

TO THE PORT COSTA SANITARY COMMISSION
AND THE BOARD OF DIRECTORS,
CROCKETT COMMUNITY SERVICES DISTRICT

FROM: Department Manager

SUBJECT: PORT COSTA Sewer Use Charge Study, FY 2023/2024

INTRODUCTION

A full Sewer Use Charge study report is performed when the Crockett Community Services District needs to consider raising the Sewer Use Charge fee. This report summarizes results of current operating & maintenance and capital costs to the Port Costa Sanitary Department of the Crockett Community Services District. The costs expected over the next fiscal year (July 1, 2023 through June 30, 2024) are predicted to provide a basis for determination of a rate structure for Sewer Use Charge for the coming year.

DISTRICT REORGANIZATION

The Crockett Community Services District was formed in July, 2006, merging the functions of the Crockett-Valona Sanitary District with the functions of two recreation organizations and Port Costa's sanitary sewer agency. This Sewer Use Charge study report is concerned only with sewer service provided in the town of Port Costa.

BACKGROUND

The small, unincorporated town of Port Costa has a population of 190 people as of the 2020 census. There are 113 properties within Crockett Community Services District boundaries, of which 85 are receiving sewer service. There is one additional property outside of the District boundaries that is also being served by Port Costa Sanitary Department. The average daily dry weather flow rate was approximately 18,000 gallons in 2022.

Port Costa Sanitary Department pays for operation and maintenance, capital replacements, capital improvements, and long-term debt service with revenue collected from the Sewer Use Charge. This is the sole source of revenue, except for rare permit and capacity fees.

This review will determine the funding needed for operating, maintaining, and improving the Department's sewerage facilities, along with the available funding source(s) and revenue during FY 2023/24.

CURRENT COSTS

A review of revenue and expenditures during FY 2022/23 reveals the revenue and expenses (partially predicted) shown in TABLE 1.

(Cost Recovery - Recreation Dept repayment for use of PCSAN checks) \$ 92,331

TABLE 1

<u>PROJECTED DISTRICT, FY 2022/23</u>		
<u>REVENUE</u>		
	Sewer Use Charges	\$ 299,278
	Annexation Charge	0
	Grants	0
	Interest	\$600
	Permit Fees	\$90
	Cost Recovery/Non-Operating	\$0
TOTAL REVENUE		\$299,968

<u>EXPENSES</u>		
	Sewage Treatment	\$ 71,444
	Sewage Collection	34,962
	Administration/General	45,000
	Insurance	4,500
	County Charges	1000
	Capital Projects	0
	Operating Reserve	29,000
	Debt Svc (Principle&Interest)	46,745

TOTAL EXPENDITURES \$232,651

CY NET O&M&R \$ 67,317

PY Operating Reserve carried forward \$ 107,146

FUTURE OPERATING REQUIREMENTS

This analysis is focused on the costs of operating and maintaining sewerage facilities in Port Costa for the fiscal year 2023/24.

State, regional, and county regulatory agencies impose new requirements on sanitary agencies from the 1990's to the present. Effective December 1, 2014, a five-year National Pollutant Discharge Elimination discharge permit (NPDES) was issued to Port Costa Sanitary Department by the Regional Water Quality Control Board (RWQCB). This Discharge permit further expanded these requirements. The current discharge permit became effective February 1, 2019 and is set to expire January 31, 2024. Work is in process to obtain the next discharge permit.

In 2003, exceedances of permit limits resulted in mandatory upgrades to the treatment plant to eliminate discharge of pollutants. The upgrades were completed by Contra Costa County in 2007 at the cost of \$1,035,000. The Regional Water Quality Control Board certified the upgrade. 34 exceedances occurred throughout the years 2013 through 2022. The exceedances have since been attributed primarily to sludge buildup in the primary treatment (septic tank) and disturbance of the biological layer (schmutzdecke) of the sand filter beds. Heavy cleaning, inspection, and maintenance of the septic tank was completed in early 2020. There was one permit exceedance of Enterococcus in February 2023, this was attributed to high flow due to wet weather storm conditions, reducing detention time. Following the heavy cleaning of the septic tank, to this date, no exceedances have been attributed to septic tank condition. Treatment plant operations have been accomplished by contract operators after Crockett Community Services District took ownership in 2008. The current contract is with Valley Operators LLC. Maintenance, repair, and replacement of specific components (pumps/generator/controls etc.) is performed by outside contractors.

