

CRESTLINE SANITATION DISTRICT

*MEMORANDUM*

**DATE:** JANUARY 12, 2023

**TO:** BOARD OF DIRECTORS  
Crestline Sanitation District

**FROM:** DAWN GRANTHAM  
Assistant General Manager

**SUBJECT: DRAFT PUMPED WASTE PERMIT FEE STUDY**

**A. RECOMMENDATION**

I recommend the approval of the Draft Pumped Waste Permit Fee Study as prepared by Bartle Wells Associates.

**B REASON FOR RECOMMENDATION**

The District has not raised the fees for septic permits or septic rates since 2010.

**C. OTHER INFORMATION**

A three-year phase-in has been calculated and includes adjustments for projected inflation.

**D. FISCAL INFORMATION**

Table 1 reflects the permit increases per year and Table 4 reflects the septic rates, resulting in approximately \$26,000 after three years.

**E. ATTACHMENTS**

Draft Pumped Waste Permit Fee Study



**DATE:** January 6, 2023  
**TO:** Rick Dever, General Manager, Crestline Sanitation District  
**FROM:** Doug Dove, Principal Consultant  
Erik Helgeson, Senior Project Manager  
**SUBJECT:** Draft Pumped Waste Permit Fee Study

---

## MEMORANDUM

---

### Background

Bartle Wells Associates (BWA) was retained by Crestline Sanitation District (District) to update its pumped waste permit fees to reflect the current cost of service. BWA worked with District staff to compile the relevant information necessary to perform the calculations.

### Cost per Pumped Waste Permit

In order to dispose pumped waste at the District's Houston Treatment Plant, the District requires a permit be purchased annually. BWA updated the permit fee by calculating the annual cost associated with each permit. The detailed calculations used to derive the fees are included in the attached tables.

### Pumped Waste Fees

The following fees reflect the District's cost to process pumped waste. All customers paying a pumped waste fee must have also paid for a pumped waste permit. The detailed calculations used to derive the fees are included in the attached tables.

### Treatment Cost

All pumped waste is processed at the District's Houston Treatment Plant. The Houston Treatment Plant cost per gallon of flow, pound of biochemical oxygen demand (BOD) and pound of total suspended solids (TSS) of waste treatment was calculated. Each of the following waste types was apportioned a treatment cost based on their estimated flows and loadings (BOD & TSS). Each waste type's BOD and TSS assumptions were based on the "Revenue Program Guidelines, State Water Resources Control Board."

### Septic Fee

The Septic Fee recovers the cost of treating and handling septic waste which has much higher BOD and TSS concentrations than typical municipal waste. The fee was derived by calculating the cost per gallon for the specific septic infrastructure maintained by the District and the cost per gallon of treating septic waste at the Houston treatment plant.

### Holding Fee

The Holding Fee recovers the cost of treating and handling holding waste which does not have measurable amounts of BOD and TSS and does not require separate infrastructure. The holding fee reflects the costs associated with treating holding wastewater at the Houston Treatment Plant.

### Recommended Pumped Waste Fee Schedule

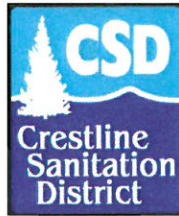
The following fee schedule shows the annual permit fee and the specific septic and holding fees phased-in from the existing fees to the calculated fees over three years.

#### Draft Phased-In Pumped Waste

<b>Permit Fees</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
<b>Permit Fee</b>	<b>\$44.53</b>	<b>\$54.06</b>	<b>\$63.58</b>
<b>Septic Fee</b>			
Septic Fee per Gallon:	<b>\$0.0934</b>	<b>\$0.1143</b>	<b>\$0.1353</b>
Gallons			
200	<b>\$18.68</b>	<b>\$22.86</b>	<b>\$27.06</b>
500	<b>\$46.70</b>	<b>\$57.15</b>	<b>\$67.65</b>
600	<b>\$56.04</b>	<b>\$68.58</b>	<b>\$81.18</b>
750	<b>\$70.05</b>	<b>\$85.73</b>	<b>\$101.48</b>
1,000	<b>\$93.40</b>	<b>\$114.30</b>	<b>\$135.30</b>
1,250	<b>\$116.75</b>	<b>\$142.88</b>	<b>\$169.13</b>
1,500	<b>\$140.10</b>	<b>\$171.45</b>	<b>\$202.95</b>
1,800	<b>\$168.12</b>	<b>\$205.74</b>	<b>\$243.54</b>
2,000	<b>\$186.80</b>	<b>\$228.60</b>	<b>\$270.60</b>
<b>Holding Fee: Up to 2,000 gallons</b>	<b>\$20.06</b>	<b>\$18.92</b>	<b>\$17.79</b>

### Conclusion

This update to the pumped waste permit fees will bring the fees in line with the District's costs associated with accepting, handling, and treating pumped waste. BWA recommends adjusting this fee annually based on the annual change in the CPI index to reflect cost inflation after the three-year phase-in.

