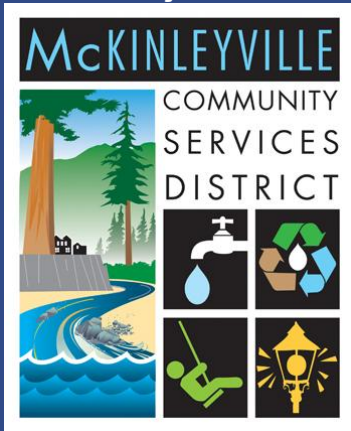


# McKinleyville Community Services District



*January 8, 2014*



## Updated Water Rate and Financial Analysis *Draft Report*



**WILLDAN**  
Financial Services

*extending  
your  
reach*

***Temecula Office:***

27368 Via Industria, Suite 110

Temecula, California 92590

T 951.587.3500 | T 800.755.6864 | F 951.587.3510

***Corporate Office:***

Anaheim, California

***Other Offices:***

Oakland, California

Sacramento, California

Orlando, Florida

Phoenix, Arizona

January 8, 2014

Greg Orsini  
General Manager  
McKinleyville Community Services District  
1656 Sutter Road (Post Office Box 2037)  
McKinleyville, California 95519-2037

Mr. Orsini,

Willdan Financial Services (Willdan) is pleased to present this draft report to provide background on the update of the Water Rate Analysis and Financial Plan Study that was originally completed for the McKinleyville Community Services District (MCSD) in 2012.

The purpose of this analysis is to provide updated water rates that correct a deficiency in the rates that were adopted in 2012. Due to a modeling error, the 2012 rates did not include the cost of water purchased for sale to MCSD customers from Humboldt Bay Municipal Water District (HBMWD). As a result, the revenue collected by MCSD was not sufficient to meet MCSD's ongoing costs of operations.

The bulk of this updated report simply describes the approach and methodology from the 2012 study, since the structure of the water rates, and the underlying analysis and cost-of-service rationale has not changed. The original analysis was undertaken in 2012 to provide revenue and water rate recommendations that were based upon recommended best practices from the American Water Works Association and that were in compliance with California Proposition 218. The focus of the 2012 study was to ensure MCSD had sufficient revenues to meet its short and long-term operational, capital and debt service obligations and that recommended rates would be proportionate to the costs of providing service to each customer class. This update follows the same rationale and is focused on the same purposes. The only changes for these updated rates are the addition of a pass through charge to recover costs associated with ongoing purchased water from HBMWD, a Recovery Surcharge, to recover costs associated with past water purchases, and the inclusion of an annual inflationary adjustment. This report summarizes the approach, methodology, findings, and conclusions of the study, and describes the changes in more detail.

The 2012 analysis was prepared using generally accepted rate setting techniques. MCSD's accounting, budgeting, billing records, and capital improvement list were the primary sources for the data contained within the report. The conclusions enclosed within this report provide MCSD with a set of recommendations to provide stable defensible funding for continued high-quality operations. I am confident that the results developed based on the cost of service analysis result in fair and equitable rates to MCSD customers.

Sincerely,  
Willdan Financial Services



Chris Fisher  
Group Manager

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# Introduction and Background

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The McKinleyville Community Services District (MCSD) provides water service to approximately 5,500 residential and commercial customers in coastal Humboldt County, just north of Eureka. MCSD purchases its wholesale water supply from the Humboldt Bay Municipal Water District, which diverts water from its million-gallon tank on Essex Hill, under the Mad River, to MCSD's Grant A. Ramey Pump Station at North Bank and Azalea Roads. Water is then pumped to storage tanks at McCluski Hill, Cochran Road and Norton Road; MCSD's six storage tanks have a combined capacity of 5.25 million gallons, approximately a 36-hour supply for its customers. Water rate revenue provides funding for the cost of wholesale water purchased from HBMWD for resale to MCSD customers, costs related to system operations, current and future capital projects, debt service, administration and management, as well as costs related to prudent long-term operational and financial management of the utility, such as establishment and maintenance of adequate reserves and funding of future capital needs.

