



# KIRKWOOD MEADOWS PUBLIC UTILITY DISTRICT

## **ANNUAL REPORT**

**JULY 1, 2016 – JUNE 30, 2017**

P.O. Box 247, 33540 Loop Road  
Kirkwood, California 95646  
[www.kmpud.com](http://www.kmpud.com)

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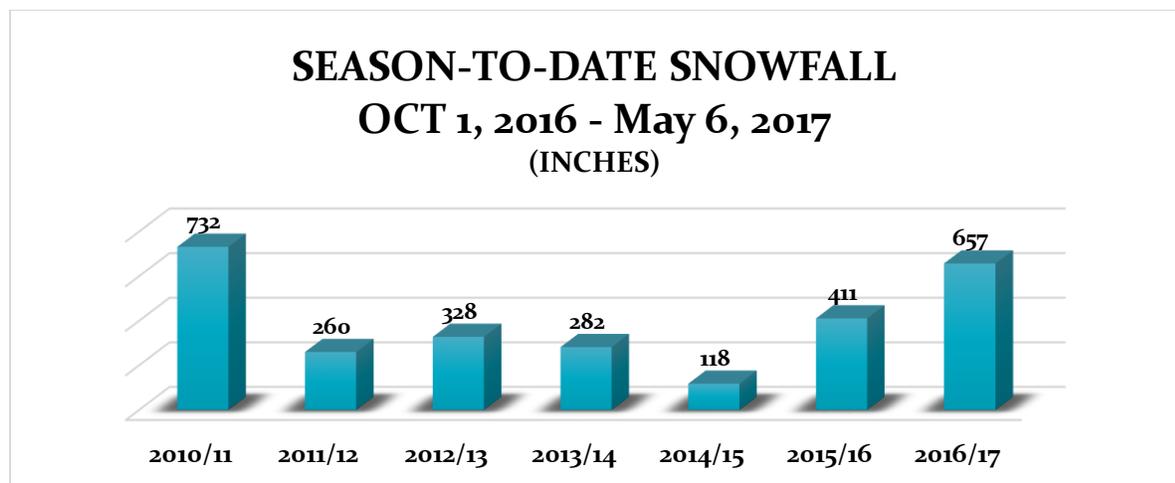
September 5, 2017

To Our Valued Customers:

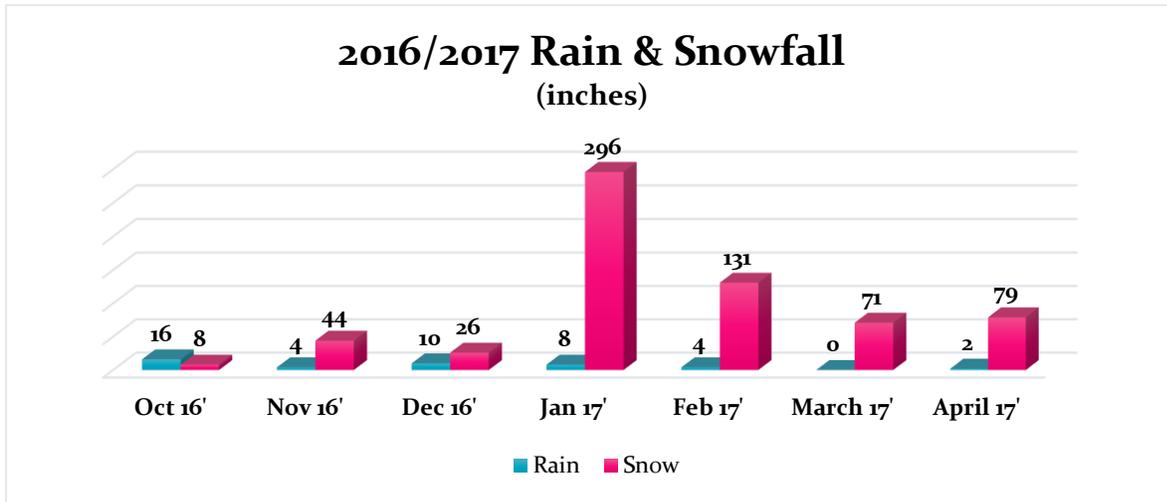
The Kirkwood Meadows Public Utility District (District) is pleased to present the 2016-2017 Annual Report, a synopsis of the year just passed and important issues the District will be focusing on moving forward. The District operates on a fiscal year basis, and the report covers the period of July 1, 2016 through June 30, 2017.