Contra Costa County left no inventory of the system, inspection data, repair records, or condition assessment, and performed no known preventive maintenance on the system. The District anticipated significant costs to bring the collection system up to current standards of reliability within as short a timeframe as possible. The small tax base and constrained revenue stream available for capital expenditures has restricted the ability to undertake desired projects. A review of current and forecasted operating requirements indicates that next year's operating budget should include at least the following items, as shown in TABLE 2:

1. Sewage Treatment:

The treatment plant facilities are operated and maintained by Valley Operators LLC. Chemicals are supplied by Sierra Chemical Company. Pre-treatment occurs in an 86,000 gallon (100% capacity) septic tank. Septic tank cleaning is ongoing, it is estimated that the top (scum) layer will require removal two to three times per year based on operator request. The bottom layer (sludge) is regularly profiled by Valley Operators LLC. It is imperative that sludge is removed prior to the sludge

level reaching depth and concentration deemed detrimental to the removal of suspended solids which can carry-over to secondary treatment, causing damage to the plant piping, pumps, sand filter beds, and ultimately, to the effluent quality. Removal of sludge is an impactful event that will require weeks to dewater and stirring up the sludge can adversely affect the treatment plant. No attempt to remove sludge should be made unless contingency plans are in place. Requests for cleaning are initiated by Valley Operators LLC. The costs associated with treatment for the next fiscal year are budgeted at \$85,000 excluding loan principle.

2. Sewage Collection:

The collection system consists of approximately 7,108 LF of 4" to 10" sewer piping. There are no lift stations. Wastewater flows by gravity from residential, mixed-use, and commercial users via the collection system. The wastewater then flows by gravity, through primary treatment (septic tank) to secondary treatment at the treatment plant. Port Costa Sanitary Department and Crockett Sanitary Department have benefited from inclusion in the Crockett Community Services District's Sanitary Sewer Management Plan. Bi-annual audits of the Sanitary Sewer Management Plan are performed by the Crockett Community Services District.

The cost for the collection system operations, maintenance, and repairs are estimated at \$38,847 for the coming year. The collection system should have few other costs during FY 2023/24, absent emergency or unforeseen cleaning or repair. CCTV inspection could identify areas or points forcing immediate need for repair or replacement.

3. Administration/General expenses:

Wages are paid by Port Costa Sanitary Department to the General Manager, Department Manager, Administrative Services Manager, and Assistant District Secretary. Personnel costs are divided between O&M&R and capital projects, as appropriate. Sanitary Commissioners and District Board members are unpaid for meeting attendance.

Administrative (O&M) salary, professional services, office costs and miscellaneous expenses such as membership dues, printing, vehicle, etc. are budgeted at \$55,000.

4. Capital improvements budget:

The Crockett Community Services District maintains records that divide General Fund 3425 into an operating account and a capital account. Monies budgeted for capital projects will be carried over if spending is delayed, therefore capital expenditures may exceed the budget appropriation for a given year.

As a result of the 2007 plant upgrade project, the Crockett Community Services District inherited a debt burden of \$1,035,000 from Contra Costa County. This budget includes \$75,000 for debt service, principle, and interest to CVSAN.

No additional long-term debt is anticipated in FY 2023/24. Port Costa Sanitary Department was able to refinance one of the existing loans in 2014 and the second loan in 2015. This reduced the interest rate on all debts burdening Port Costa. A third inter-department loan of \$150,000 was added in 2020 and is included in the debt service repayment schedule. The final interest payment of \$3,375 was paid in December 2022. Ongoing repayments to CVSAN will be to principle. Debt is paid 1.5% over the LAIF interest rate.

5. Contingencies:

Wastewater agencies normally keep an operating reserve of between 10% and 50% of annual revenue requirements. Most agencies operate in the 20% to 40% range. Events such as El Nino '98 and storm events in the winter of 2016/17 have proven the necessity of a contingency fund.

Unfortunately, the Port Costa facilities were inherited with no operating reserves. On the contrary, this budget acknowledges a pre-existing debt of \$24,233 to the Crockett Sanitary Department. The budget can therefore provide only \$23,000 (10%) for operating contingencies. An amount of \$4,000 was contributed to the treatment plant Capital Reserve, \$10,000 for the septic tank reserve, \$5,000 for RWQCB operating reserves and \$10,000 toward the discharge permit reserve in 2023/2024.

