost for each asset was depreciated. Existing facilities not funded by the City were excluded from the wastewater capacity charge as these contributions do not reflect the investment made by the City.

The inclusion of a "debt service credit" avoids double charging the customer for the asset value in the existing or buy-in component of the wastewater capacity charge and again in the debt service component of the wastewater rates. The principal portion of the debt service balance on existing assets is removed from the value prior to calculating the buy-in portion of the fee.

2.3.3 Debt Service Component

This component accounts for the principal on existing assets. By segregating the debt service costs, the cost can be clearly identified and calculated appropriately. To avoid double-counting of the assets financed with debt, the future principal associated with those assets was deducted from the existing infrastructure value.

The City has four outstanding issues for the wastewater system. The total outstanding debt service principal is \$38.6 million which is deducted from the calculation so that customers do not pay twice for the financing of infrastructure. Further detail can be seen in the Wastewater Technical Appendix in Exhibit 11.

2.3.4 Summary

An important requirement for a wastewater capacity charge study is the connection between the required facilities and the current equivalent units. For purposes of the Study, the City's most current Capital Improvement Plan (CIP) was provided and the projects from FY 2022 were incorporated in the Study. Capital improvements totaled \$10.4 million for FY 2022. The Wastewater Technical Appendix Exhibit 2 contains the details of this portion of the capacity charge.

Based on the sum of the component costs, the net allowable wastewater capacity charge was calculated. "Allowable" refers to the concept that the calculated capacity charge is the City's cost-based charge. The City, as a matter of policy, may charge any amount up to the allowable capacity charge, but not in excess of that amount. Charging an amount greater than the allowable capacity charge would not meet the nexus test of a cost-based capacity charge. Shown in Table 2 – 3 is a summary of the calculation by component.

Table 2 – 3 Summary of the Wastewater Capacity Charge Calculation			
Description	Total	Equivalent Meters	Total (\$ / Eq. Unit)
Assets			
Collection	\$104,338,696	41,358	\$2,523
Treatment	59,054,605	41,358	1,428
General	10,199,040	41,358	247
CWIP	0	41,358	0
CIP (FY 2022)	<u>10,422,677</u>	41,358	<u>252</u>
Total Assets	\$173,592,341		\$4,449
Debt Service			
2004/16 Revenue Bond	(\$5,995,000)	41,358	(\$145)
CWSRF Loan – FOG	(1,205,261)	41,358	(29)
CWSRF Loan – Headworks	(3,235,491)	41,358	(78)
Aeration Loan	(28,148,839)	41,358	(681)
Future SRF – Electrical Project	<u>0</u>	41,358	<u>0</u>
Total Debt Service	(\$38,584,590)		(\$933)
Council Reserve Minimum Policy	9,425,271	41,358	228
Capacity Charge			\$3,744

The data used in the calculation summarized in Table 2 – 3 is derived from Exhibits 2 through 4 of the Technical Appendix. As can be seen in Table 2 – 3, the maximum allowable wastewater capacity charge is \$3,744 for a 5/8" meter. The City implements the wastewater capacity charge based on the water service meter size which is a surrogate for the wastewater capacity required by customers. Provided in Table 2 – 4 is a summary of the proposed wastewater capacity charges by meter size.

Table 2 – 4 Existing and Maximum Allowable Wastewater Capacity Charge				
Meter Size	Meter Equivalency Factor	Existing Capacity Charge	Calculated Capacity Charge	\$ Difference
5/8"	1.00	\$3,885	\$3,744	(\$141)
3/4"	1.50	5,828	5,616	(212)
1"	2.50	9,713	9,361	(352)
2"	5.00	19,427	18,721	(706)
3"	8.00	31,082	29,954	(1,128)
4"	15.00	58,280	56,164	(2,116)
6"	25.00	97,133	93,607	(3,526)
8"	50.00	194,265	187,214	(7,051)
10"	80.00	310,824	299,542	(11,282)

As shown in Table 2 – 4, the wastewater capacity charge is implemented based on the customer water meter size. As a point of reference, the wastewater capacity charge is only charged to those customer receiving, or requesting, wastewater services. For example, the wastewater capacity charge is not charged to an irrigation customer or meter, as there is no wastewater service associated with the irrigation meter.