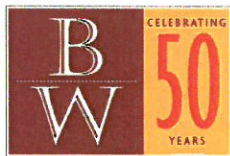


# **Crestline Sanitation District**

## **2022 Pumped Waste Permit Fee Study**

**DRAFT**

**January 6, 2023**



**BARTLE WELLS ASSOCIATES**  
INDEPENDENT PUBLIC FINANCE ADVISORS

**Table 1**  
**Permit Cost Calculation**  
**Pumped Waste Permit Fee Study**  
**Crestline Sanitation District**

**Per Permit Costs**

<b>Permit Processing Cost</b>	
Fully Burdened Hourly Rate (\$ per hour)	\$45.50
Permit Processing (Hours)	<u>0.5</u>
<b>Processing Cost per Permit</b>	<b>\$22.75</b>
<b>Annual Monitoring Costs per Permit</b>	
Monitoring Report to RWQCB (5 Hours)	\$228
Monitoring Wells and Creeks	\$16,705
Total Monitoring Cost	<u>\$16,933</u>
Average Annual Permits	<u>470</u>
<b>Monitoring Cost per Permit</b>	<b>\$36.03</b>
<b>Annual Permit Fee</b>	<b>\$58.78</b>

**Calculated Annual Permit Fee Adjusted for Projected Inflation**

Year 1 (2023)	\$58.78
Year 2 (2024)	\$61.13
Year 3 (2025)	\$63.58

**Three Year Annual Permit Fee Phase-In**

Existing Rate	<b>\$35.00</b>
Projected 2023	<b>\$44.53</b>
Projected 2024	<b>\$54.06</b>
Projected 2025	<b>\$63.58</b>

**Table 2**  
**Houston Treatment Plant Costs**  
**Pumped Waste Permit Fee Study**  
**Crestline Sanitation District**

Draft

**Houston Plant General & Administrative Expense**

General & Administrative Expense Allocation	Total Budget	Collection	Treatment
Allocation Amount		<u>33.33%</u>	<u>66.67%</u>
General & Administrative Expense	\$965,466	\$321,822	\$643,644
General & Administrative Expense Allocation	Total Treatment	Other Treatment	Houston Plant
Total Treatment Gallons	387,280,000	<u>229,500,000</u>	<u>157,780,000</u>
Allocation Amount		<u>59.26%</u>	<u>40.74%</u>
<b>Treatment General &amp; Administrative Expense</b>	<b>\$643,644</b>	<b>\$381,420</b>	<b>\$262,224</b>

Houston Plant Upgrade Debt Service Estimate	Amount
Project Cost	\$10,600,000
Issuance Cost	\$150,000
Total Issuance	\$10,750,000
SRF Interest Rate	1.50%
Loan Years	30
<b>Annual Payment</b>	<b>\$447,621.27</b>

Houston Plant Operating Expense Estimate	Amount
Houston Electrical Costs Annual	\$33,723
Operator Wages Annual	\$459,920
Houston Operating Permit	<u>\$7,928</u>
<b>Total Houston Plant Operating Expense Estimate</b>	<b>\$501,571</b>

**Table 3** Draft  
**Annual Septic Processing Costs**  
**Pumped Waste Permit Fee Study**  
**Crestline Sanitation District**

**Septic Processing Costs**

Average Gallons per run 30,000	Septic Gallons 242,375	Runs per year 8.07917	KW per run 144.33	KW cost per hour \$0.8665	Hours per run 6	\$ Total \$ 6,062.38	Energy Cost
Operator \$35.23	Hours 6	Runs per year 8.07917				\$ Total \$ 1,707.77	Labor
Polymer 55 gallon drum cost \$1,090.97	Cost per gallon \$19.84	Gallons per run 9	Hours per run 6			\$ Total \$ 1,071.36	Chemical Cost
One stop price per ton \$55.00	Tons per year 121.19					\$ Total \$ 6,665.45	Disposal Fees
Hauling Time hours 3	Operator hourly \$47.96	Trips 9				\$ Total \$ 1,294.92	Hauling Fees
Fuel Cost per gallon \$5.00	MPG 5	Miles for 8 runs 258.52				\$ Total \$ 6,463.00	Fuel Cost
Septic Pump \$37,712.50	Useful Life 15					\$ Total \$ 2,514.17	Depreciation
<b>Total</b>						<b>\$ Total \$ 25,779.05</b>	<b>Total</b>



**Table 4**  
**Septic Rate Calculation**  
**Pumped Waste Permit Fee Study**  
**Crestline Sanitation District**

Draft

**Houston Plant Septage Rate Component**

<b>Functional Cost Allocation</b>	<b>Total</b>	<b>Flow</b>	<b>BOD</b>	<b>TSS</b>
Allocation %	100%	50%	25%	25%
Annual Operating Permit	\$7,928	\$3,964	\$991	\$248
General & Administrative Expense	\$262,224	\$131,112	\$32,778	\$8,195
Plant Upgrade Debt Service Estimate	\$447,621	\$223,811	\$55,953	\$13,988
<b>Total Cost</b>	<b>\$717,773</b>	<b>\$358,887</b>	<b>\$89,722</b>	<b>\$22,430</b>

