

City of Rio Dell



Wastewater Rate and Capacity Fee Study

DRAFT

May 20, 2014



BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS



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INDEPENDENT PUBLIC FINANCE ADVISORS

1889 Alcatraz Avenue
Berkeley, CA 94703
T: 510-653-3399
www.bartlewells.com

May 20, 2014
Jim Stretch, City Manager
City of Rio Dell
675 Wildwood Avenue
Rio Dell, CA 95562

Re: Wastewater Rate Study

Bartle Wells Associates (BWA) is pleased to submit to the City of Rio Dell the attached Wastewater Rate and Capacity Fee Study. The report presents BWA's recommended approach for changing the City's current flat wastewater rate to a flat plus volumetric rate structure. This report also recommends a new capacity fee for the wastewater system.

BWA finds that the wastewater rates and charges proposed in our report to be based on the cost of service, follow generally accepted rate design criteria, and adhere to the substantive requirements of Proposition 218. BWA believes that the proposed rates are fair and reasonable to the City's customers.

We enjoyed working with you on the rate study and appreciate the assistance and cooperation of City staff throughout the project. Please contact us if you ever have any future questions about this study and the rate recommendation.

Yours truly,

Doug Dove, CIPFA
Principal

Alison Lechowicz
Financial Analyst

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Executive Summary

Bartle Wells Associates (BWA) was engaged by the City of Rio Dell (City) to develop a new wastewater rate structure and to update the City's wastewater capacity fee.

Monthly Wastewater Rate

The current wastewater rate is a fixed monthly charge of \$76.16 per residence, also referred to as an equivalent dwelling unit (EDU). Commercial customers are assigned multiple EDUs based on their wastewater flow and pollutant loading relative to a single family residential customer.

BWA's recommended alternative wastewater rate structure includes a fixed monthly charge (\$/EDU) plus a volume rate (\$/hundred cubic feet) based on estimated wastewater flow. BWA developed wastewater rate alternatives by allocating the current wastewater cost of service of \$1.17 million to fixed and volume cost categories. The fixed monthly charge is based on each customer's EDU count and the volume rates are based on wastewater flow and strength characteristics.

The benefit of implementing a volume rate is equitability. Lower wastewater users pay a lower monthly bill than high wastewater users. Each customer pays a wastewater bill more closely proportional to how he or she uses the wastewater system.

BWA's Recommended Rate Structure: 70% Fixed and 30% Volume

BWA's recommendation allocates 70% of costs to the fixed charge and 30% of costs to the volume (variable) charge.

Table ES-1
City of Rio Dell
Wastewater Rate and Capacity Fee Study
Recommended Rate Structure: 70% Fixed and 30% Volume

Fixed Monthly Charge	\$47.01	per EDU
Volume Rate		
Customer Class		
Low	\$3.29	per ccf
Domestic Strength	\$4.11	per ccf
Medium	\$6.17	per ccf
High	\$7.19	per ccf

ccf = hundred cubic feet

The average residential customer has a monthly wastewater flow of 5 hundred cubic feet (ccf) and would have a monthly bill of \$67.56 under the recommended rates, a decrease from the current monthly bill of \$76.16.

$$\begin{array}{rcccccc}
 \text{Fixed} & & & \text{Volume} & & \text{Winter} & & \text{Total} \\
 \text{Charge} & & & \text{Rate} & & \text{Water Use} & & \text{Monthly Bill} \\
 \$47.01 & + & (& \$4.11 & \times & 5 &) & = & \$67.56 \\
 & & & \text{\$/ccf} & & \text{ccf} & & &
 \end{array}$$

Billing Procedures

BWA proposes changes to the City’s billing procedures such that only property owners can hold sewer accounts. Renters should no longer be permitted to open new sewer accounts. The property owner would be the ultimate party responsible for paying the sewer bill. If the property owner does not pay the sewer bill, the delinquency would become a lien against the property. Moreover, BWA recommends that all properties including vacant or inactive accounts be charged the fixed, EDU-based charge.

BWA also recommends that the City cap the billed volume at 15 hundred cubic feet of sewer flow for residential customers to account for high water use that may be due to outdoor irrigation, i.e. water use that does not flow into the sewer system. Commercial customers are not proposed to be capped.

Capacity Fee

BWA conducted an analysis of the City’s wastewater capacity fee and recommends increasing the current fee of \$950 to \$5,220 per equivalent dwelling unit. The recommended fee is a buy-in to the collection system and reflects the recently completed upgrades to the wastewater treatment plant. The recommended fee is moderate in comparison to other agencies in the region.

Rate Setting Legislation and Principles

In conducting this wastewater rate study, BWA adheres to the Proposition 218 requirements as described in this section. Subsequent sections provide the detailed, cost of service basis for BWA’s rate recommendation.

Proposition 218

Proposition 218, the “Right to Vote on Taxes Act”, was approved by California voters in November 1996 and is codified as Articles XIIC and XIID of the California Constitution. Proposition 218 establishes requirements for imposing or increasing property related taxes, assessments, fees and charges. For many years, there was no legal consensus on whether water and wastewater rates met the definition of “property related fees”. In July 2006, the California Supreme Court essentially confirmed that Proposition 218 applies to water and wastewater rates.