The City's General Plan policies promote smaller, high-density multi-family dwelling units, and State legislation requires that to the extent capacity charges are allowed on Accessory Dwelling Units (ADUs), the wastewater capacity charges be based on the size of the unit, or the number of plumbing fixtures. To account for the fact that most multi-family units do not require the entire capacity of the City's smallest water meter offering, and for State regulations on charges affecting ADUs, the City adopted a \$/fixture unit approach for multi-unit dwellings and ADUs served by a dedicated water meter. The California Plumbing Code ascribes fixture unit values to common plumbing fixtures and based on Plumbing Code, the capacity of one 5/8" meter is equal to 30 fixture units. Staff and HDR recommend continuing with this \$/fixture unit approach which is summarized in Table 2 – 5 below.

Table 2 – 5
Multi-Family Dwelling Unit Wastewater Capacity Charge

Current Capacity Charge (\$ / Fixture Unit)	Proposed FY 2023 Capacity Charge (\$ / Fixture Unit)	Difference
\$129.51	\$124.81	(\$4.70)

2.4 Key Wastewater Assumptions

In the development of the City's capacity charge, a number of key assumptions were utilized. These are as follows:

- The wastewater capacity charges were developed on the basis of the City's planning documents
- The City's asset records were used to determine the existing infrastructure assets and their value
- Contributed and donated assets are excluded from the analysis and calculation of the wastewater capacity charge
- The City provided financial records related to outstanding wastewater debt service principal
- The City provided the most recent wastewater CIP for FY 2022
- The base year for the CIP was assumed to be March 2022
- The calculation of the debt credit component included current outstanding principal on existing assets

2.5 Implementation of the Wastewater Capacity Charge

HDR would recommend that the City adjust the wastewater capacity charge on an annual basis using the Engineering News Record Construction Cost Index (ENR-CCI) 20 City average to reflect the cost of interest and inflation. After five years, major infrastructure changes, or updated planning documents, HDR recommends that the City update the wastewater capacity charge based on the actual cost of infrastructure.

2.6 Consultant Recommendations

Based on our review and analysis of the City's wastewater capacity charge, HDR provides the following recommendations:

- ❖ The City should update the current wastewater capacity charge based on the calculated maximum allowable wastewater capacity charge
- ❖ The City should make periodic (annual) adjustments to the wastewater capacity charge based on changes in the Engineering News Record Construction Cost Index 20 City Average.
- ❖ The City should update the wastewater capacity charge every 5 years.

2.7 Summary

The development of the City's wastewater capacity charge by HDR utilized generally accepted engineering and rate and fee making principles, while applying City specific planning, asset and customer information. The study recommendations were presented on May 10, 2022 to the Finance Committee as part of the City wide fee schedules. On June 14, 2022 a public hearing was held where the City Council took public comments. At the conclusion of the public hearing the proposed wastewater capacity charges, as developed in this report, were adopted by the City Council. HDR would recommend that the City have its legal counsel review the wastewater capacity charge and this report before any adjustments are made to ensure compliance with California law.



Technical Appendix

City of Santa Barbara
Wastewater Capacity Charge
Equivalent Unit Projections
Exhibit 1

	SFR	MFR 1-4 DU	MFR 5+ DU	COM	IND	Total	Equivancy	Eq. Units
5/8"	13,342	4,580	462	1,514	15	19,913	1.00	19,913
3/4"	928	207	16	103	9	1,263	1.50	1,895
1"	2,405	626	231	430	5	3,697	2.50	9,243
1 1/2"	163	25	318	207	21	734	5.00	3,670
2"	82	26	170	362	1	641	8.00	5,128
3"	0	0	6	14	0	20	15.00	300
4"	0	0	1	11	0	12	25.00	300
6"	0	0	3	10	2	15	50.00	750
8"	0	0	0	2	0	2	80.00	160
10"	0	0	0	0	0	0	115.00	0
	----- 16,920	----- 5,464	----- 1,207	----- 2,653	----- 53	----- 26,297		----- 41,358

City of Santa Barbara
Wastewater Capacity Charge
Capital Improvement Projects
Exhibit 2

