

**WASTEWATER REVENUE STUDY  
SALSIPUEDES SANITARY DISTRICT**

**Table D.1 WDC**

for fiscal year 2023-2024 billing rates

**Wastewater Discharge Characteristics**

Customer Class	Average Customer Class Characteristics											
	Monthly Flow and Strength <sup>1</sup>				Annual Volume and Load <sup>2</sup>			All Users Annual Volume and Load				
	Flow	BOD	TSS	Volume	BOD	TSS	Billing	Volume	BOD	TSS		
Ccf	gpd	mg/l	mg/l	mg	mg/l	mg/l	Units <sup>3</sup>	Ccf <sup>1</sup>	mg	lbs	lbs	
Single Family	9.15	225	200	200	0.0821	137	137	501	54999	41.145	68629	68629
Multiple Family	6.86	169	200	200	0.0616	103	103	13	1070	0.801	1336	1336
Bakeries/Restaurants	34.00	836	1000	600	0.3052	2546	1527	2	816	0.610	5091	3055
Laundries	0.00	0	450	240	0.0000	0	0	0	0	0.000	0	0
All Other, Commercial	12.25	301	172	172	0.1100	158	158	4	588	0.440	631	631
Churches/Schools	21.31	524	172	172	0.1913	274	274	3	767	0.574	823	823
All Other, Institutional	0.00	0	172	172	0.0000	0	0	0	0	0.000	0	0
Fairgrounds	156.70	3854	172	172	1.4067	2018	2018	1	1880	1.407	2018	2018
<i>Annual Total &gt;</i>							524	60121	44.976	78528	76492	

**Notes:**

- Single family flow and strengths are based on City of Watsonville treatment plant cost allocation. Multiple family strength is same as single family, flow is based on 75% of single family. Strengths for all non-residential users, except Bakeries/Restaurants and Laundries, are based on City of Watsonville treatment plant cost allocation values. Strengths for Bakeries/Restaurants and Laundries are based on the 1988 Lawson report. Above information may be updated in the unshaded boxes above as required (after unprotecting the sheet). Conversion of flow in Ccf to gallons per day is based on a conversion factor of 748.1 gallons per Ccf.
- Commercial and institutional volumes are based on water meter readings. Fairgrounds volume is based on water meter readings. The annual pounds of BOD and TSS are based on the conversion formula shown in the example below:
 

	<i>BOD or TSS</i>			<i>Conversion</i>		<i>BOD or TSS</i>
<i>formula &gt;</i>	<u>mg/l</u>	x	<u>mg</u>	x	<u>Factor</u>	= <u>pounds</u>
<i>example &gt;</i>	200	x	0.0821	x	8.34	= 137
- Number of Billing Units are provided by the District. Ccf from water meter readings is provided by the City of Watsonville. Annual Volume from Fairgrounds water meter (most recent calendar year). Above information is annually entered into the shaded boxes above for determination of following fiscal year billing rates.

**WASTEWATER REVENUE STUDY  
SALSIPUEDES SANITARY DISTRICT**

**Table D.1 BD  
Budget Data**

for fiscal year 2023-2024 billing rates

**Required Revenue:** \$ 430,350

**District Costs attributed to trunk line used solely by Fairgrounds**

Operation & Maintenance		
Flushing	\$ 1,015	
(costs of contractor plus employee time, prior fiscal year)		
Videotaping	\$ 1,010	
(10% of costs, prior fiscal year)		
Subtotal, O & M		\$ 2,025
Replacement Reserve Accrual		\$ 4,655
(See Revenue Study Policies dated June 3, 2009)		
Total allocated to Fairgrounds		\$ 6,680

**District Costs attributed to users other than Fairgrounds**

Total Replacement Reserve		\$ 1
(from District depreciation schedule)		
Fairgrounds line depreciation amount	minus \$ 1,312	
(from District depreciation schedule)		
Total allocated to others		\$ (1,311)

**District Costs attributed to all users**

Collection		\$ 192,553
Treatment		\$ 232,428

**TOTAL DISTRICT EXPENSES** \$ 430,350

**WASTEWATER REVENUE STUDY  
SALSIPUEDES SANITARY DISTRICT**

**Table D.2** for fiscal year 2023-2024 billing rates  
**Cost of Service Based Rates**

**STEP 1. Revenue Required from Rates**

Req'd Revenue:	<b>\$ 430,350</b>			
	<u>Collection</u>			
	<u>O&amp;M</u>	<u>Reserves</u>	<u>Treatment</u>	<u>Total</u>
Collection All Users	\$ 192,553	\$ (1,311) <sup>1</sup>		\$ 191,242
Collection only/Fairgrounds <sup>2</sup>	\$ 2,025	\$ 4,655		\$ 6,680
Treatment All Users			\$ 232,428	\$ 232,428
<b>Total</b>	<b>\$ 194,578</b>	<b>\$ 3,344</b>	<b>\$ 232,428</b>	<b>\$ 430,350</b>

Notes:

1. Replacement reserve accrual based on annual depreciation of all District lines excepting Fairgrounds sole-use line, from prior year District Depreciation Schedule.
2. See Table D.1 BD (Budget Data) for details of cost allocation between Fairgrounds and other users.

**STEP 2a. Allocation to Billable Parameters**

	<u>Collection</u>		<u>Treatment</u>	<u>\$ Allocation</u>
<i>% of Budget</i>	<i>All Users</i>	<i>Only/Fair</i>	<i>All Users</i>	
	<b>\$ 191,242</b>	<b>\$ 6,680</b>	<b>\$ 232,428</b>	<b>\$ 430,350</b>
Flow, Coll	100%	na	na	\$ 191,242
Flow, Coll only/Fair	na	100%	na	\$ 6,680
Flow, Treatment	na	na	50%	\$ 116,214
BOD	na	na	25%	\$ 58,107
TSS	na	na	25%	\$ 58,107
			<b>Total</b>	<b>\$ 430,350</b>

Note: Amount and calculations for "billing" item shown on original study are excluded herein, as it was determined at that time to not be applicable for the District and was set at zero.