TABLE 2
PROJECTED DISTRICT BUDGET DETAIL, FY 2023/24

REVENUE / ASSETS (Including roll-forward / Excluding Sewer Use Charges)

Carry-over unallocated cash	\$ 117,380
Prior Year Contingency Surplus	19,766
Tank Cleaning/Rehabilitation Reserve	30,000
Discharge Permit Reserve	30,000
TREATMENT PLANT Reserve	12,000
RWQCB Operating Reserve	15,000
Loans/Grants	0
Permit Fees	180
Capacity Charges/Annexation Charges	0
Annexation Interest	0
Cost Recovery	<u>200</u>
TOTAL REVENUE	\$224,526

EXPENSES / LIABILITIES

Sewage Collection	\$ 38,847
Sewage Treatment	108,400
Administration/General	55,000
Capital Replacement Projects	25,000
O&M Contingencies	23,000
Septic Tank Rehabilitation/Cleaning Reserve	10,000
TREATMENT PLANT Reserve	4,000
Discharge Permit Reserve	10,000
RWQCB Operating Reserve	5,000
Rate Stabilization Reserve	53,658
Debt service	75,000
Pre-Existing Debt	24,233
TOTAL EXPENDITURES	\$432,138
APPARENT DEFICIT	\$207,612

This budget of \$432,138 for FY 2023/24 is about 11% lower than what was budgeted in FY 2022/23. Annual Sewer Use Charge increases are generally recommended to build operating reserves to cover ongoing and increasing operating expenses. However for this fiscal year, Port Costa Sanitary Department staff recommends that Port Costa Commission maintains the prior year Sewer Use Charge as written in existing Resolution 22-3. Rates are written in Exhibit A of Resolution 22-3.

PROJECTED REVENUE

The preceding review of next year's budget requirements indicates that \$432,138 will be needed. Sources of this needed revenue are primarily sewer service charges.

The preceding expense and revenue information is summarized in TABLE 2. As can be seen from TABLE 2 there is an apparent deficit of \$207,612. A deficit is an annual occurrence and can be covered by a Sewer Use Charge increase, as described below.

PROPOSED SEWER USE CHARGE RATE

The sewer services to be provided by Port Costa Sanitary Department are determined to include 72 single family dwellings (SFR), 7 duplex/apts, 4 mixed-use properties (containing 26 apartments) and 3 commercial customers. A total of 86 connected properties.

Since 1964, Contra Costa County had charged Port Costa properties for sewer service based on a schedule of multipliers. The categories “single-family residence” and “apartment” have always been charged the same rate. In 2008, a rate analysis was conducted by a Contra Costa County consultant. That methodology was labeled inequitable. That study proposed an alternate methodology that is impracticable when applied to a small community. Secondly, that alternate methodology was inconsistent with that used by Crockett Sanitary Department. In the interest of equitable rates, Crockett Sanitary Department adopted a methodology in 1992 which is based on the actual wastewater flow from each property or category. The smaller the town, the more important this methodology becomes. The Crockett methodology is now being used in Port Costa.

Wet weather water data is used to calculate average sewer use by residents to discount dry weather irrigation water, which does not enter the sewer system. Outliers in the data were not considered in the calculation. Outliers were identified utilizing Interquartile Range calculations (IQR). 37 Single Family Residences (SFR) were IQR qualified and were found to contribute an average of 4589 Cu. ft. per year to the sewer system. Each apartment is also assumed to contribute 4589 Cu. ft. feet per year to the sewer system.

Non-residential, commercial, and mixed-use properties are charged an equitable share based on water consumption during a previous 12-month period. A minimum charge is set reflecting the number of apartments present. In no case is the commercial rate less than the rate for a single apartment.

The sewer services provided by Crockett Community Services District are tabulated in TABLE 3. The second column in TABLE 3 indicates the relative flow rating ("use factor") of the various types of users. The last column is the product of the number of units and the use factor.

TABLE 3
INVENTORY OF EXISTING CONNECTIONS - 2022

<u>EQUIVALENT TYPE OF OCCUPANCY/USE</u>	<u>NUMBER OF UNITS</u>	<u>USE FACTOR</u>	
		<u>PER UNIT</u>	<u>UNITS</u>
Single family dwelling	72	1.00	72.00
Apartment	14	1.00	14.00
Non-residential property	3	varies	3.09
Mixed-use property	4	varies	<u>38.48</u>
	Discharge Units		127.58

In order to provide sufficient revenue for the O&M&R and capital budget, Sewer Use Charge would be determined as follows:

OPERATING DEFICIT	\$299,169		
	-----	=	\$2,345 /UNIT
NO. DISCHARGE UNITS	127.58		

By this method, the recommended annual Sewer Use Charge per single family residence is \$2,345. The recommended annual Sewer Use Charge per apartment is also \$2,345.