The District has strong financial results due to a good ski season and despite the extraordinary events from extreme snowstorms and rain. Unaudited financial results show revenues of \$9,448,040 that were \$784,363 better than plan. Revenues were \$408,000 better than the previous year. We had unanticipated expenses of \$362,211 of which over \$200,000 were due to weather related damages. The net result was a profitable year allowing us to increase our cash reserves. Our financial goals include having reserves to manage through multiple years of drought and having each utility service cover its own costs so one is not subsidizing another. The extreme weather resulted in many issues that will be discussed in this report and has changed much of our planning so we will be prepared to handle more winters like this year's.

As has historically been the case, the weather once again tops the list of the main stories coming out of the year. The winter produced significant snow fall (657 inches) as compared to the last five years, but not a record and not as much as the mammoth year of 2010-2011.



What the winter of 2016-2017 will be remembered for is the total amount of precipitation. With 657 inches of snow AND 42 inches of rain, 2016-2017 set a new record for precipitation received. January 2017 set a snowfall record with a total of 296 inches received.



The intensity and amount of precipitation received caused many issues throughout the Kirkwood community. Early in the fall, a severe wind storm knocked down one of the towers of Chair 6, making the resort scramble to install a replacement in time for opening day.

Then, through the period of January 8<sup>th</sup> through 13<sup>th</sup> Kirkwood received 16 feet of snow and 8 inches of rain. Kirkwood experienced a blizzard, a flood, power outages, a fire and avalanches. The weather stressed the District's infrastructure and capabilities to the limit, only to be repeated in February. Another rain-on-snow event occurred on February 7<sup>th</sup> and 8<sup>th</sup> which inundated the Wastewater Treatment Plant with storm water. This prompted a one-day closure of the ski resort and emergency notices sent to District customers asking them to limit water use and to delay their trip to Kirkwood until the weather subsided.

Later in the year, two homes were destroyed by fire. Though the exact cause of the fires is unknown, we believe that snow accumulations and propane had an impact on both. Through inspections and notifications to residences, the District has identified potential fire risks and strongly encouraged everyone to remedy potential safety hazards. All of this extreme weather had an impact on the District's infrastructure and changed the way we think about capacity especially in regards to wastewater and propane.

This summer the District undertook a large hydro cleaning and televising project in our Wastewater Collection System to determine where the stormwater is entering the disposal lines and undertaking necessary repairs. This will be an ongoing annual project until the system is at an acceptable level.

One of the issues living in a remote community like Kirkwood is the need to have adequate propane storage on site in the event of a road closure, blocking the supply route. There is no good scenario if the Valley runs out of propane.

We currently have enough propane storage to provide propane at peak demand through a five-day road closure. Next summer, the District plans to install an additional propane tank to expand storage to meet demand through a seven-day closure.

Part of the propane system is the Water Bath Vaporizer equipment located on Loop Road, used to maintain system pressure. There is critical need to protect this vital equipment from the elements and the District is investigating options. The options include a three-sided metal shed enclosure over the equipment and re-grading the area to allow for snow removal activities.



### **Vaporizer Equipment Concern**

During the January storm, a tree fell on the Out Valley 34.5kV electrical line necessitating the use of the Powerhouse for eight days until extensive and expensive repairs could be completed. This is the second tree that has taken down this line in three years. Due to this, the District, in cooperation with the Forest Service and PG&E, will be completing a thorough survey of the trees along this line and thinning out any that appear damaged or diseased. Besides this instance, the Out Valley power line operated without flaw. Once again, the District experienced no power outages during lift operations, for the third year in a row! Kirkwood is the only resort in California with 100% backup in the event of a power failure on the grid.

Even with the amount of snow received, the road closures and the associated problems, Kirkwood had a busy season and District revenues again surpassed the \$9M dollar mark.

Reducing electric rates remains a priority for the District. The fundamental problem is the very high fixed costs spread across a very small customer base. Good weather and the resulting healthy ski season will allow the Board to continue to reduce rates. For 2017-2018, the Board authorized a reduction in Electric Usage rates, from \$0.67 to \$0.66 per kilowatt hour. The goal is to continue to reduce the usage rate by at least \$0.01 per kilowatt hour each year.

The District's Board felt it was imperative to raise rates for several departments that have historically been losing money and face serious capital repair costs needed after the wet winter of 2016-2017. At a Special Meeting held on June 3, 2017, the Board approved rate increases in each of the next three years to achieve a 7.5% annual increase in revenues for the Wastewater Department, a 4% annual increase in revenues for the Water Department, an 8% annual increase in the Irrigation Water Usage rate and a 4% annual increase in the Base Rate in the Solid Waste Department. These changes will become effective on September 1, 2017 and will enable these departments to achieve a positive cash flow and fund the required repairs over the next several years.