BWA recommends that the City follow the procedural requirements of Proposition 218 for all wastewater rate changes. These requirements include:

- **Noticing Requirement:** - The City must mail a notice of proposed rate changes to all affected property owners. The notice must specify the basis of the fee, the reason for the fee, and the date/time/location of a public rate hearing at which the proposed rates will be considered/adopted.
- **Public Hearing:** - The City must hold a public hearing prior to adopting the proposed rate changes. The public hearing must be held not less than 45 days after the required notices are mailed.
- **Rate Increases Subject to Majority Protest:** - At the public hearing, the proposed rates are subject to majority protest. If more than 50% of affected property owners submit written protests against the proposed rates, the rates cannot be adopted.

Proposition 218 also established a number of substantive requirements that apply to water rates and charges, including:

- **Cost of Service:** - Revenues derived from the fee or charge cannot exceed the funds required to provide the service. In essence, fees cannot exceed the “cost of service”.
- **Intended Purpose** - Revenues derived from the fee or charge can only be used for the purpose for which the fee was imposed.
- **Proportional Cost Recovery** - The amount of the fee or charge levied on any customer shall not exceed the proportional cost of service attributable to that customer.
- **Availability of Service** - No fee or charge may be imposed for a service unless that service is used by, or immediately available to, the owner of the property.
- **General Government Services** - No fee or charge may be imposed for general governmental services where the service is available to the public at large.

Charges for water, wastewater, and refuse collection are exempt from additional voting requirements of Proposition 218, provided the charges do not exceed the cost of providing service and are adopted pursuant to procedural requirements of Proposition 218.

Rate Development Principles

In reviewing the City’s current wastewater rates and finances, BWA used the following criteria in developing our recommendations:

1. *Revenue Sufficiency:* Rates should recover the annual cost of service and provide revenue stability.
2. *Rate Impact:* While rates are calculated to generate sufficient revenue to cover operating and capital costs, they should be designed to minimize, as much as possible, the impacts on ratepayers.
3. *Equitable:* Rates should be proportionately allocated among all customer classes based on their estimated demand characteristics. Each user class only pays its proportionate share.
4. *Practical:* Rates should be simple in form and, therefore, adaptable to changing conditions, easy to administer and easy to understand.

5. *Provide Incentive:* Rates provide price signals which serve as indicators to conserve water, reduce wastewater flow, and to use water efficiently.

Background

The City of Rio Dell (City) is located in Humboldt County and provides water and wastewater service to over 1,400 customers. The City currently charges all customers a fixed wastewater charge based on an equivalent dwelling unit (EDU) basis. Sometime ago, the City determined the wastewater flow and pollutant strength loading (loads) of the average residential customer. The average residential flow and loads is set as one EDU. Each commercial customer was assigned an EDU count based on the customer's flow and loads relative to a residential unit. The City engaged BWA to develop a new rate structure that includes a flat or fixed charge based on EDU count and a rate based on volume of wastewater discharged.

The City also engaged BWA to develop a new wastewater capacity fee. The City was successful in securing a Clean Water State Revolving Fund Grant and Loan for the upgrade of the wastewater treatment plant. The total cost of the improvement is \$10.7 million and the City received a grant (principal forgiveness) for \$6 million. Existing ratepayers and new connections will fund \$4.7 million in construction costs which will significantly affect the calculation of the capacity fee.

Wastewater Flow and Customer Projections

Customer Base

The City has approximately 1,400 residential and commercial wastewater customers recorded in the City's billing software. At any given time, some of the customers may have deactivated accounts. BWA analyzed the City's billing records and determined that the City's service area includes a number of rental units that have high turnover and revenues from these units may not be stable. Deactivated accounts are not currently charged the monthly rate.

Billing Procedures

BWA recommends that the City adjust its billing procedures to minimize delinquencies and lost revenue. The City has observed a trend of renters making their last month's rent payment and moving out of the City while neglecting to close their sewer account and pay their final sewer bill. These delinquencies result in lost revenue that is funded out of the sewer fund reserves.

BWA recommends that the City allow only property owners to hold sewer accounts. Renters should no longer be permitted to open new sewer accounts. The property owner would be the ultimate party responsible for paying the sewer bill. If the property owner does not pay the sewer bill, the delinquency would become a lien against the property. BWA recommends that as part of each renter's security deposit, the landlord/property owner collect funds for the payment of the renter's final sewer bill.

If the City implements BWA’s new fixed plus volume sewer rate structure, BWA recommends that the City collect the fixed portion of the charge from all properties including those that have their water service shutoff or may be vacant. Sewer service is a capital-intensive utility with a high percentage of fixed costs. Vacant properties benefit from the City operating and maintaining the sewer system in good working condition such that properties can connect and receive service at any time. All properties, including vacant properties, should pay the fixed charge.