The charges for other properties would vary with water consumption in proportion to the Crockett Community Services District standard for residential uses. The recommendation is to maintain the 2022/23 Sewer Use Charge set in Proposition 218, at a rate of \$2,345 plus \$50.31 per 100 cubic feet of water consumption in excess of 4662 cubic feet per year.

BUDGETARY RESERVES

A budget line item intends to build a Port Costa septic tank heavy cleaning reserve of \$50,000, to be built up over 5 years. This should provide funding to clean the septic tank as needed. The most recent major cleaning, completed in early 2020, cost approximately \$230,000. This major cleaning all

owed for structural inspection and full replacement of the baffle system. A National Pollutant Discharge Elimination System (NPDES) discharge permit is due every five years, it is recommended to continue to develop a reserve of \$40,000 to pay for permit reissuance application process. It is also recommended to maintain a reserve for potential penalties imposed by the Regional Water Quality Control Board. Excess operating revenue (if any) will roll over for contingency funds and/or remain in a rate stabilization reserve that exists to smooth out fluctuations in rates. Such excess revenue could also be allocated to sewer repairs, capital improvements or debt service, as required.

It is recognized that this budget maintains insufficient capital reserves to respond to unanticipated system failures or emergencies, this budget has an inadequate contingency fund. This budget is calculated to provide adequately for regular collection system maintenance, WWTP operation, expected costs due to regulatory permitting, and repayment of outstanding debt to the Crockett Sanitary Department. Specific collection system repairs or replacement projects are not anticipated in this budget, CCTV inspection has not been authorized, this eliminates the possibility of estimating potential project costs. High costs to ratepayers is recognized as a burden, this burden is a result of the low number of residential and business customers sharing the costs of an expensive operation.

RECOMMENDATION

It is recommended to perform a current and total closed-circuit television (CCTV) inspection of the collection system in order to plan and budget for improvement of the collection system. 334 linear feet of sewer was CCTV'd last year. There was no system rehabilitation on the collection system last year, cost estimates do not exist due to an incomplete knowledge of the system. Planned future improvement will reduce the potential for unanticipated expense. Costs to perform emergency work generally exceed the costs to perform planned work. Improvement at the treatment plant is anticipated to involve relatively simplistic items such as chemical feed pumps etc.

Port Costa Sanitary Department continues regular cleaning of the collection system to maintain efficient flow and to prevent sanitary sewer overflows (SSO's). It appears that ongoing increases in Sewer Use Charge will be required to fund operating costs and debt service alone, this does not necessitate annual increases as long as year over year projected expenses remain stable. Ongoing operational costs are not predicted to diminish. Therefore, we must be prepared to increase Sewer Use Charge rates over time. Recommendation of funding for collection system rehabilitation is difficult to ascertain without full inspection. Partial inspection would be beneficial but that would allow for future unplanned or emergency expenditures.

The General Manager, Department Manager, Administrative Services Manager, and Assistant District Secretary are the only positions receiving payroll in Port Costa Sanitary Department. All O&M&R services are contracted to outside contractors that regularly engage in the specific fields of work. This is believed to be the most economical and efficient method to complete work in a safe, professional, and timely manner. There is no recommendation to alter this approach.

Revenue raised through this unadjusted Sewer Use Charge would be \$299,169. There will be a slight net revenue decrease of \$109 from previous years Sewer Use Charge revenue, this is 0.04%, a value of -\$1.27 per residential unit for the fiscal year. The net revenue decrease is due to slightly lower commercial water use.

It is therefore recommended that this Sewer Use Charge study report be accepted by the Board of Directors and that sewer use charges remain the same at \$2,345 per single family residence, and equivalent unit for FY 2023/24 as a source of revenue to balance the budget.

TABLE 4 sets forth the actual Sewer Use Charge anticipated for each property served by Port Costa Sanitary Department.