The District is still in negotiations with PG&E to resolve the cost of ownership of the 115kV line. The original Interconnection Agreement provided that KMPUD would build a 115kV line and deed it to PG&E. This would have major negative cost implications for the District due to the high construction cost of the 115 kV line. The revised Interconnection Agreement provides for the District to retain ownership of the 115kV line. However, PG&E feels we need to establish a point of interconnection (switch station) at Salt Springs Reservoir to isolate the PG&E electric system from the District's system. The District is looking at alternatives to avoid installing this expensive equipment and minimize annual maintenance payments to PG&E.

A major goal – and accomplishment – for this year was to improve snow removal services and to be more responsive to customer needs. Position tracking GPS units were installed in all District snow removal equipment and integrated software was installed so that the District can track our equipment throughout the valley. These devices have been used to equitably adjust snow removal contracts based on time spent and to enable homeowners to make online requests for their driveway be plowed and to receive automatic notification when it is done.

If you haven't done so already, we highly recommend you sign up at [www.kmpud.com/register](http://www.kmpud.com/register) as an account holder where you will be able to access your monthly billings and current meter information, receive emergency notifications, newsletters and agendas, and be part of and access the Kirkwood Directory.

Vail Resorts continues to deal with the asphalt grindings (defined as processed pavement materials containing a mixture of petroleum-derived asphalt, gravel and sand) that were blown off the parking lots and into stream zones. Specific sensitive areas have been identified which can no longer be used for snow storage and this has seriously challenged the ski resort to provide adequate parking during busy days.

The District relies on five Standing Committees established by the Board of Directors (Finance, Operations, Planning, IT and Personnel) to help guide its operations and make strategic recommendations. The IT Committee currently has openings for Community Members with expertise and interest in this area. Community participation and input is a vital component to the performance and results achieved from the District's Committees, and we are actively seeking Kirkwood residents, landowners and ratepayers to provide perspective and expertise otherwise not readily available to the Board. The District encourages your participation. Much more information on the Standing Committees can be found at [www.kmpud.com](http://www.kmpud.com).

This was also the year that our General Manager, Michael Sharp announced his retirement effective September 11, 2017. On behalf of the entire community, the staff and the Board of Directors, we want to thank Michael for over 20 years of service to the District and we wish him the very best in his retirement. The Board of Directors is pleased to announce the appointment of Erik M. Christeson, P.E. as the District's next General Manager effective September 18. Mr. Christeson comes to us from the Amador Water Agency and is looking forward to leading the District in its critical role serving the community.

Overall, the District had a sound financial and operational year. Many issues remain, but we feel we are on a solid path in continuing to provide reliable services while focusing on lowering rates and finalizing the Out Valley project.

Following are details regarding the subjects touched on above, and many others.

Please don't hesitate to contact the District for further details.

Sincerely,

Bob Epstein  
President

**Kirkwood Meadows Public Utility District Board of Directors**

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## **DISTRICT OPERATIONS**

The Kirkwood Meadows Public Utility District (District) was formed in June 1985 as a public municipal corporation under the California Public Utilities Code, after detachment from the El Dorado Irrigation District. The District's service area encompasses 1.875 square miles and includes approximately 239 single family homes and 475 multifamily residential units, in addition to commercial facilities owned and operated by the ski resort and others. The 2003 Kirkwood Specific Plan allows for a total of 1,413 residential units at build out covering 732 acres of privately held land.

Since the purchase of Mountain Utilities in 2011, the District provides the following services to the community and commercial enterprises in Kirkwood:

- Electric
- Propane
- Wastewater
- Snow Removal
- Water
- Solid Waste Removal
- Fire Protection
- Employee Housing
- Cable Television Administration
- Mosquito Abatement
- Parks and Recreation Services

Following is an update on the District's Financials and all the services that the District provides.

## **FINANCIALS**

In fiscal year ended (FYE) 2017 total revenues (\$9,448,040) including property tax topped \$9 million for second year in a row. Total revenues for FYE 2016 were \$9,040,475. This continued good performance can be attributed to a record year of snowfall. January 2017 was the highest monthly snowfall total ever recorded in Kirkwood.