The billing records of December 2013, January 2014, and February 2014 were used to determine the EDU count and sewer flow of the City’s service area. With the proposed changes to the billing procedures, the City can rely on revenues from all properties, including vacant properties, within the City. This change results in the EDU count increasing from about 1,300 EDUs under the old billing procedure (i.e. not charging vacant or disconnected accounts) to 1,433 EDUs under the new billing procedure.

Under the current (FY2013/14) monthly rate of \$76.16 per EDU and a customer base of 1,433 EDUs, the City could collect as high as \$1.31M in wastewater service charge revenue. To operate and maintain the sewer system and provide a high level of service, the sewer system revenue requirement is \$1.167M. Under the new billing system with the current rate of \$76.16 per EDU, the City would collect revenues in excess of the cost of service.

Recommended Customer Classes

BWA reviewed the City’s commercial customers and assigned customers to wastewater strength categories based on BWA’s prior rate study experience, industry standard practice, and the wastewater strengths described in the Revenue Program Guidelines developed by the State Water Resources Control Board, see Table 1 and Appendix A.

Customer Class	BWA Recommended Strength Factor	Example Customers
Low	0.80	Car wash, office, retail store, school w/o cafeteria, laundromat
Domestic	1.00	Single family residential, multifamily residential, hotel, school with cafeteria, motel, mobile home park, churches, auto shop, gas station, bars without dining
Medium	1.50	Beauty shop, medical office, dental office
High	1.75	Restaurant, market with food prep, bakery

BWA calculated the new EDU count of commercial customers by allocating 60% of the cost of service to flow and 40% to strength. This allocation is commonly used by small wastewater agencies that do not have detailed cost information or engineering studies available. The calculation for each commercial customer's EDU count is:

$$\text{EDU count} = (\text{avg winter water use}/5 \text{ ccf}) \times (60\% + 40\% \times \text{strength factor})$$

The average residential winter water use and assumed wastewater flow is 5 hundred cubic feet (ccf) per month. Wastewater flows are often estimated using winter water consumption. During the winter, customers typically do not use water for outdoor irrigation. The flow of each commercial customer is scaled in comparison to the 5 ccf wastewater flow of the average residential customer.

The City's current EDU count was compared with the BWA recommended EDU count based on the equation above. Some customers received a decrease in their EDU count and some received an increase. The BWA recommended EDU count results in a net gain of 15 EDUs. Under the BWA EDU count with no rate structure changes, the wastewater service charge would be \$67.16 to collect the revenue requirement of \$1.17M, see Table 2.

Table 2
City of Rio Dell
Wastewater Rate and Capacity Fee Study
EDU Count

Customer Class	Current EDU Count	BWA Recommended EDU Count	Net Change
Low	17	15	(2)
Domestic	1,402	1,414	12
Medium	3	4	1
High	11	15	4
	1,433	1,448	15
Cost of Service ¹	\$1,310,000	\$1,167,000	
Annual Cost per EDU	\$913.92	\$805.94	
Monthly Cost per EDU	\$76.16	\$67.16	

1 – With an EDU count of 1,433 and a monthly charge of \$76.16 (current), the City will collect \$1.3M in revenue. The City has determined that the cost of providing wastewater service is \$1.167M annually. To collect \$1.167M in annual revenue with an EDU count of 1,448 (BWA recommended), the monthly cost per EDU is \$67.16 - \$9 per month lower than the current monthly charge.

Rate Structure Alternative

In addition to updating the EDU count, BWA developed a rate structure alternative that adequately recovers the cost of providing service, is fair to the ratepayers, and includes a volumetric rate based on estimated wastewater flow. BWA developed a rate alternative in which revenues are allocated to fixed and volume rate components. Based on our experience with smaller wastewater systems, like the City's, fixed costs typically make up 50% to 90% of total costs and variable costs make up 10% to 50% of total costs. The fixed rate component is based on the EDU count described in the previous section and the volume rate is calculated based on an estimate of winter water use. Winter water use is based on the average monthly water use during December 2013, January 2014, and February 2014. The average monthly winter water use is multiplied by twelve to estimate yearly wastewater flow.

BWA's Recommended Rate Structure: 70% Fixed and 30% Volume

Under the recommended rate, BWA allocates 70% of revenue to the fixed monthly charge and 30% of revenue to a new volume rate. The fixed charge is based on the BWA recommended EDU count. The volume rate for low, domestic, medium, and high strength customers is scaled to the strength factor for each customer class.

The average residential monthly bill under the recommended rate structure is \$67.56.

Fixed Charge			Volume Rate		Winter Water Use		Total Monthly Bill
\$47.01	+	(\$4.11	x	5) =	\$67.56
			\$/ccf		ccf		

Table 3
City of Rio Dell
Wastewater Rate and Capacity Fee Study
Recommended Rate Structure: 70% Fixed and 30% Volume

FIXED CHARGE CALCULATION - 70%				Fixed Charge
Total Cost of Service		\$1,167,000		70% Revenue \$816,900
Customer Class	Strength Factor	BWA EDUs	Fixed Charge based on EDU	Annual Fixed Charge Revenue
Low	0.80	15	\$47.01	\$8,462
Domestic Strength	1.00	1,414	\$47.01	\$797,666
Medium	1.50	4	\$47.01	\$2,256
High	1.75	15	\$47.01	\$8,462
		1,448		\$816,846

VOLUME RATE CALCULATION - 30%				Volume Rate
Total Cost of Service		\$1,167,000		30% Revenue \$350,100
				\$4.14 avg rate per ccf
Customer Class	Strength Factor	Total Flow¹	Volume Rate²	Annual Volume Rate Revenue
Low	0.80	684	\$3.29	\$2,250
Domestic Strength	1.00	83,088	\$4.11	\$341,492
Medium	1.50	180	\$6.17	\$1,111
High	1.75	696	\$7.19	\$5,004
		84,648		\$349,857

1 - Units are hundred cubic feet (ccf). Based on winter water use. Residential winter water use is capped at 15 ccf per month.