		FY 2022 Total ^[1]	Capacity Charge Eligible %	Capacity Charge Eligible \$	Source
Capital Improvement Projects					
<i>Treatment</i>	El Estero WRC Electrical Dist. Renewal	\$829,633	0.0%	\$0	
<i>Treatment</i>	El Estero WRC Maintenance Program	2,739,773	100.0%	2,739,773	
<i>Treatment</i>	El Estero WRC Strategic Plan Implementation	24,007	100.0%	24,007	
<i>Collection</i>	Lift Station Maintenance Program	629,384	100.0%	629,384	
<i>Collection</i>	Sanitary Sewer Capacity Improvement Program	851,889	100.0%	851,889	
<i>Collection</i>	Sanitary Sewer Overflow Compliance Program	6,127,624	100.0%	6,127,624	
<i>General</i>	Sea-Level Rise Adaption Program	50,000	100.0%	50,000	
		\$11,252,310		\$10,422,677	
Treatment		\$3,593,413		\$2,763,780	
Collection		7,608,897		7,608,897	
General		50,000		50,000	
		\$11,252,310		\$10,422,677	
Notes					

[1] - CIP taken from 2021 Wastewater rate study

City of Santa Barbara
Wastewater Capacity Charge
Collection
Exhibit 3

Year	Book Value	Cost ^[1] 2022\$	Connection Fee Eligible	Connection Fee Cost
Existing Assets				
1978 STORM DRAIN AND SEWERS	\$0	\$0	100.0%	\$0
1984 SEWER PIPES	18,666,298	57,615,978	100.0%	57,615,978
1985 EASTSIDE TRUNK	2,764	8,362	100.0%	8,362
2000 HWY 101/MILPAS INTERCHANGE	186,321	379,328	100.0%	379,328
2001 SEWER MAIN REPLACEMENT	430,954	862,622	100.0%	862,622
2005 INFLOW & INFILTRATION STUDY OF COLLECTIO	14,008	23,431	100.0%	23,431
2007 CONEJO ROAD & LANE SEWER MAIN REHAB	159,463	252,142	100.0%	252,142
2007 SANITARY SEWER WET WEATHER CAPACITY	2,043,450	3,231,094	100.0%	3,231,094
2008 SEWER MAIN IMPROVEMENTS	1,553,120	2,323,146	100.0%	2,323,146
2010 SANITARY SEWER OVERFLOW COMPLIANCE	743,848	1,062,795	100.0%	1,062,795
2010 SANITARY SEWER OVERFLOW COMPLIANCE	947,563	1,353,858	100.0%	1,353,858
2010 SANITARY SEWER OVERFLOW COMPLIANCE	1,340,644	1,915,483	100.0%	1,915,483
2010 SANITARY SEWER OVERFLOW COMPLIANCE	803,039	1,147,365	100.0%	1,147,365
2011 SANITARY SEWER OVERFLOW COMPLIANCE	1,120,037	1,561,970	100.0%	1,561,970
2012 HWY 101 WASTERWATER LINE SUPPORT	94,123	127,915	100.0%	127,915
2012 HWY 101 WASTERWATER LINE SUPPORT	7,042	9,571	100.0%	9,571
2012 SANITARY SEWER OVERFLOW COMPLIANCE	2,488,072	3,381,315	100.0%	3,381,315
2013 SANITARY SEWER OVERFLOW COMPLIANCE	1,123,902	1,486,950	100.0%	1,486,950