Managing operating expenses for FYE 2017 was a difficult task. The District experienced unforeseen expenses related to the Out Valley transmission line including repairs due a tree down on the line and freezing issues with our T-1 fiber optic communications line. We also had flooding during the rain-on-snow events that occurred in January and February. The District has put in claims with the Federal Emergency Management Agency (FEMA) as these events were considered natural disasters. Below, is a table listing some of the unbudgeted expenses that were caused by these major events.

T-1 Line Freezing	\$23,695
January & February 2017 Rain/Snow Events	\$34,339
Downed Out Valley Line	\$39,949
Powerhouse Costs During Outage	\$62,152

The District's Cushion of Credit account has earned over \$77,000 in interest for this fiscal year. This account, with the U.S. Department of Agriculture's Rural Utilities Service (RUS), allows the District to make advance deposits for interest and principal payments on our RUS loans while earning 5% on those advance deposits. The District's goal is to keep a balance of \$1.3 million in this account for future payments while maintaining a minimum amount of \$1 million in our regular Operating Account.

The table below is a snapshot of the District's revenues and expenses for this reporting period compared to the prior year:

	<b>FYE 2016</b>	<b>FYE 2017</b>	<b>Change</b>
Operating Revenues	<b>\$9,040,475</b>	<b>\$9,448,040</b>	<b>\$407,565</b>
Operating Expenses	<b>\$7,761,205</b>	<b>\$8,473,724</b>	<b>\$712,519</b>
Property Tax Revenue	<b>\$822,061</b>	<b>\$826,148</b>	<b>\$4,087</b>
Non-Operating Revenues	<b>\$260,960</b>	<b>\$77,387</b>	<b>(\$183,573)</b>
Non-Operating Expenses	<b>\$2,198,808</b>	<b>\$2,067,634</b>	<b>(\$131,174)</b>
Net Income	<b>(\$206,221)</b>	<b>\$175,864</b>	<b>\$382,085</b>

The increase in operating revenues from FYE 2016 to FYE 2017 in the table above is due to increased utility sales from a busy ski season, while the increase in operating expenses is largely due to the additional expenses associated with the eventful winter of 16-17. Also, reflected in the FYE 2017 operating expenses is a \$55,000 payment to CalPERS to reduce our unfunded liability. The reduction in non-operating revenues seen above is due to the contribution of infrastructure that came with the new development of Timber Creek Townhomes, which increased non-operating revenues in FYE 2016.

Operating Revenues are the payments that the District receives for the nine services that it provides to its customers: electricity, propane, water, wastewater, snow removal, solid waste, fire protection, employee housing and cable television. Operating Expenses are the direct expenses (primarily cost of goods sold and salaries & wages) and the General and Administrative overhead expenses for providing these services including depreciation. A change was made this year in how employee benefits is recorded for Electric, per RUS accounting standards. Previously, all Electric benefits were recorded in a single fund, but now the benefits are included in Salaries and Wages and split between projects. Non-Operating Revenues include payments for Connection Fees, Investment Income and Contribution Revenues (contribution revenues are infrastructure additions that are deeded to the District from any new developments as well as any donated equipment) received by the District. Non-Operating Expenses consist of Interest and Amortization expenses.

The District’s audited financial statements<sup>1</sup> for FYE 2016 can be found at: <https://www.kmpud.com/wp-content/uploads/2013/04/Kirkwood-Meadows-PUD-2016-Audit.pdf>. FYE 2017 audited financial statements are scheduled to be available in October.

**Property Tax**

The District receives 20% of the property tax revenue collected in Kirkwood from each of the Counties (Alpine, Amador and El Dorado) to help fund operations. The Board’s goal is to have all enterprise funds (Water, Wastewater, Electric and Propane) be primarily funded through service charges paid by customers, so that property taxes can be used to assure compliance with our RUS loan requirements, which require a 1.05 TIER ratio, and to help fund capital projects. A substantial allocation of property tax revenue to Electric was required in December 2016 in order to comply with the terms of our loan from RUS. Following is a breakdown of how these property taxes are estimated to be allocated for the 2016-2017 fiscal year:

<b>DEPARTMENT</b>	<b>PROPERTY TAX ALLOCATION</b>
Electric	\$465,000
Wastewater	\$140,817
Fire	\$108,190
Water	\$37,193
Employee Housing	\$33,856
Parks & Recreation	\$24,226
Mosquito Abatement	\$16,866
<b>TOTAL</b>	<b>\$826,148</b>

**Connection Fees**

Connection fees are fees paid by new development for infrastructure needed to service that development. A “Schedule of Connection Fees and Services” can be found on the District’s website at <https://www.kmpud.com/new-development/>.