2 - Volume rates are scaled to the domestic rate based on the strength factor (i.e. the low strength rate is 0.8 times the domestic strength rate). The domestic strength rate is set such that the total volume rate revenue is less than or equal to 30% of the cost of service.

Bill Impacts

Transitioning to a volume rate, residential customers with 7 ccf of wastewater flow or less will receive reductions in their monthly wastewater bills. BWA analyzed the monthly bill distribution of single family residential customers, see Figure 1. Under the recommended rates about 80% of single family residential customers would receive a decrease and about 20% of single family residential customers would receive an increase in their monthly wastewater bills. The maximum residential monthly bill (15 ccf) increase is \$32.50.

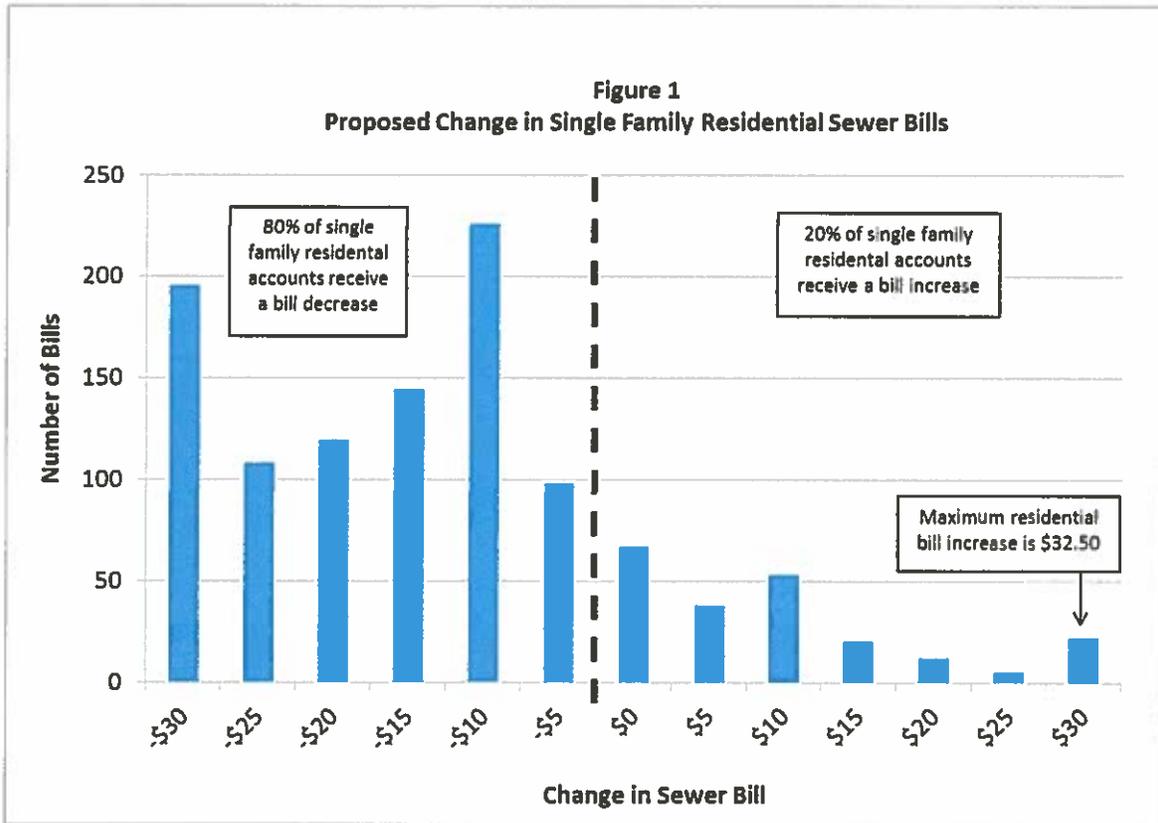


Table 4 shows bill impacts to low, average, and high water users under the recommended rates.