2013 SCADA SYST UPGR- BYPASS PUMPER/AUTO PUMP	10,876	14,389	100.0%	14,389
2013 SCADA SYSTEM UPGRADE	9,360	12,383	100.0%	12,383
2013 SCADA SYSTEM UPGRADE	5,093	6,738	100.0%	6,738
2015 ACCELERATED COLLECTION SYSTEM REHAB PROG	1,865,262	2,294,535	100.0%	2,294,535
2015 SANITARY SEWER OVERFLOW COMPLIANCE PROGR	2,181,574	2,683,642	100.0%	2,683,642
2016 SANITARY SEWER OVRFLW COMPL PROG FY16	2,643,814	3,211,189	100.0%	3,211,189
2016 ACCELERATED COLLECTN SYS REHAB PRG FY16	654,584	795,061	100.0%	795,061
2017 SANITARY SEWER OVRFLW COMPL PROG FY17	1,496,983	1,761,051	100.0%	1,761,051
2017 ACCELERATED COLLECTN SYS REHAB PRG FY17	450,909	530,449	100.0%	530,449
2018 SANITARY SEWER OVERFLOW COMPLIANCE-FY18	2,034,001	2,325,947	100.0%	2,325,947
2019 SANITARY SEWER OVERFLOW COMPLIANCE-FY19	1,421,148	1,597,214	100.0%	1,597,214
2020 SANITARY SEWER OVERFLOW COMPLIANCE FY20	2,457,358	2,703,601	100.0%	2,703,601
2021 La Colina Force Main #1 Rehab	445,827	456,901	100.0%	456,901
2021 Sanitary Sewer Overflow Compliance-FY21	2,500,854	2,562,969	100.0%	2,562,969
2021 Manhole Rehab FY21	108,377	111,068	100.0%	111,068
Lift Station				
1987 LA COLINA LIFT STATION	\$0	\$0	100.0%	\$0
1995 BRAEMAR LIFT STATION	402,067	930,974	100.0%	930,974
1996 VIA LUCERO WET WELL UPGRADE	84,239	187,586	100.0%	187,586
1999 BRAEMAR LIFT STATION	330,367	689,712	100.0%	689,712
2005 WW LIFT STATION REHAB	244,511	408,997	100.0%	408,997
2009 SAN MARCOS LIFT STATION	49,127	72,717	100.0%	72,717
2009 SAN MARCOS LIFT STATION	178,378	264,033	100.0%	264,033
2009 SAN MARCOS LIFT STATION	197,775	292,746	100.0%	292,746
2009 SAN MARCOS LIFT STATION	24,142	35,735	100.0%	35,735
2009 LIFT STATION REHABILITATION	95,532	141,406	100.0%	141,406
2009 LIFT STATION REHABILITATION	59,478	88,039	100.0%	88,039
2009 LIFT STATION REHABILITATION	124,071	183,649	100.0%	183,649
2009 LIFT STATION REHABILITATION	176,025	260,551	100.0%	260,551
2013 SCADA SYST UPGR- LIFT STATION	3,776	4,995	100.0%	4,995
2013 SCADA SYST UPGR- CHOPPER PUMP	1,797	2,378	100.0%	2,378
2019 WW LIFT STATION REHABILITATION FY14-FY19	2,460,189	2,764,984	100.0%	2,764,984
2021 Braemar Lift Station Rehab	194,891	199,732	100.0%	199,732
Total Existing Assets	\$54,637,033	\$104,338,696		\$104,338,696
Total 2021				41,358
Total Existing CC (\$ / Eq. Mtr.)				\$2,522.82