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<sup>1</sup> The District’s audited financials differ from our operating results (including all interest, taxes, depreciation and amortization expenses) due to formatting and to the recently required application of GASB 68: [http://www.gasb.org/jsp/GASB/Pronouncement\\_C/GASBSummaryPage&cid=1176160219492](http://www.gasb.org/jsp/GASB/Pronouncement_C/GASBSummaryPage&cid=1176160219492).

### ***Rate Study – Water, Waste Water, Irrigation & Solid Waste***

The District completed a restructuring of its Rate Structure, raising its Water, Wastewater, Irrigation and Solid Waste service charges to make these departments more self-sufficient and raise funds to pay for capital improvements needed after the historically wet winter of 2016-2017. At a Special Meeting held on June 3, 2017, the Board approved rate increases in each of the next three years to achieve a 7.5% annual increase in revenues for the Wastewater Department, a 4% annual increase in revenues for the Water Department, an 8% annual increase in the Irrigation Water Usage rate and a 4% annual increase in the Base Rate in the Solid Waste Department. These changes will become effective on September 1, 2017 and will help these services achieve the positive cash flows needed for capital replacement projects. Further information on this increase is posted on the District's website at [www.kmpud.com](http://www.kmpud.com).

Effective July 1, 2017, Electric Usage charges were reduced from \$0.67 per kilowatt hour to \$0.66 per kilowatt hour. The District Budget for the 5-year period of 2017-2021 anticipates the Electric Usage Rate lowering by \$0.01 per kilowatt hour each year for the next five years.

## **WATER OPERATIONS**

### ***Description***

The District's domestic water is supplied by four groundwater wells located throughout the Kirkwood Valley, with a combined capacity of 225 gallons per minute or 324,000 gallons per day. The system includes two storage tanks with a capacity of 950,000 gallons, and the distribution system consists of approximately five miles of pipelines ranging from six to ten inches in diameter.

### ***Operations***

The District is permitted to operate its water system based on certifications from the California Regional Water Quality Control Board, and issues an annual Consumer Confidence Report with test results from samples taken throughout the Valley to ensure water quality for our customers continues to exceed standards as set forth in the Federal Safe Drinking Water Act.

### ***Governor Jerry Brown Announces End of Drought Emergency***

On April 7, Governor Jerry Brown issued an executive order lifting the emergency drought restrictions for most of the state, but keeps in place prohibitions against wasteful water use, including outdoor watering during or within 48-hours of a rain event, cleaning a sidewalk with a hose instead of using a broom and overwatering landscaping to the point that water is running onto the sidewalk or street. In conjunction with Governor Brown's executive order the District reminds customers to always be mindful of their water use and conserve when possible.

District water operations continues the practice of using the Well 4 and 5 aquifers as water storage by limiting use of Wells 4 and 5 during low consumption, thereby increasing the aquifer levels for future high demand and possible return of drought conditions.

### ***January 2017 Maximum Contaminant Level Violation and Level 1 Assessment***

In late January 2017, the District's domestic water system failed the maximum contaminant level (MCL) for total coliform bacteria indicative of the water quality standards for bacteriological quality as prescribed by the California Domestic Water Quality and Monitoring Regulations. The presence of coliform in routine samples necessitated the issuance of a MCL Violation Notice to all customers of the District's water system. The violation also initiated a required Level 1 Assessment of the District's drinking water system. Although the presence of bacteria is not

indicative of contamination, and the majority of bacteria present in drinking water are not harmful, the presence of any bacteria in drinking water indicates the potential for contamination. All samples that were tested were absent for fecal coliform.

There could be several reasons for the violation in January. One possible cause could be the extreme weather conditions present in January during the scheduled sampling activities. District staff takes great care to ensure samples are collected properly, but it can be challenging during winter months in snow or rain conditions since the sample draw is taken from fire hydrants throughout the Kirkwood valley. Other factors that might have caused the violation include; a mechanical issue with the chlorine injection system, sample collection errors, and outside laboratory errors.

The District immediately acted and thoroughly inspected the water distribution system finding no problems. District Staff also flushed the water distribution system along with purchasing a new chlorine pumping system to ensure the disinfection system is working as designed. Well #2 was disinfected and thoroughly flushed. Sampling procedures were reviewed and training conducted on the proper method of taking and handling samples. Further, the District retested for total coliform bacteria in accordance with the requirements of the State Water Resources Control Board Division of Drinking Water and all repeat samples received in early February 2017, and since that time were found to be absent for total coliform bacteria, indicating there are no longer any contamination issues in the distribution system. Additionally, the District performed a Level 1 Assessment of the drinking water system as mandated by the Revised Total Coliform Rule.