In June 2012, Willdan Financial Services (Willdan) completed its financial analysis and rate study for the MCSD water and sewer utilities, and provided its Final Report of the Water and Sewer Rate Analysis (2012 Analysis), attached hereto as Appendix A. The purposes of the 2012 Analysis were to provide financial, revenue, and customer rate recommendations relative to MCSD's water and sewer operations so that MCSD would have sufficient revenues to meet its short and long-term operational, capital, and debt service obligations. The initial review of the District's existing rate structure at the time suggested that it did not provide rates that reflected the full cost of providing water and wastewater services to MCSD customers. In addition, the existing rates were failing to generate sufficient revenue to fund existing and projected expenditures (operations, maintenance, and capital) and meet reserve targets. While MCSD maintained moderate reserve levels at that time, the existing rates were not sustainable, as the water utility was not generating sufficient revenue and was subsequently running at a net loss. A five-year financial plan was established for the Water and Sewer utilities which proposed a series of rates, which were enacted, effective July 1 of each year, beginning on July 1, 2012 and ending on July 1, 2016.

In May 2013 an apparent deficiency was discovered between the amount of water revenue being collected, based upon MCSD's monitoring of approximately 8 months of actual water revenues for Fiscal Year 2012, compared to water revenues projected during that same time period using the approved July 1, 2012 water rates. After discussion between MCSD and Willdan, additional analysis of revenue being collected, compared to expected revenues, and an examination of the financial plan and water rate model that was constructed as part of the 2012 Analysis; it was found that the cost of water purchased from Humboldt Bay Municipal Water District (HBMWD) for resale to MCSD customers, was mistakenly not included as a cost component of the 2012 water rates, and was therefore not being collected from MCSD customers, resulting in a revenue shortfall.

The HBMWD purchased water component of the 2012 water rates was intended to represent the cost of water purchased from HBMWD and was intended to be directly recovered from customers. The full cost

of water purchased for resale should have been included as a specific line item of the rates and passed through directly to each customer based on their respective water consumption. After consideration of several scenarios for the treatment of the HBWMD purchased water costs in the 2012 rates, it was decided to recover this cost through two means. The intent was for the base cost of HBWMD purchased water, the cost that existed and was known at the time of adoption of the 2012 water rates, to be recovered directly through the basic adopted water rates. Annual increases in the cost of water purchased from HBWMD would be passed through to customers in the form of a separate annual pass through charge. This Pass Through amount was to be based on the actual additional cost per hundred cubic feet of water (in relation to the base amount) purchased from HBWMD. However, due to the issue with the 2012 water rate model, the base cost of HBWMD purchased water was not included in final 2012 water rates. Therefore, from MCSO's perspective, no revenue was collected from customers to offset the cost of water purchased from HBWMD, and thus MCSO customers were not paying for the cost of water purchased for their use. In subsequent years following adoption of the 2012 rates, the Pass Through amount was added, but it only reflected the incremental annual increase in purchased water costs, not the base amount upon which that increase was based.

# Changes to the 2012 Water Rates

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The three changes discussed below will be included as new components to the previously adopted 2012 water rates. The water rates being proposed for adoption and effective March 2014 will be based on the existing 2012 water rate structure with the addition of the following three changes. **It is important to note that:** 1.) the underlying rate structure and rationale will not change from that proposed and described in the 2012 Analysis, which is included for reference as an appendix to this report, and 2.) the sewer rates **are not** affected by these changes here.

## Inflation Adjustment Mechanism

To account for anticipated increases in the costs of operating the water utility, the Fixed (Base) and Variable (Volume/Commodity) charges will be adjusted annually for inflation based on the GDP Implicit Price Deflator as published annually in the Energy Information Administration's Annual Energy Outlook. This inflationary adjustment will only be applied to the Fixed and Variable charges since the HBMWD Pass Through already factors in the true then-current cost of purchased water, and the Recovery Surcharge is only recovering a cost that was already incurred, and not subject to inflationary increase.