**Unit Cost Calculation**

	<i>Gallons</i>	<i>Pounds</i>	<i>Pounds</i>
Houston Plant Loading	157,780,000	412,209	339,776
<b>Unit Rate</b>	<b>\$0.0023</b>	<b>\$0.2177</b>	<b>\$0.0660</b>

**Septage Unit Cost Calculation**

	<i>Total per Gallon</i>	<i>Gallons</i>	<i>Pounds</i>	<i>Pounds</i>
Septic Loading		1.0000	0.0451	0.1002

<b>Houston Septage Rate (\$ per Gallon)</b>	<b>\$0.0187</b>	<b>\$0.0023</b>	<b>\$0.0098</b>	<b>\$0.0066</b>
---	-----------------	-----------------	-----------------	-----------------

**Septic Specific Costs Rate Component**

	<b>Amount</b>
Annual Septic Processing Costs	\$25,779
Septic Gallons	<u>242,375</u>
<b>Septic Specific Rate \$ per Gallon</b>	<b>\$0.1064</b>

**Total Septic Rate Calculation**

	<b>Amount</b>
	<i>\$ per Gallon</i>
Houston Septage Unit Rate	\$0.0187
Septic Unit Rate	\$0.1064
<b>Total Septic Rate</b>	<b>\$0.1251</b>

**Calculated Septic Rate Adjusted for Projected Inflation**

Year 1 (2023)	\$0.1251
Year 2 (2024)	\$0.1301
Year 3 (2025)	\$0.1353

**Three Year Septic Rate Phase-In**

Existing Rate	<b>\$0.0725</b>
Projected 2023	<b>\$0.0934</b>
Projected 2024	<b>\$0.1143</b>
Projected 2025	<b>\$0.1353</b>



**Table 5**  
**Holding Fee Calculation**  
**Pumped Waste Permit Fee Study**  
**Crestline Sanitation District**

Draft

<b>Holding Fee Cost (Treatment Component)</b>	<b>Amount</b>
General & Administrative Expense	\$262,224
Plant Upgrade Debt Service Estimate	\$447,621
Houston Electrical Costs Annual	\$33,723
Operator Wages Annual	\$459,920
Houston Operating Permit	<u>\$7,928</u>
<b>Total Houston Plant Operating Expense Estimate</b>	<b>\$1,211,416</b>
Houston Plant Total Gallons Treated Annually	157,780,000
Annual Holding Gallons Treated	<u>285,000</u>
Annual Holding Gallons Treated	0.18%
Annual Holding Cost	<u>\$2,188</u>
Holding Permits	<u>133</u>
<b>Per Holding Disposal Fee</b>	<b>\$16.45</b>

**Calculated Holding Disposal Fee Adjusted for Projected Inflation**

Year 1 (2023)	\$16.45
Year 2 (2024)	\$17.11
Year 3 (2025)	\$17.79

**Three Year Holding Disposal Fee Phase-In**

Existing Rate	<b>\$21.20</b>
Projected 2023	<b>\$20.06</b>
Projected 2024	<b>\$18.92</b>
Projected 2025	<b>\$17.79</b>

**Table 6**  
**Draft Phased-In Fee Table**  
**Pumped Waste Permit Fee Study**  
**Crestline Sanitation District**

<b>Draft Phased-In Pumped Waste Permit Fees</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
<b>Permit Fee</b>	<b>\$44.53</b>	<b>\$54.06</b>	<b>\$63.58</b>
<b>Septic Fee</b>			
Septic Fee per Gallon:	<b>\$0.0934</b>	<b>\$0.1143</b>	<b>\$0.1353</b>
Gallons			
200	<b>\$18.68</b>	<b>\$22.86</b>	<b>\$27.06</b>
500	<b>\$46.70</b>	<b>\$57.15</b>	<b>\$67.65</b>
600	<b>\$56.04</b>	<b>\$68.58</b>	<b>\$81.18</b>
750	<b>\$70.05</b>	<b>\$85.73</b>	<b>\$101.48</b>
1,000	<b>\$93.40</b>	<b>\$114.30</b>	<b>\$135.30</b>
1,250	<b>\$116.75</b>	<b>\$142.88</b>	<b>\$169.13</b>
1,500	<b>\$140.10</b>	<b>\$171.45</b>	<b>\$202.95</b>
1,800	<b>\$168.12</b>	<b>\$205.74</b>	<b>\$243.54</b>
2,000	<b>\$186.80</b>	<b>\$228.60</b>	<b>\$270.60</b>
<b>Holding Fee: Up to 2,000 gallons</b>	<b>\$20.06</b>	<b>\$18.92</b>	<b>\$17.79</b>