Table 4			
City of Rio Dell			
Wastewater Rate and Capacity Fee Study			
Single Family Residential Customer Bills Comparison			
Low User (3ccf)	Rate	Unit	Total Charge
Current			
Fixed	\$76.16	1	<u>\$76.16</u>
Total monthly bill			\$76.16
Recommended			
Fixed	\$47.01	1	\$47.01
Volume	\$4.11	3	<u>\$12.33</u>
Total monthly bill			\$59.34
Net change (recommended less current)			(\$16.82)
Average User (5ccf)	Rate	Unit	Total Charge
Current			
Fixed	\$76.16	1	<u>\$76.16</u>
Total monthly bill			\$76.16
Recommended			
Fixed	\$47.01	1	\$47.01
Volume	\$4.11	5	<u>\$20.55</u>
Total monthly bill			\$67.56
Net change (recommended less current)			(\$8.60)
High User (8ccf)	Rate	Unit	Total Charge
Current			
Fixed	\$76.16	1	<u>\$76.16</u>
Total monthly bill			\$76.16
Recommended			
Fixed	\$47.01	1	\$47.01
Volume	\$4.11	8	<u>\$32.88</u>
Total monthly bill			\$79.89
Net change (recommended less current)			\$3.73

Bill Survey

BWA conducted a bill survey to compare the current and proposed single family wastewater bill in the City of Rio Dell to other local agencies. Rio Dell currently has the highest sewer bill in the region, see Figure 2 and Table 5. Under BWA’s proposed sewer rate alternative, the average single family residential wastewater bill is reduced from \$76.16 to \$67.56 and is no longer the highest bill in the region.

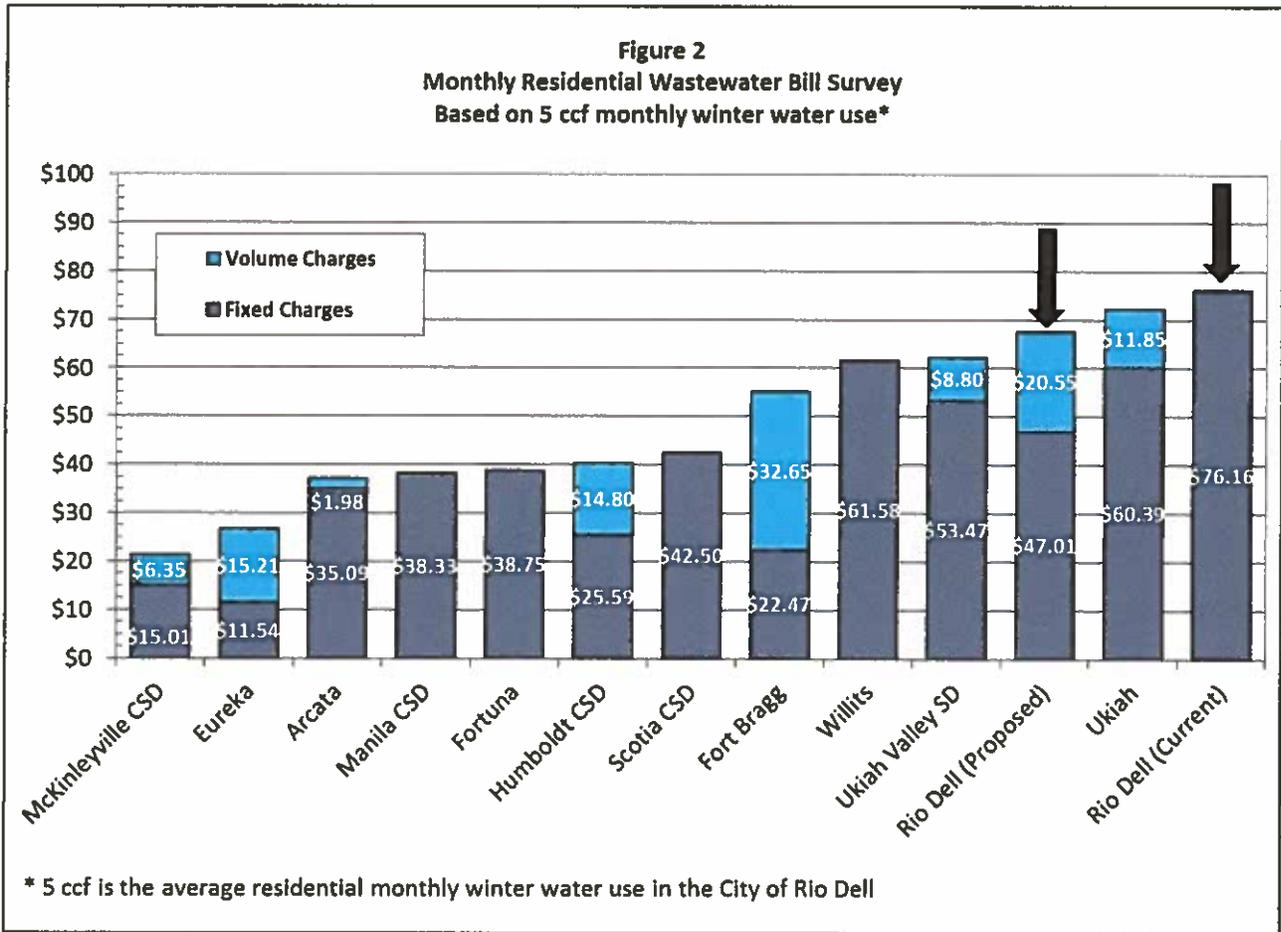


Table 5
City of Rio Dell
Wastewater Rate Study
Survey of Typical Monthly Bills of Residential Customers