The underlying rate structure that was adopted in 2012 will remain unchanged. However, the proposed Fixed and Variable charges have been adjusted to reflect the inflation adjustment through 2014. The rationale and methodology that was used to develop those rates also remains unchanged. Previous rates were developed using a cost of service approach, as recommended by the American Water Works Association, and as required by California Proposition 218, as is fully described in the attached report, see Appendix A.

## Recovery Surcharge

In addition, as part of the 2014 proposed water rates, there will be a Recovery Surcharge added to customer bills for the next four years. The purpose of the Recovery Surcharge is to restore MCSD's reserves, which have reached an undesirably low level as a result of the insufficient rates that have been in effect for the past 18 months. Water was purchased by MCSD from HBMWD, but since the cost of that water was not included as a component in the base water rates, the cost was not recovered from customers and was instead funded from reserves. While the period of time over which this occurred was approximately 18 months, the recovery of this amount will be extended over four years to reduce the impact on MCSD customers.

The total amount to be recouped through the Recovery Surcharge was calculated as the total cost of water purchased with reserve funds between the date the rates proposed in the 2012 Analysis were put into effect and the proposed effective date of the update rates set forth in this Report. Since the system reserves (and the purchase of water) ensure system capacity and ability to serve MCSD customers, the

amount of the surcharge for each customer will be determined based upon their equivalent meter capacity. The amount of the Surcharge will be calculated as \$3.66 per Equivalent Residential Unit (ERU), per month. The Equivalent Residential Unit for a customer varies based upon their installed water meter size, and is based upon gallon per minute flow rates. Residential customers are considered one ERU, and larger meter sizes have correspondingly higher ERU values, based upon their proportionate increase in capacity, utilizing the same AWWA recommended equivalent meter factor approach that is used to develop the meter (or fixed) charge component of the rates. This approach apportions the cost of previously purchased water to customers based upon their capacity requirements, and based upon the demand and cost incurred for serving those customers.

The implementation of this surcharge will help restore MCSD's financial reserves, which were depleted as a result of this issue with the 2012 rates, to appropriate levels. A healthy reserve fund is critical to the ability of MCSD to serve its customers and respond to unforeseen and unpredictable costs associated with the water system. The reserves, like all elements of the water charges, may only be used to fund costs associated with the water system.

### **Humboldt Bay Municipal Water District Pass Through**

To address the fact that the cost of purchased water was not included as a basic cost of service component in the 2012 rates, and the resulting lack of cost recovery and related revenue deficiency, MCSD will include a HBMWD Pass Through charge.

As discussed previously, the original 2012 rates were intended to include the cost of HBMWD water at the time the 2012 rates were adopted as a base component of the rates, and then pass through increases in subsequent years. Since the base rates did not include that component, MCSD will now pass the entire wholesale cost of water purchased by MCSD from the Humboldt Bay Municipal Water District directly through to customers. This more direct and transparent approach will result in the same cost of water being included in the water rates, but it will be included as one component (the annual HMBWD Pass Through), rather than as two components (the base cost in the base rates, and the additional annual pass through of incremental increases to the HMBWD rate). Increases in the cost of water purchased from HBMWD are effectively accounted for when the entire cost of purchased water is passed through. This approach simplifies the process of updating the rates by layering this on as one new component.

This pass through charge is necessary in order to ensure cost recovery of commodity water charges imposed by HBMWD which are beyond the control of MCSD. The HBMWD Pass Through will be included as a separate line item on customer water bills, and will reflect only the direct cost of water purchased from HBMWD for resale to MCSD customers. Since all water purchased by MCSD from HBMWD is sold to MCSD customers, the amount of the HBMWD Pass Through Charge for each customer will be based upon the amount of metered water use by that customer, and is represented as a dollar amount per Hundred Cubic Feet (HCF) of water purchased from HBMWD. In this manner, water purchased from HBMWD will be included as a separate cost component of the 2014 water rates paid by MCSD customers. Including the cost of purchased water in this manner directly ensures that customers are paying an amount that is directly attributable to the cost of water purchased on their behalf for their



use and benefit. For 2014, the first year of the proposed updated rates, the charge will be \$1.22 per HCF of water used. This amount will be updated annually on July 1<sup>st</sup> based upon the Cost of HBMWD water for that year.

