

# **KIRKWOOD MEADOWS PUBLIC UTILITY DISTRICT RATE STUDY – 2017**

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## **EXECUTIVE SUMMARY**

The Kirkwood Meadows Public Utility District (District) Board established a set of Principles and Goals at a Rate Strategy Workshop held on December 23, 2013 (see attached). The Principles as outlined state, in part:

1. Each Fund must operate as a standalone entity, with no subsidies except for Property Taxes.
6. Set rates for each Fund to cover Operating Expenses (including depreciation), Reserve Contributions and Capital Expenses, taking into account the annual allocation of Property Taxes.

Historically, the Water and Wastewater departments have not been self-sufficient, and rely on Property Tax revenue to keep them operating without a deficit. At a Special Board Meeting held on December 28, 2015 (see attached) the Board directed Staff to:

Standardize the methodology of calculating Base Rates for four major departments: Electric, Propane, Water and Wastewater. Currently Electric, Propane, Residential Water and Wastewater use a flat base rate across all users, while Commercial Water and Wastewater use EDUs (Equivalent Dwelling Units) to scale the Base Rate based on system usage.

In 2016 the District changed the methodology of calculating Base Rates for the Electric and Propane departments from a fixed rate charge to a usage-based charge.

In line with these Principles, the 2017-2021 District budget calls for an 8% annual increase over the next three years for the Base Rate and the Usage Rate of the Water and Wastewater departments. The rate for the Solid Waste department is to increase by 4% annually for three years.

In the hopes of reducing the amount of these increases, the Board directed staff to look at General and Administrative allocations and department efficiencies, to determine if there were areas of potential savings.

In the 2016-2017 General Manager Objectives, the Board listed the following two goals related to Rates:

1. Revise the Methodology for calculating Base Rates for the Water and Wastewater Departments to make them consistent with the Electric and Propane Departments.
2. Revise the Rates for Water, Wastewater, Irrigation and Solid Waste Departments to achieve the operating results in the 2016-2017 District Budget.

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To achieve these objectives, this Rate Study recommends:

1. That the methodology for calculating Water and Wastewater Base Rates be changed from a flat rate to a rate based on usage, similar to the system used by the Electric and Propane departments;
2. That the allocations for General and Administration Expenses be changed to better reflect the time spent in support of each department;
3. That Wastewater Usage Rates be adjusted to achieve a 7.5% increase in revenue annually for three years to make this Department more self-sufficient;
4. That Water Usage Rates, including Irrigation be adjusted to achieve a 4% increase annually for three years to make the Water Department self-sufficient; and
5. That the Solid Waste Base Rate be increased by 4% annually for three years to keep this department self-sufficient.

Following are details supporting each of these recommendations.

## **INTRODUCTION**

The Kirkwood Meadows Public Utility District (District) was formed in 1985 by an act of LAFCO (Local Agency Formation Commission) to provide Water and Wastewater services to the community of Kirkwood, California.

Over the years, the District has taken on many other functions, both Enterprise departments (services for which fees are paid), and Governmental departments (services performed for the public good). Following is a list of the major departments of the District:

<b>Enterprise Fund</b>	<b>Government</b>
Water	Fire Department
Wastewater	Parks and Recreation
Solid Waste	Mosquito Abatement
Electric	Cable Administration
Propane	
Snow Removal	

The District also owns and operates an Employee Housing complex for its staff members.

The District is governed by a five-member Board of Directors (Board) elected by registered voters in the District to serve staggered four-year terms. The Board Members are:

Robert Epstein, President  
Eric Richert, Vice President  
Standish O’Grady, Treasurer  
Peter Dornbrook, Secretary  
Geoffrey Smith, Assistant Secretary

The District is funded through charges for services provided, and through Property Taxes. The District receives 20% of the property taxes collected in Kirkwood by Alpine, Amador and El Dorado counties. The Board has broad discretion on the use of these property taxes, and utilizes the funds to:

1. Ensure the Electric Loan covenants are covered.
2. Cover any cash losses in departments.
3. Fund capital improvements.
4. Fund a cash reserve.

The Board adopts a budget annually for all departments, and the General Manager monitors procedures to assure that expenditures of the District do not exceed the appropriations by department and/or Enterprise of the major summary categories (salaries and benefits, operating services and supplies, capital outlay, and capital improvement projects) in conformance with the adopted policies set by the Board.

## **WATER/WASTEWATER BASE RATES**

The goal is to revise the methodology for calculating Base Rates for the Water and Wastewater Departments, to make them more consistent with the Electric and Propane Departments.

In 2016, the District revised the methodology for calculating Electric and Propane Base Rates. In the past, each customer paid one fixed amount Base Rate monthly. Several inequities were noted with this system, including that each account paid the same Base Rate, no matter how much usage is associated with the unit, even though a larger user has a much greater impact on operations. The District developed a system whereby customers are charged a Base Rate correlating to the overall average usage over the last three years. Now if a customer's usage is at or below the average, they continue to pay one Base Rate. If a customer's usage is above the average, they pay an increased Base Rate calculated to the one decimal point (i.e., 1.1).