**STEP 2b. Revenue Requirement Allocation**

	<i>Revenue Required</i>	<i>Units &amp; Discharge</i>	<i>Unit Costs</i>	<i>Item</i> <i>No.</i>
Flow, Coll	\$ 191,242 /	60121 Ccf	= \$ 3.18 per Ccf	1
Flow, Coll only/Fair	\$ 6,680 /	1880 Ccf	= \$ 3.55 per Ccf	2
Flow, Treatment	\$ 116,214 /	60121 Ccf	= \$ 1.93 per Ccf	3
BOD	\$ 58,107 /	78528 pounds	= \$ 0.74 per pound	4
TSS	\$ 58,107 /	76492 pounds	= \$ 0.76 per pound	5
Total	\$ 430,350			

Collection All Users

Flow	\$ 5.11 per Ccf	Item 1 + Item 3
BOD	\$ 0.74 per pound	Item 4
TSS	\$ 0.76 per pound	Item 5

Collection only Fairgrounds<sup>2</sup>

Flow	\$ 8.67 per Ccf	Item 1 + Item 2 + Item 3
BOD	\$ 0.74 per pound	Item 4
TSS	\$ 0.76 per pound	Item 5

**WASTEWATER REVENUE STUDY  
SALSIPUEDES SANITARY DISTRICT**

**Table D.2**

for fiscal year 2023-2024 billing rates

**Cost of Service Based Rates (cont'd)**

**STEP 3. Calculate Billing Rates for Each Customer Class**

	<u>Item</u>	<u>Unit Costs</u>		<u>Discharge</u>		<u>Billing Rate</u>	<u>Units</u>	<u>Annual Revenue</u>
<u>Single Family:</u>								
	Flow	\$ 5.11 per Ccf	X	9.15 Ccf =		46.78		
	BOD	\$ 0.74 per pound	X	11.42 pounds =		8.45		
	TSS	\$ 0.76 per pound	X	11.42 pounds =		8.67		
				<b>Monthly Rate for Single Family accounts:</b>		<b>\$63.90</b>	x 12 x 501 =	<b>\$ 384,180</b>
<u>Multiple Family:</u>								
	Flow	\$ 5.11 per Ccf	X	6.86 Ccf =		35.09		
	BOD	\$ 0.74 per pound	X	8.56 pounds =		6.34		
	TSS	\$ 0.76 per pound	X	8.56 pounds =		6.50		
				<b>Monthly Rate for Multiple Family accounts:</b>		<b>\$47.93</b>	x 12 x 13 =	<b>\$ 7,477</b>
<u>Bakeries/Restaurants:</u>								
	Flow	\$ 5.11 per Ccf	X	1 Ccf =		5.11		
	BOD	\$ 0.74 per pound	X	6.24 pounds =		4.62		
	TSS	\$ 0.76 per pound	X	3.74 pounds =		2.84		
				<b>\$/Ccf Rate for Bakeries/Restaurants:</b>		<b>\$12.57</b>	X 816 =	<b>\$ 10,261</b>
<u>Laundries:</u>								
	Flow	\$ 5.11 per Ccf	X	1 Ccf =		5.11		
	BOD	\$ 0.74 per pound	X	2.81 pounds =		2.08		
	TSS	\$ 0.76 per pound	X	1.50 pounds =		1.14		
				<b>\$/Ccf Rate for Laundries:</b>		<b>\$8.33</b>	X 0 =	<b>\$ 0</b>
<u>All Other Commercial:</u>								
	Flow	\$ 5.11 per Ccf	X	1 Ccf =		5.11		
	BOD	\$ 0.74 per pound	X	1.07 pounds =		0.79		
	TSS	\$ 0.76 per pound	X	1.07 pounds =		0.82		
				<b>\$/Ccf Rate for All Other Commercial:</b>		<b>\$6.72</b>	X 588 =	<b>\$ 3,953</b>
<u>Churches/Schools:</u>								
	Flow	\$ 5.11 per Ccf	X	1 Ccf =		5.11		
	BOD	\$ 0.74 per pound	X	1.07 pounds =		0.79		
	TSS	\$ 0.76 per pound	X	1.07 pounds =		0.82		
				<b>\$/Ccf Rate for Churches/Schools:</b>		<b>\$6.72</b>	X 767 =	<b>\$ 5,157</b>
<u>All Other Institutional:</u>								
	Flow	\$ 5.11 per Ccf	X	1 Ccf =		5.11		
	BOD	\$ 0.74 per pound	X	1.07 pounds =		0.79		
	TSS	\$ 0.76 per pound	X	1.07 pounds =		0.82		
				<b>\$/Ccf Rate for All Other Institutional:</b>		<b>\$6.72</b>	X 0 =	<b>\$ 0</b>
<u>Fairgrounds:</u>								
	Flow	\$ 8.67 per Ccf	X	1 Ccf =		8.67		
	BOD	\$ 0.74 per pound	X	1.07 pounds =		0.79		
	TSS	\$ 0.76 per pound	X	1.07 pounds =		0.82		
				<b>\$/Ccf Rate for Fairgrounds:</b>		<b>\$10.28</b>	X 1880 =	<b>\$ 19,322</b>
				<b>TOTAL REVENUE:</b>				<b>\$ 430,350</b>