## Updated Water Rates

The following tables provide the updated water rates. As stated previously, the underlying approach and rationale used in 2012 to develop the Fixed and Variable components of the basic rate structure have not changed; rather the three changes mentioned above are proposed for implementation as new components of the basic rates.

### Fixed Charge

The following figure 1-1 outlines the new 2014 recommended Fixed Meter Charge adjusted for the Annual Inflationary Adjustment.

Figure 1-1: 2014 Adjusted Monthly Fixed (Base) Charge (\$/Mtr/Month)

Meter Charge		Existing	March 1, 2014	January 1, 2015	January 1, 2016	January 1, 2017	January 1, 2018
<u>Meter Size</u>	<u>ERU</u>						
<b>5/8"</b>	1	\$10.73	\$ 10.89	\$ 12.14	\$ 13.30	\$ 14.57	\$ 15.39
<b>3/4"</b>	1.5	14.04	14.24	15.88	17.40	19.06	20.13
<b>1"</b>	2.5	20.65	20.94	23.36	25.59	28.03	29.60
<b>1 1/2"</b>	5	37.18	37.70	42.05	46.07	50.46	53.29
<b>2"</b>	8	57.01	57.82	64.48	70.65	77.38	81.72
<b>3"</b>	15	103.29	104.75	116.83	128.00	140.18	148.05
<b>4"</b>	25	169.40	171.79	191.60	209.93	229.90	242.81
<b>6"</b>	50	334.68	339.39	378.53	414.74	454.21	479.70
<b>8"</b>	80	533.02	540.52	602.86	660.52	723.38	763.98

### Variable (Commodity) Charge

Figure 1-2 outlines the new 2014 recommended Variable / Commodity charges including the Volume charge and the Recovery Surcharge. Figure 1-3 outlines the Humboldt Bay Municipal Water District Pass-Through charge.

Figure 1-2: 2014 Adjusted Recommended Water Variable (Commodity) Rates

Commodity Charge		March 1st, 2014	January 1st, 2015	January 1st, 2016	January 1st, 2017	January 1st, 2018
<b>Volume Charge (\$/HCF)</b>						
Tier 1	0 - 8	\$ 1.04	\$ 1.16	\$ 1.27	\$ 1.39	\$ 1.47
Tier 2	8.01 +	2.59	2.89	3.16	3.46	3.66
<b>Recovery Surcharge</b>						
	(\$/ERU/month)	\$ 3.66	\$ 3.66	\$ 3.66	\$ 3.66	\$ -

Figure 1-3: 2014 Adjusted Recommended Humboldt Bay Municipal Water District Pass-Through

Commodity Charge		July 1st, 2014	July 1st, 2015	July 1st, 2016	July 1st, 2017	July 1st, 2018
<b>Humboldt Bay Municipal Water District Pass-Through</b>						
	(\$/HCF)	\$ 1.22	TBD	TBD	TBD	TBD

MCSD is proposing to phase in the new rates as a series of annual water rate adjustments. . The Fixed and Volume charges shown above will be adjusted annually for inflation based on the GDP Implicit Price Deflator as published annually in the Energy Information Administration's Annual Energy Outlook. The March 1, 2014 rate incorporates the inflationary adjustments from the original 2012 rates. The first inflationary rate adjustment will take place January 1, 2015, with adjustments occurring January 1 of each year thereafter. The 2018 Fixed and Volume charges will go into effect on January 1, 2018 and remain in effect until superseded by MCSD Board action.