Based on winter water use of 5 ccf per month

McKinleyville Community Services District	
Fixed	15.01
Flow-based (\$1.09/ccf up to 12 ccf)	<u>6.35</u>
Total Monthly Bill	21.36
City of Eureka	
Fixed	11.54
Volume-based on water use over 2 units (\$4.43/ccf)	<u>15.21</u>
Total Monthly Bill	26.75
City of Arcata	
Base Charge	28.58
Sewer Repair Fee	5.00
Flow over allowance of 4.5 ccf (\$4.30/ccf)	<u>1.98</u>
Subtotal	<u>35.56</u>
Utility Tax of 3%	<u>1.51</u>
Total Monthly Bill	37.07
Manila Community Services District	
Fixed	<u>38.33</u>
Total Monthly Bill	38.33
City of Fortuna	
Base Charge for up to 5 ccf of flow	38.75
Flow-based (\$8.61/ccf over 5)	<u>0.00</u>
Total Monthly Bill	38.75
Humboldt Community Services District	
Account Charge	4.00
Base Rate	21.59
Flow-based (\$2.79/ccf)	<u>14.80</u>
Total Monthly Bill	40.39
Scotia Community Services District	
Fixed	<u>42.50</u>
Total Monthly Bill	42.50
City of Fort Bragg	
Fixed	22.47
Flow-based (\$6.20/ccf)	<u>32.65</u>
Total Monthly Bill	55.12
City of Willits	
Fixed	<u>61.58</u>
Total Monthly Bill	61.58
Ukiah Valley Sanitation District	
Fixed	53.47
Flow-based (\$4.45/ccf over 3.4)	<u>8.80</u>
Total Monthly Bill	62.27
City of Ukiah	
Fixed	60.39
Flow-based (\$2.29/ccf)	<u>11.85</u>
Total Monthly Bill	72.24
City of Rio Dell (current)	
Fixed	<u>76.16</u>
Total Monthly Bill	76.16

Wastewater Capacity Fee

As part of the wastewater rate study, BWA also evaluated the City's wastewater capacity fee. The purpose of capacity fees is to recover the capital costs of facilities needed to serve growth and new customers. In establishing any fee or charge, achieving equity is one of the primary goals. In the case of capacity fees, this goal is often expressed as "growth should pay for growth". The fees must be reasonable and non-arbitrary and based on facility capital costs, user loads, and system capacity.

California Government Code Section 66013 contains the regulations regarding water and wastewater connection fees or capacity fees. It states that such fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fees or charges are imposed unless the amount of the fee or charge imposed in excess of the estimated reasonable cost of providing the services is submitted to the electorate and approved by two-thirds vote. The calculations provided below demonstrate the reasonable cost of service of providing wastewater service to the City's customers.

Capacity Fee Methodology

BWA used a System Buy-in Method for calculating the City's wastewater capacity fee. The buy-in concept is based on the premise that new customers are entitled to service at the same price as existing customers. Existing customers, however, have already provided the facilities that will serve the new customers, including any costs of financing those facilities. Under this method, new customers pay an amount equal to the investment already made by existing customers in the facilities. This equity investment is divided by the number of customers (or customer equivalents) to determine the amount of payment required from the new customer to buy in to the utility at parity with existing customers. Once new customers have paid their fee, they become equivalent to existing customers and share the responsibility for existing facilities. When additional costs are incurred for system improvements, replacement, or expansion, all customers share the costs of such improvements.

This method is appropriate because new customers are buying into the existing collection system and into the wastewater treatment plant. The City recently upgraded its wastewater treatment plant to come into compliance with a cease and desist order from the Regional Water Quality Control Board and to expand capacity. The improvements to the treatment plant benefit both existing and new customers and the costs of the improvements should be shared by both groups of customers. The project will increase capacity of treatment plant from 0.3 million gallons per day (mgd) to 0.5 mgd average dry weather flow. The expanded capacity will serve growth in the community through buildout. The total cost of the wastewater treatment plant expansion and improvements is \$10.7 million. \$6 million of the construction cost is offset by a grant and the remaining cost of \$4.7 million will be financed through a loan from the Clean Water State Revolving Fund.

BWA calculated a buy-in cost to the City's collection system based on the replacement cost new less depreciation (RCNLD) value of existing facilities. This valuation method is based on the depreciated accounting book value of each asset escalated into current dollars based on the change in the Engineering News-Record (ENR) Construction Cost Index 20 Cities Average from each asset's original date. The ENR index is a widely-used index for determining construction cost inflation.

Capacity Fee Calculation

The City provided BWA with a list of wastewater system assets, the original construction or purchase price, useful life of the asset, and depreciation. In total, the RCNLD value of the wastewater system is about \$11.35 million. HDR Engineering, the engineer for the wastewater treatment plant upgrade, determined that the average dry weather flow buildout capacity of the treatment plant will be 0.5 million gallons per day (mgd). \$11.35 million divided by 0.5 mgd equals a capacity cost of \$22.70 per gallon of dry weather flow per day. The average dry weather capacity per EDU is about 230 gallons¹ which equals a wastewater capacity fee of \$5,220 (\$22.70/gpd x 230 gallons), see Table 6.