Notes

[1] - Based on ENR 20 City Average December Values

[2] - Future projects from City of Santa Barbara capital improvement plan

City of Santa Barbara
Wastewater Capacity Charge
Treatment
Exhibit 4

		Book	Cost ^[1]	Connection	Connection
Year		Value	2022\$	Fee Eligible	Fee Cost
Existing Assets					
1978	PRIMARY SEDIMENTATION	\$0	\$0	100.0%	\$0
1990	EL ESTERO FECL	11,104	29,735	100.0%	29,735
2008	REHAB AERATION BASINS	821,082	1,228,168	100.0%	1,228,168
2009	CONSTRUCT REPLACMNT DIGESTER MIXING SYS	327,481	484,734	100.0%	484,734
2009	CONSTRUCT REPLACMNT DIGESTER MIXING SYS	705,463	1,044,220	100.0%	1,044,220
2009	CONSTRUCT REPLACMNT DIGESTER MIXING SYS	300,030	444,102	100.0%	444,102
2009	CONSTRUCT THICKENED SLUDGE PUMP STATION	462,038	683,905	100.0%	683,905
2009	CONSTRUCT THICKENED SLUDGE PUMP STATION	971,056	1,437,349	100.0%	1,437,349
2009	CONSTRUCT THICKENED SLUDGE PUMP STATION	302,158	447,252	100.0%	447,252
2009	CONSTRUCT THICKENED SLUDGE PUMP STATION	57,518	85,138	100.0%	85,138
2009	REHAB AERATION BASINS	102,002	150,982	100.0%	150,982
2009	REHAB AERATION BASINS	99,046	146,607	100.0%	146,607
2009	INSTALL FOURTH INFLUENT PUMP	554,074	820,136	100.0%	820,136
2010	SECONDARY PROCESSES	85,192	121,720	100.0%	121,720
2010	DIGESTER #1 SURFACE SEALING SYSTEM	22,482	32,121	100.0%	32,121
2010	SLUDGE HOLDING TANK CONCRETE LID	21,264	30,382	100.0%	30,382
2013	CONST OF THE HEADWORKS SCREENING REPL PR	1,947,495	2,576,584	100.0%	2,576,584
2013	CONST OF THE HEADWORKS SCREENING REPL PR	2,129,295	2,817,109	100.0%	2,817,109
2013	REHAB HEADWORKS AIR SCRUBBERS	89,444	118,337	100.0%	118,337
2013	REHAB HEADWORKS AIR SCRUBBERS	239,434	316,777	100.0%	316,777
2013	REHAB HEADWORKS AIR SCRUBBERS	21,373	28,276	100.0%	28,276
2013	ASSET MAINT MGMT SYSTEM AT EL ESTERO	74,579	98,670	100.0%	98,670
2015	EL ESTERO FATS OIL & GREASE (FOG)	506,084	622,554	100.0%	622,554
2015	REPLACE 3 EXISTING INFLUENT PUMPS	1,497,144	1,841,697	100.0%	1,841,697
2017	EL ESTERO FOG PHASE 2	718,134	844,814	100.0%	844,814
2019	REHAB AERATION BASINS	28,886,484	32,465,250	100.0%	32,465,250
2019	EL ESTERO STRAT PLAN (WW TREATMT PLANT)	3,198,754	3,595,050	100.0%	3,595,050
2019	REHAB AERATION BASINS	1,576,613	1,771,940	100.0%	1,771,940
2019	REHAB AERATION BASINS DEBT SVC INTEREST	784,373	881,549	100.0%	881,549
2019	EL ESTERO ELECTRICAL UPGR FY19-	2,617,863	2,942,192	100.0%	2,942,192
2020	EEWRC - Aeration Gate Mods	316,126	347,803	100.0%	347,803
2021	El Estero Digester Dome Replacement	132,652	135,947	100.0%	135,947
2021	El Estero Scrubber Replacement	78,885	80,845	100.0%	80,845
2021	EEWRC Chlorine Chamber Rehab	78,681	80,635	100.0%	80,635
2021	El Estero Secondary Concrete and Piping	294,705	302,025	100.0%	302,025
Total Existing Assets		\$50,030,107	\$59,054,605		\$59,054,605
Total 2021					41,358
Total Existing CC (\$ / Eq. Mtr.)					\$1,427.89

Notes

[1] - Based on ENR 20 City Average December Values

[2] - Future projects from City of Santa Barbara capital improvement plan

City of Santa Barbara
Wastewater Capacity Charge
General
Exhibit 5

Page 1 of 2

Year		Book Value	Cost ^[1] 2022\$	Connection Fee Eligible	Connection Fee Cost
Existing Assets					
LAND					
1956	BRAEMAR	\$7,926	\$7,926	100.0%	\$7,926
1957	LA COLINA	1,485	1,485	100.0%	1,485
1975	EL ESTERO TREATMENT PLANT	193,356	193,356	100.0%	193,356
1975	EL ESTERO TREATMENT PLANT	1,001,217	1,001,217	100.0%	1,001,217
1976	EL ESTERO TREATMENT PLANT	76,813	76,813	100.0%	76,813
1976	EL ESTERO TREATMENT PLANT	353,400	353,400	100.0%	353,400
1976	EL ESTERO TREATMENT PLANT	104,768	104,768	100.0%	104,768
1976	EL ESTERO TREATMENT PLANT	969,422	969,422	100.0%	969,422
1977	EL ESTERO TREATMENT PLANT	104,768	104,768	100.0%	104,768
1998	EL ESTERO LAND	692,037	692,037	100.0%	692,037
1999	EL ESTERO LAND	3,480	3,480	100.0%	3,480
BLDGs					
1978	BLDG CONFERENCE	\$0	\$0	100.0%	\$0
1978	BLDG MAINTENANCE	0	0	100.0%	0
1978	BLDG RESTROOM/LOCKER	0	0	100.0%	0
1978	BLDG SLUDGE HOLDING CONTROL	0	0	100.0%	0
1978	BLDG SLUDGE REMOVAL	0	0	100.0%	0
1978	BLDG SLUDGE HANDLINE	0	0	100.0%	0
1978	BLDG SUBSTATION A	0	0	100.0%	0
1978	BLOWER ROOM	0	0	100.0%	0
1978	DIGESTER & CONTROL BLDG	0	0	100.0%	0
1978	GRAVITATIONAL THICKENER	0	0	100.0%	0
1978	GRIT CHAMBER	0	0	100.0%	0
1978	PLANT ADM. CONSTRUCTION COST	0	0	100.0%	0
BLDG IMPROV					
1995	EL ESTERO PHONE SYSTEM	\$0	\$0	0.0%	\$0
1998	EL ESTERO DOOR REPLACEMENT	116,923	249,644	100.0%	249,644
2004	EL ESTERO EMERGENCY POWER	458,894	803,158	100.0%	803,158
2010	CREWS QUARTERS REMODEL	205,077	293,010	100.0%	293,010