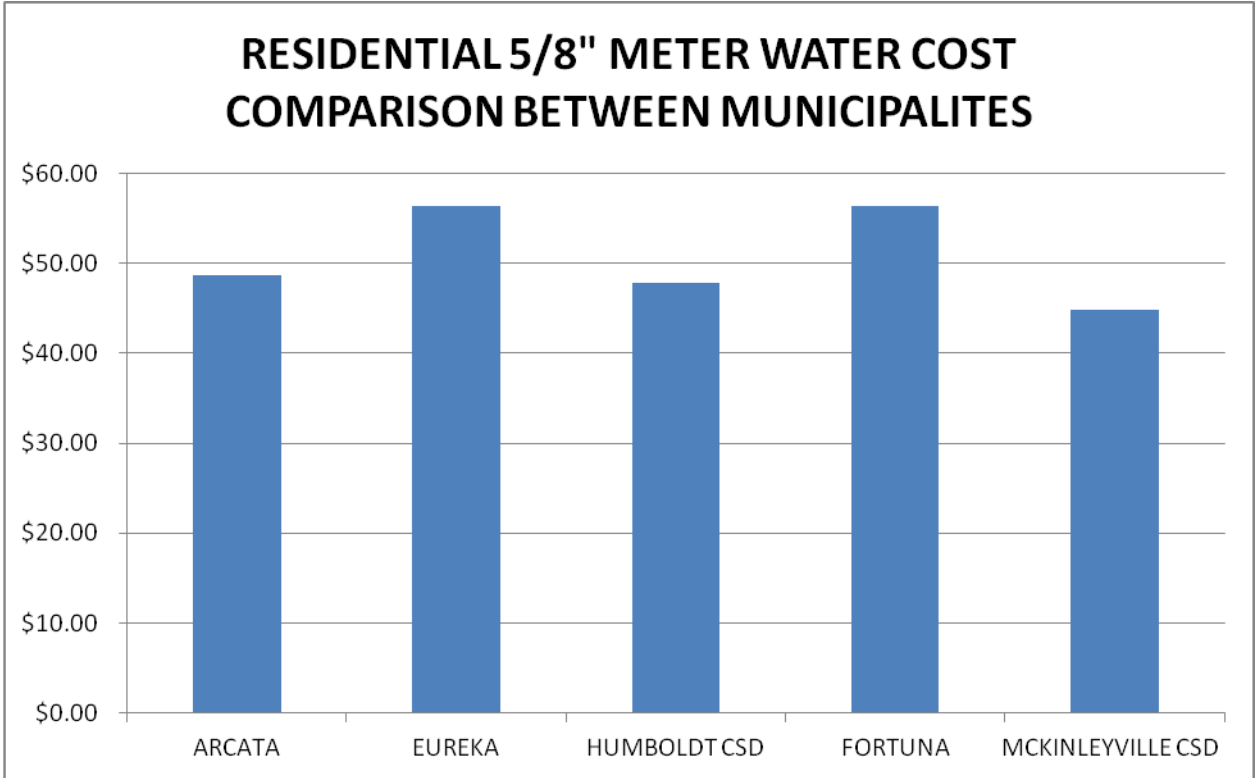
In addition, the Recovery Surcharge will go into effect March 1, 2014 and will continue until Fiscal Year ending June 30, 2017.

Note that, as discussed previously, the HBMWD Pass-Through Charge will also be adjusted on an ongoing basis to reflect wholesale water charges adopted by HBMWD. The first adjustment of the HBMWD Pass-Through Charge will occur July 1, 2014, with adjustments occurring July 1 of each year thereafter, coincident with HBMWD's adjustment of its wholesale rates.

Rate Comparison

While the cost structure and facilities vary greatly between water utilities, rate comparisons provide stakeholders a barometer of its rates in relation to surrounding communities. For increased application, the figure below compares agencies where HBMWD is the wholesaler, except for Fortuna. The figure provides the estimated monthly bill for typical household’s consumption (12 HCF).