Table 6
City of Rio Dell
Wastewater Rate and Capacity Fee Study
Wastewater Capacity Fee Calculation

Asset Description	Date of Construction or Purchase	Useful Life (Months)	Original Cost	Total Accumulated Depreciation	Remaining Book Value	RCNLD ¹
Infrastructure						
Misc Infrastructure	12/15/2010	360	2,750,571	(183,977)	2,566,594	2,823,613
Building and Improvements						
Corp Yard Fencing	12/15/2009	84	8,310	(3,561)	4,749	5,186
Land						
Misc Land	2000		502,543	NA	502,543	502,543
Mach & Equip						
RIVER PUMP	1/16/2004	84	5,505	(5,505)	0	0
SEWER PUMP	2/4/2004	84	15,974	(15,974)	0	0
SEWER MACHINE	3/18/2004	84	36,310	(36,310)	0	0
SEWER PUMP	6/1/2004	84	16,031	(16,031)	0	0
SEWER PUMP	7/9/2004	84	38,460	(38,460)	0	0
SEWER PUMP	3/20/2006	84	13,357	(13,183)	174	213
Fembridge Tractor	4/25/2008	84	11,148	(7,964)	3,184	3,705
Aqua Sierra Controls	6/30/2008	60	73,342	(73,342)	0	
2008 John Deere Tractor	3/15/2009	60	45,011	(34,008)	11,003	12,167
City Hall Heating Unit	11/9/2011	60	190	(38)	152	156
Vehicles						
1/2 2003 FORD F-351	8/30/2003	84	13,750	(13,750)	0	0
2008 Ford F-350	8/1/2008	60	12,386	(12,386)	0	0
1978 GMC Vactor Truck	5/6/2010	36	1,833	(1,833)	0	0
1993 Chevy S-10	7/28/2010	36	1,252	(1,252)	0	0
Construction in Progress						
CIP - Sewer Effluent Disposal	12/15/2012	480	3,291,939	0	3,291,939	3,300,683
Wastewater Treatment Plant (less grant)			<u>10,700,000</u>	<u>(6,000,000)</u>	<u>4,700,000</u>	<u>4,700,000</u>
Total Value of City Wastewater Facilities			\$17,537,910	(\$6,467,673)	\$11,080,337	\$11,348,266
					Buildout dry weather flow (gallons/day)	500,000
					Buy-in cost per gallon of flow	\$22.70
					Average dry weather flow per EDU (gallons/day) ²	230
					Wastewater capacity fee per EDU	\$5,220

1 - RCNLD is calculated by escalating the original cost to current dollars using the Engineering News Record Construction Cost Index 20 Cities Average.

2 - Calculated by BWA from information provided by HDR Engineering, Inc.

For new nonresidential customers, the City engineer should determine the EDU count of each new customer based on estimated wastewater flow and strength. The wastewater capacity fee for new nonresidential customers should be scaled to the EDU count.

¹Calculated by BWA from information provided by Craig Olson, Project Manager for the Wastewater Treatment Plant upgrade, HDR Engineering, Inc. The current dry weather flow at the plant is approximately 0.3 mgd, divided by 1,292 EDUs equals a capacity of 230 gallons per day per EDU.

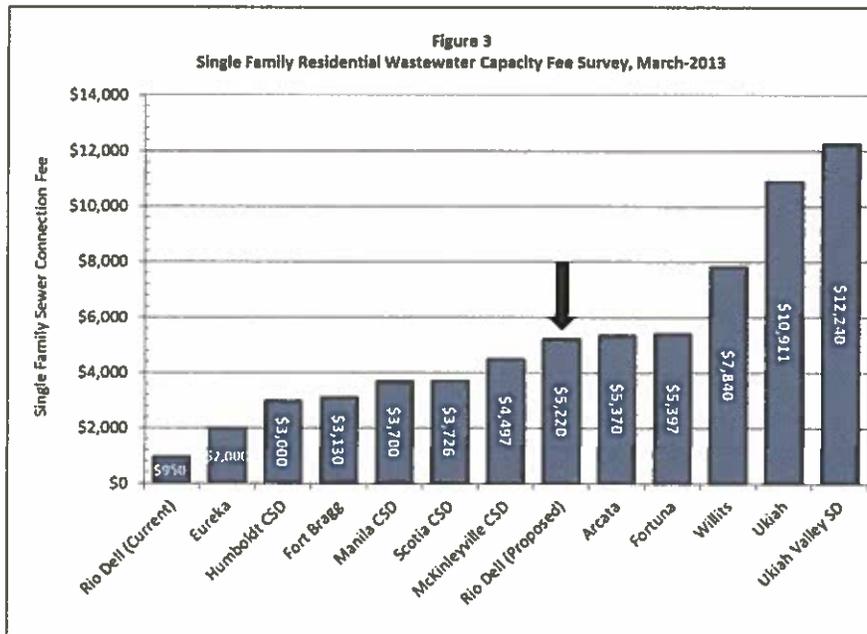
Capacity Fee Survey

The City's current wastewater capacity fee is \$950 per EDU, the lowest in the region. The recommended capacity fee of \$5,220 is competitive with other local agencies. BWA conducted a capacity fee survey of the typical fees for new single family connections and found that the fees range up to \$12,240 (Ukiah Valley Sanitation District), see Table 7 and Figure 3.