In 2017 the District plans to make a similar change to the Water and Wastewater Departments. Currently, Water and Wastewater Base Rate calculations fall into two categories, Commercial and Residential.

Currently, Commercial Base Rates are calculated by taking the 3-year usage history of a commercial customer, divided by the average annual residential usage. This establishes the number of Base Rates to be charged. Commercial restaurant Wastewater accounts are charged an additional 1.57 multiplier due to the strength of their waste stream and impacts on the collection and treatment facilities.

Residential Base Rates are currently at set fixed rate of \$34.75 for Wastewater and \$25.84 for Water per month.

The plan is to eliminate the distinction between Commercial and Residential accounts and charge all customers Base Rates calculated on their usage over the last three years, divided by the residential usage average. The 3-year usage is used to allow for fluctuations in usage patterns. Strength charges would still apply to commercial Wastewater restaurant accounts.

The monthly residential average over the time period of June 30, 2015 and July 1, 2016 was 91 cubic feet. This average will be divided into each customers three-year average to determine their Base Rate charge.

Currently the Wastewater Base Rate fixed charge is \$34.75. Under this system, the Base Rate goes down to \$33.04 while collecting the same amount of overall revenue plus the annual 1% Consumer Price Index increase.

Currently the Water Base Rate fixed charge is \$25.84. Under this system, the Base Rate goes down to \$24.56 while collecting the same amount of overall revenue plus the annual 1% Consumer Price Index increase.

This approach is recommended because:

- The Base Rate for the Average customer goes down;
- Customers would pay Base Rates based on their usage and impacts to the overall system;
- The distinction between Commercial and Residential customers will be eliminated;
- Water Conservation would be encouraged.

## GENERAL AND ADMINISTRATION ALLOCATIONS

General and Administration expenses are those that benefit and support all the departments. The District's General Manager, Administration staff, and the Board of Directors are primarily budgeted in the General and Administration (G&A) department. Their labor costs, payroll taxes and fringe benefits are part of the G&A department. Other common expenses incurred by the District that benefit the District as a whole are also budgeted in G&A. **A list of these expenses is attached.** 100% of these monthly expenses are then allocated out to other departments. The allocations out of G&A are based on management's assessment of benefit. Funds or departments that are complex and require continuous oversight receive a larger allocation than those departments that are simple and self-sufficient. For example, the Cable Fund has little activity and receives a very small portion of the G&A allocation. Conversely, the Electric Fund is complex. There are monthly billings, collections, ongoing construction projects, and ongoing financing needs and options. This Fund receives a larger percentage of the G&A expenses.

District management has re-evaluated the allocations for each department based on their impact on Administration. Now that the District has several years of experience running the Electric and Propane departments, we can now determine the effort required.

The following table shows the existing G&A Allocations, and the change that management deems necessary:

<b>Fund</b>	<b>Current</b>	<b>New</b>
Fire	7%	8%
Mosquito Abatement	1%	1%
Parks & Recreation	1%	1%
Water	18.25%	16%
Wastewater	18.25%	16%
Employee Housing	2%	3%
Electric	18.25%	24%
Cable	1%	1%
Snow Removal	11%	10%
Propane	18.25%	16%
Solid Waste	4%	4%
	100%	100%

## WATER USAGE RATE

With the aforementioned change in the Allocation of General and Administration expenses, the Water fund presents a much more positive outlook for achieving self-sufficiency. However, many challenges remain including the need for an additional Water Tank to meet future capacity and fire flow needs.

Currently, monthly Water Rates for FY 2017 are:

Base Rate	\$25.84
Usage Rate	\$4.13 per 100cf
Meter Rate	\$3.30

The 2017-2021 District Budget calls for an 8% annual increase over the next three years for both the Base Rate and the Usage Rate.

The 2016-2017 General Manager Objectives calls for a Water Rate increase sufficient to achieve the operating results in the 2016-2017 District Budget (see attached 2017-2021 Water Summary). This summary shows the Water Fund Revenues in Excess of Expenses Without Depreciation at:

2018	(\$43,814)
2019	(\$8,917)
2020	\$29,727

Property Tax funds are budgeted to subsidize the department to break even on a cash basis.

To determine the impact various rate increases may have, District staff developed the attached Water Comparison spreadsheet. The first line shows the impact of the budgeted 8% increase in Water Base and Usage charges, without a change in G&A allocations. The next four lines demonstrate the impacts of four different percentage increases (0%, 4%, 6%, 8%) with the allocation change.

This Study recommends a 4% increase in Water Revenues through a Rate increase annually for a period of three years, as this results in:

- A positive Net Income Without Depreciation each year.
- Reduces the Property Tax Allocation.
- Eliminates the need for any Electric loan.
- Gets the Water Fund well on its way to becoming self-sufficient, especially with the COP Loan being paid off in 2024.