City of Santa Barbara
Wastewater Capacity Charge
General
Exhibit 5

Page 2 of 2

Year		Book Value	Cost ^[1] 2022\$	Connection Fee Eligible	Connection Fee Cost
BLDG IMPROV					
1995	EL ESTERO PHONE SYSTEM	\$0	\$0	0.0%	\$0
1998	EL ESTERO DOOR REPLACEMENT	116,923	249,644	100.0%	249,644
2004	EL ESTERO EMERGENCY POWER	458,894	803,158	100.0%	803,158
2010	CREWS QUARTERS REMODEL	205,077	293,010	100.0%	293,010
EQUIPMENT					
1978	MOTOR CONTROL CENTER	\$0	\$0	100.0%	\$0
2013	EL ESTERO EQUIP. REHAB	13,074	17,297	100.0%	17,297
2013	EL ESTERO EQUIP. REHAB	91,601	121,190	100.0%	121,190
2013	EL ESTERO EQUIP REHAB	36,831	48,728	100.0%	48,728
2013	EL ESTERO EQUIP REHAB	136,756	180,932	100.0%	180,932
2019	EL ESTERO EQUIPMENT REHAB FY14-FY19	2,810,760	3,158,987	100.0%	3,158,987
2018	PUMP VFD REPLACEMENT EQUIP	917,372	1,049,045	100.0%	1,049,045
2015	2015 FORD F350 4X2 REG CAB W/CRANE	34,455	42,385	100.0%	42,385
2017	INFOMASTER SEWER SOFTWARE	2,000	2,353	100.0%	2,353
MISC					
1978	PLANT ARCHITECT'S FEES	\$0	\$0	100.0%	\$0
1985	MESA CLIFF MOD.	22,045	66,694	100.0%	66,694
1998	GARDEN STREET EXTENSION	190,341	406,400	100.0%	406,400
2010	PARKING LOT MODIFICATION	21,336	30,485	100.0%	30,485
2010	SECURITY FENCE REPLACEMENT	53,893	77,001	100.0%	77,001
2018	ACCELERATED COLL SYSTEM - FY18	125,104	143,060	100.0%	143,060
Total Existing Assets		\$8,745,134	\$10,199,040		\$10,199,040
Total 2021					41,358
Total Existing CC (\$ / Eq. Mtr.)					\$246.60