Table 7
City of Rio Dell
Wastewater Rate and Capacity Fee Study
Wastewater Capacity Fee Survey - Single Family Residential Home

City of Rio Dell (Current)	950.00
City of Eureka	2,000.00
Humboldt Community Services District	3,000.00
City of Fort Bragg	3,129.59
Manila Community Services District ¹	3,700.00
Scotia Community Services District ²	3,726.00
McKinleyville Community Services District	4,497.00
City of Rio Dell (Proposed)	5,220.00
City of Arcata	5,370.00
City of Fortuna ³	5,397.00
City of Willits	7,840.00
City of Ukiah	10,911.00
Ukiah Valley Sanitation District ⁴	12,240.00

- 1 - District has a STEP sewer system.
- 2 - Typical capacity fee as shown in the District's Rules and Regulations, includes many sub-charges based on acreage.
- 3 - Assumes 17 fixture units for the typical home at a cost of 317.50 per fixture unit.
- 4 - Wastewater capacity fee for a two bedroom house.



Adjusting Capacity Fees

Capacity fees should be adjusted regularly to prevent them from falling behind the costs of constructing new facilities. Several methods can be used to adjust the capacity fees, including:

- ENR Construction Cost Index: ENR (Engineering News-Record) magazine publishes construction cost indices monthly for 20 major U.S. cities and an average of 20 cities around the U.S. These indices can be used to estimate the change in the construction cost of facilities. If the ENR Index has increased by three percent since the last capacity fee adjustment, the capacity fee should be increased by three percent.
- U.S., California, or regional consumer price index.
- Interest rate and borrowing costs: The interest and borrowing costs for debt issued to finance wastewater capital projects can be added to the capacity fee annually.

BWA recommends that the City adjust its capacity fees annually by the change in the ENR Construction Cost Index 20 Cities Average. This is the most appropriate index because it directly reflects construction costs. Suggested language for implementing this policy is:

Each year, commencing on (m/d/y) and continuing thereafter on each (m/d) , the capacity fee shall be adjusted by an increment based on the change in the Engineering News-Record Construction Cost Index 20 Cities Average over the prior year. However, the City Council may at its option determine, by resolution adopted prior thereto, that such adjustment shall not be effective for the next succeeding year, or may determine other amounts as appropriate.

Capacity fees should also be reviewed in detail when updated information, such as a revised master plan or capital improvement program, is obtained, but not less than every five years.

Appendix A

Low Strength	<ul style="list-style-type: none"> Banks & Financial Institutions Barber Shops Hair Salon (hair cutting only) Dry Cleaners Laundromats Offices - Business and Professional Offices - Medical/Dental (without surgery) Post Offices Retail Stores Schools without cafeteria Car Wash
Domestic Strength	<ul style="list-style-type: none"> Residential - All Appliance Repair Auto Dealers - without Service Facilities Nail Salons Pet Groomers Bars & Taverns - without dining Camp Ground or RV Park Churches, Halls & Lodges Fire Stations Hotels, Motels, B&Bs, and Vacation Rentals (W/O restaurant) Libraries Rest Homes Shoe Repair Shops Theaters Warehouses Car Washes - Self Service High Tech Medical Manufacturing Light Manufacturing/Industrial Mobile Home Park Gas Station Gym or Health Club Schools with cafeteria Auto Dealers - with Service Facilities Machine Shops Service Stations, Garages, Auto Repair Shops
Medium Strength	<ul style="list-style-type: none"> Restaurants - W/O Dish Washer & Garbage Disposal Coffee Shops - W/O Dish Washer & Garbage Disposal Mini Marts - W/O Dish Washer & Garbage Disposal Mini Mart with Gas Pumps - W/O Dish Washer & Garbage Disposal Catering - W/O Dish Washer & Garbage Disposal Hotel/Motel with Restaurant Beauty Shops (hair cutting w/additional treatments) Hospitals - General, Convalescent & Veterinarian Medical Offices - with Surgery Dental Offices
High Strength	<ul style="list-style-type: none"> Restaurants - with Dish Washer or Garbage Disposal Coffee Shops - with Dish Washer or Garbage Disposal Catering - with Dish Washer or Garbage Disposal Bakeries Butcher Shops Fish Market/Shop Markets - with Dish Washer or Garbage Disposal Markets - with Bakeries or Butcher Shops Mini Marts - with Dish Washer or Garbage Disposal Wineries Cheese Makers Dairy Products (milk producers, yogurt, ice cream maker) Specialty Foods Manufacturing (e.g., olive oil maker) Ice Cream Shop Tasting Rooms Spa with Various Beauty Treatments Funeral Homes/ Mortuary