The current Water revenue stream receives 86.8% of revenues from Base Rates and only 13.2% from Usage charges. This structure does not promote conservation and does not distinguish those with a greater impact on the system. The Board would like to reverse this trend and place more of the revenue stream under Usage charges. To move in this direction, this Rate Study looked at

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placing the entire increase on the Water Usage Rate while still achieving the 4% revenue increase. Water Usage Rates are comparatively very low and have only been in existence for a few years. The current Water Usage Rate is \$4.13 per 100 cubic feet and will need to be increased by 34% to achieve the desired 4% increase in Water Revenues.

Water Usage and Base Rates over the next five years are recommended to be set at:

	2017 Current	2018	2019	2020	2021	2022
Base Rate	\$25.84	\$24.56	\$24.81	\$25.05	\$25.30	\$25.56
Usage Rate Per 100 cf	\$4.13	\$5.58	\$7.53	\$10.16	\$10.26	\$10.37

## WASTEWATER RATE

The Wastewater Department has a very extensive and expensive Capital Plan over the next five years as the attached illustrates. Even though the aforementioned Allocation shift of General and Administration expenses will have a positive impact of Wastewater expenses, the department faces an uphill battle to achieve self-sufficiency (see attached Wastewater Fund Summary).

Currently, monthly Wastewater Rates for FY 2017 are:

Base Rate	\$34.75
Usage Rate	\$22.57 per 100cf

The 2017-2021 District Budget calls for an 8% annual increase over the next three years for both the Base Rate and the Usage Rate.

The 2016-2017 General Manager Objectives call for a Wastewater increase sufficient to achieve the operating results in the 2016-2017 District Budget (see **attached 2017-2021 Wastewater Summary**). This summary shows the Wastewater Fund “Revenues in Excess of Expenses Without Depreciation” at:

2018	\$2,727
2019	\$82,606
2020	\$157,573

This also requires Property Tax allocations of:

2018	\$44,412
2019	\$101,500
2020	\$15,000

This budget also requires a loan from the Electric Department growing to \$253,196. This loan would begin to be paid off once the COP loan is paid off in 2024.

The 2017-2021 Budget calls for \$154,000 in Capital Improvements. Due to the Atmospheric River weather events of this winter and the associated storm water intrusion into the Wastewater Collection System, it has been determined that additional improvements are needed, primarily to the Wastewater Collection System, Emergency Pumping, SCADA System and to the Wastewater Treatment Plant. The revised 2018-2022 Capital Plan (see attached) calls for \$467,500 in Capital improvements. This rate increase is needed to help pay for these needed improvements.

To determine the impact various rate increases may have, District staff developed the **attached Wastewater Comparison spreadsheet**. The first line shows the impact of an 8% increase in Wastewater Revenue, without a change in the G&A allocations. The next four lines demonstrate the impacts of four different percentage increases (0%, 4%, 6%, 8%) with the Allocation change.

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In these four scenarios, we left the Electric Loan constant to measure the impacts on the other categories.

Staff recommends a 7.5% increase in Wastewater Revenue annually for a period of three years, as this results in:

- Achieves the following Revenues in Excess of Expenses Without Depreciation:

	Current	Proposed
2018	\$2,727	\$42,135
2019	\$82,606	\$120,936
2020	\$157,153	\$217,060

- Reduces the needed Property Tax/ Other Department subsidies from \$492,091 to \$381,522 over the five-year period.
- Helps fund the needed Capital improvements.
- Gets the Wastewater Fund moving in the direction of self-sufficiency.

The current Wastewater revenue stream receives 63.6% of revenues from Base Rates and 36.4% from Usage charges. This structure does not promote conservation and does not distinguish those with a greater impact on the system. The Board would like to reverse this trend and place more of the revenue stream under Usage charges. To move in this direction, this Rate Study looked at placing the entire increase on the Wastewater Usage Rate while still achieving the 7.5% revenue increase. The current Wastewater Usage Rate is \$22.57 per 100 cubic feet and will need to be increased by 19% to achieve the desired 7.5% increase in Wastewater Revenues.

Wastewater Usage and Base Rates over the next five years are recommended to be set at:

	2017 Current	2018	2019	2020	2021	2022
Base Rate	\$34.75	\$33.04	\$33.37	\$33.70	\$34.04	\$34.38
Usage Rate Per 100 cf	\$22.57	\$27.08	\$32.50	\$39.00	\$39.39	\$39.78

## **SOLID WASTE BASE RATE**

The District has been providing Solid Waste services to customers since 1996.

As the **attached Solid Waste summary** details, the Department lost money in 2016 due to rising costs of disposal services and Salaries & Wages. To offset this trend, the 2017-2021 Budget calls for a 4% annual increase beginning in 2017 and continuing for three years.

After this increase, the Department begins to post a positive net income/loss and begins to build an Operating Reserve.

## **IRRIGATION WATER RATE**

Part of Water Department revenues come from Irrigation water sales, which is water provided to customers for landscape purposes (which does not enter the Wastewater collection system).

As the attached Water Summary shows, the Department lost money in 2016 and continues this trend into 2017 due to rising costs of Utilities and Salaries & Wages.

To help offset this trend, the 2017-2021 Budget calls for a 8% increase in the Irrigation Rate beginning in FY 2017 and continuing for three years.