Notes

City of Santa Barbara
Wastewater Capacity Charge
Debt Service Schedule
Exhibit 6

<i>Principal</i>							<i>Interest</i>						
Fiscal Year	2004/16 Revenue Bond	CWSRF Loan - FOG	CWSRF Loan - Headworks	Aeration Loan	Future SRF - Electrical Project	Total	Fiscal Year	2004/16 Revenue Bond	CWSRF Loan - FOG	CWSRF Loan - Headworks	Aeration Loan	Future SRF - Electrical Project	Total
2023	\$880,000	\$76,466	\$257,858	\$1,418,317	\$0	\$2,632,642	2023	\$277,800	\$21,695	\$84,123	\$534,828	\$0	\$918,445
2024	925,000	77,843	264,563	1,445,265	0	2,712,671	2024	233,800	20,318	77,418	507,880	0	839,417
2025	970,000	79,244	271,441	1,472,726	0	2,793,410	2025	187,550	18,917	70,540	480,420	0	757,427
2026	1,025,000	80,670	278,499	1,500,707	0	2,884,876	2026	139,050	17,491	63,482	452,438	0	672,461
2027	1,075,000	82,122	285,740	1,529,221	0	2,972,083	2027	87,800	16,039	56,241	423,925	0	584,005
2028	1,120,000	83,600	293,169	1,558,276	0	3,055,045	2028	44,800	14,560	48,812	394,869	0	503,042
2029	0	85,105	300,791	1,587,883	0	1,973,780	2029	0	13,056	41,190	365,262	0	419,508
2030	0	86,637	308,612	1,618,053	0	2,013,302	2030	0	11,524	33,369	335,092	0	379,985
2031	0	88,197	316,636	1,648,796	0	2,053,628	2031	0	9,964	25,345	304,349	0	339,659
2032	0	89,784	324,868	1,680,123	0	2,094,775	2032	0	8,377	17,113	273,022	0	298,512
2033	0	91,400	333,315	1,712,045	0	2,136,761	2033	0	6,761	8,666	241,100	0	256,527
2034	0	93,046	0	1,744,574	0	1,837,620	2034	0	5,115	0	208,571	0	213,687
2035	0	94,720	0	1,777,721	0	1,872,442	2035	0	3,441	0	175,424	0	178,865
2036	0	96,425	0	1,811,498	0	1,907,923	2036	0	1,736	0	141,647	0	143,383
2037	0	0	0	1,845,916	0	1,845,916	2037	0	0	0	107,229	0	107,229
2038	0	0	0	1,880,989	0	1,880,989	2038	0	0	0	72,157	0	72,157
2039	0	0	0	1,916,728	0	1,916,728	2039	0	0	0	36,418	0	36,418
2040	0	0	0	0	0	0	2040	0	0	0	0	0	0
2041	0	0	0	0	0	0	2041	0	0	0	0	0	0
	\$5,995,000	\$1,205,261	\$3,235,491	\$28,148,839	\$0	\$38,584,590		\$970,800	\$168,993	\$526,300	\$5,054,632	\$0	\$6,720,725

Notes

City of Santa Barbara
Wastewater Capacity Charge
Summary
Exhibit 7

	Existing			
Component	Total	Equivalent Meters	Buy-in (\$ / Eq. Mtr.)	Total Capacity Charge (\$ / Eq. Mtr.)
Assets				
Collection	\$104,338,696	41,358	\$2,523	\$2,523
Treatment	59,054,605	41,358	1,428	1,428
General	10,199,040	41,358	247	247
CWIP	0	41,358	0	0
CIP - FY 2022	10,422,677	41,358	252	252
Total Assets	\$173,592,341		\$4,449	\$4,449
Debt Service				
2004/16 Revenue Bond	(\$5,995,000)	41,358	(\$145)	(\$145)
CWSRF Loan - FOG	(1,205,261)	41,358	(29)	(29)
CWSRF Loan - Headworks	(3,235,491)	41,358	(78)	(78)
Aeration Loan	(28,148,839)	41,358	(681)	(681)
FY 2022 SRF	0	41,358	0	0
Total Debt Obligations	(\$38,584,590)		(\$933)	(\$933)
Cash Reserves	\$9,425,271	41,358	\$228	\$228
Total CC (\$ / Eq. Mtr.)	\$135,007,751		\$3,744	\$3,744
Current Fee			\$3,885	\$3,885
\$ Change			(\$141)	(\$141)

Notes

Capacity Charge				
Meter Size	Weighting Factor	Present CC (\$ / Eq. Mtr.)	Calculated CC (\$ / Eq. Mtr.)	\$ Difference
5/8"	1.00	\$3,885	\$3,744	(\$141)
3/4"	1.50	5,828	5,616	(212)
1"	2.50	9,713	9,361	(352)
1 1/2"	5.00	19,427	18,721	(706)
2"	8.00	31,082	29,954	(1,128)
3"	15.00	58,280	56,164	(2,116)
4"	25.00	97,133	93,607	(3,526)
6"	50.00	194,265	187,214	(7,051)
8"	80.00	310,824	299,542	(11,282)
10"	115.00	446,810	430,592	(16,218)