Respectfully submitted,


James Barnhill
Port Costa Department Manager
April 22, 2023

Sewer Use Charge Study
 FY 2023/24

TABLE 4

RECOMMENDED SEWER SERVICE CHARGES FOR THE TAX ROLL

A	Parcel No.	Levy Code	Fund	Revenue	Levy Amount
A	368132002	GB	3425	9796	2,345.00
A	368132003	GB	3425	9796	2,345.00
A	368132004	GB	3425	9796	2,345.00
A	368132005	GB	3425	9796	2,345.00
A	368132007	GB	3425	9796	2,345.00
A	368132012	GB	3425	9796	2,345.00
A	368132013	GB	3425	9796	2,345.00
A	368132014	GB	3425	9796	2,345.00
A	368132015	GB	3425	9796	2,345.00
A	368132016	GB	3425	9796	2,345.00
A	368132017	GB	3425	9796	2,345.00
A	368132020	GB	3425	9796	2,345.00
A	368132022	GB	3425	9796	2,345.00
A	368132023	GB	3425	9796	2,345.00
A	368132024	GB	3425	9796	2,345.00
A	368132025	GB	3425	9796	2,345.00
A	368132026	GB	3425	9796	2,345.00
A	368133003	GB	3425	9796	2,345.00
A	368133007	GB	3425	9796	2,345.00
A	368133010	GB	3425	9796	2,345.00
A	368133012	GB	3425	9796	2,345.00
A	368134003	GB	3425	9796	4,690.00
A	368134004	GB	3425	9796	4,690.00
A	368134011	GB	3425	9796	2,345.00
A	368134012	GB	3425	9796	4,690.00
A	368135004	GB	3425	9796	2,345.00
A	368135005	GB	3425	9796	2,345.00
A	368135008	GB	3425	9796	2,345.00
A	368135009	GB	3425	9796	2,345.00
A	368135012	GB	3425	9796	2,345.00
A	368135013	GB	3425	9796	2,345.00
A	368135014	GB	3425	9796	2,345.00
A	368141003	GB	3425	9796	2,345.00
A	368141004	GB	3425	9796	4,690.00
A	368141005	GB	3425	9796	2,345.00
A	368141009	GB	3425	9796	2,345.00
A	368142006	GB	3425	9796	2,345.00
A	368142007	GB	3425	9796	2,345.00
A	368142008	GB	3425	9796	2,345.00
A	368143001	GB	3425	9796	4,690.00
A	368143003	GB	3425	9796	2,345.00
A	368143004	GB	3425	9796	2,345.00

Sewer Use Charge Study
FY 2023/24

A	368143005	GB	3425	9796	2,345.00
A	368143006	GB	3425	9796	2,345.00
A	368143007	GB	3425	9796	2,345.00
A	368144003	GB	3425	9796	2,345.00
A	368144004	GB	3425	9796	4,690.00
A	368144012	GB	3425	9796	4,690.00
A	368145001	GB	3425	9796	2,345.00
A	368145002	GB	3425	9796	2,345.00
A	368145003	GB	3425	9796	2,345.00
A	368145006	GB	3425	9796	2,345.00
A	368145007	GB	3425	9796	2,345.00
A	368145008	GB	3425	9796	2,345.00
A	368145009	GB	3425	9796	2,345.00
A	368145010	GB	3425	9796	2,345.00
A	368145014	GB	3425	9796	2,345.00
A	368145015	GB	3425	9796	2,345.00
A	368145019	GB	3425	9796	2,565.00
A	368145024	GB	3425	9796	2,345.00
A	368145025	GB	3425	9796	2,345.00
A	368145027	GB	3425	9796	23,138.00
A	368146001	GB	3425	9796	2,345.00
A	368146002	GB	3425	9796	2,345.00
A	368146003	GB	3425	9796	2,345.00
A	368146007	GB	3425	9796	2,345.00
A	368146010	GB	3425	9796	2,345.00
A	368146014	GB	3425	9796	2,345.00
A	368146017	GB	3425	9796	2,345.00
A	368146021	GB	3425	9796	2,345.00
A	368146022	GB	3425	9796	2,345.00
A	368146023	GB	3425	9796	2,345.00
A	368146024	GB	3425	9796	2,345.00
A	368146025	GB	3425	9796	2,345.00
A	368147004	GB	3425	9796	20,623.00
A	368147005	GB	3425	9796	11,725.00
A	368147006	GB	3425	9796	34,758.00
A	368148002	GB	3425	9796	2,345.00
A	368148003	GB	3425	9796	2,345.00
A	368148004	GB	3425	9796	2,345.00
A	368148005	GB	3425	9796	2,345.00
A	368148013	GB	3425	9796	2,345.00
A	368148014	GB	3425	9796	2,345.00
A	368148015	GB	3425	9796	2,345.00
A	368148018	GB	3425	9796	2,345.00

		Assessment on Tax Roll			296,824.00
<u>A</u>	<u>354290004</u>	<u>GB</u>	<u>3425</u>	<u>9796</u>	<u>direct bill</u> 2,345.00
		Total SUC Revenue			299,169.00

DOC location =
L:\202107241608\share\L Drive\Sanitary_depts\Port Costa Sanitary\Prop218_SUC\SUC PCSAN 2023-2024\SUC Memo, Report & CALCS 23-24\23-24 rate study & calcs