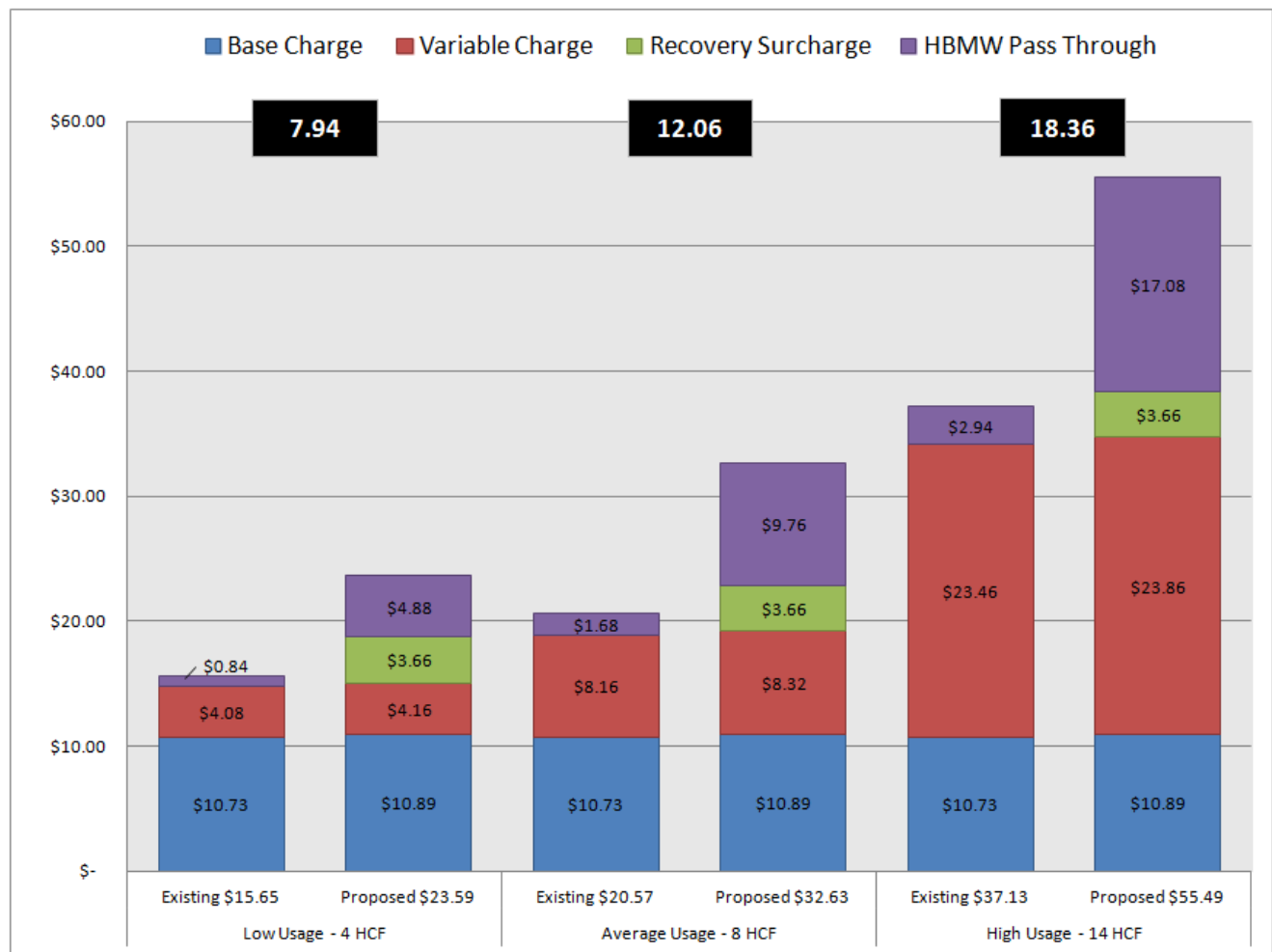
Figure 1-4: Single Family Regional Rate Comparison for 12 HCF of Consumption



# Customer Impacts

The recommended rates will provide MCSD with the necessary revenue to provide continue quality service, without a significant impact on the average ratepayer. The figure below provides a combined water sample bill for a variety of single-family consumption levels. The black boxes represent the difference between the existing and proposed March 1, 2014 rates for three different levels of consumption.

Figure 2-1: Single-Family Monthly Bill Comparison



# Appendix A - 2012 Water and Sewer Rate and Financial Analysis – Final Report

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