#### ***Capital Improvements in FY 2016-17***

Capital improvements for the Water Department included the routine replacement of some fire hydrants and radio replacements.

#### ***Future Water Needs***

Total water demand for the District varies from 12 to 15 million gallons per year at the current 50% build-out of the community, or approximately 700 equivalent dwelling units. The Services Capacity Analysis completed in 2014 predicts the District will have a deficit of 217,400 gallons per (peak) day at build out. The District has been exploring the ability to develop additional water sources to augment its supply, including drilling additional wells and obtaining surface water rights from Caples Lake.

The Services Capacity Analysis finds that the District has a current water storage deficit of 161,250 gallons for operational, emergency and fire flow requirements. At build-out, the system will require an additional 553,400 gallons of storage. The District is investigating the installation of an 800,000-gallon water storage tank to meet these needs.

## **WASTEWATER OPERATIONS**

### ***Description***

The District's wastewater collection system consists of approximately 8.3 miles of 6-inch gravity-flow wastewater collection lines and approximately 3,600 feet of 8-inch force main sewer lines. Two lift stations transfer the wastewater to the Wastewater Treatment Plant (WWTP), which uses a Membrane Bioreactor (MBR) process to treat and then discharge the wastewater to effluent absorption beds. The MBR process is a relatively recent innovation in wastewater treatment where membrane microfiltration is used to produce a discharge effluent of very high quality. Other advantages of MBRs over conventional processes include a small footprint and easy retrofit to upgrade older wastewater treatment plants.

### ***Operations***

The District provides sanitary wastewater collection, treatment and disposal for the community of Kirkwood. The WWTP is regulated by permit under the jurisdiction of the Regional Water Quality Control Board under Waste Discharge Requirements (WDRs) Order No. R5-2007-0125. The WDRs contain monitoring and reporting requirements, which include quarterly and annual sampling of groundwater at nine locations around the Kirkwood Valley. Because Kirkwood is located in an environmentally sensitive area and the water quality in the area is pristine, the District's waste discharge requirements are some of the most stringent in the State. Additionally, the District is also required to prepare, submit and implement a Sanitary Sewer Management Plan (SSMP) to describe the maintenance and repair efforts to our Collection System.

### ***Flood Leads to Lift Station Failure***

In early January 2017, a severe rainstorm hit Kirkwood, causing catastrophic flooding which impacted several critical District facilities. The East Lift pumping station, which collects wastewater from a variety of locations throughout the valley, and delivers this wastewater to the Wastewater Treatment Plant, flooded, causing lift station control failures. This incident necessitated the notification of East Meadows and KMA residents, requesting that they not use wastewater services. The District responded to this emergency, and restored operations within 24 hours. The result of these efforts was that there were no wastewater spills during this natural disaster.

### ***Capital Improvements in FY 2016-2017***

During the 2016-2017 fiscal year the District began a project aimed at eliminating sources of Infiltration and Inflow (I/I), which is storm water and groundwater entering the wastewater collection system. I/I is particularly severe in years with rain-on-snow events, as occurred this past January and February. The District has televised and cleaned multiple collection system lines this spring and summer leading to the discovery and repair of broken lines that were a continuing source of I/I. These efforts will continue throughout 2017 and for the next several years.

### ***Future Wastewater Needs***

The Capital Plan for 2017-2018 includes continued work on I/I repairs, upgrading the absorption bed pumps, upgrading the Wastewater Treatment Plant SCADA and adding an uninterruptible power supply for critical equipment.

Long term plans to address the needs identified in the 2014 Service Capacity Analysis include:

- Flow Equalization Storage - 540,000 gallons
- Aeration Blowers for Secondary Treatment Process
- Effluent Disposal Pump
- SCADA (Supervisory Control & Data Acquisition) Upgrade and Integration

These improvements will be needed to meet build-out flows, but are all 5 years or more from being needed.

## **ELECTRIC OPERATIONS**

### **Distribution (In Valley)**

#### ***Description***

The Kirkwood In Valley electric system was acquired from Mountain Utilities in 2011 and includes 170 transformers, six circuit routing switches, 37 underground electric vaults, approximately 11.5 miles of underground circuits, and 13 aboveground line junction enclosures.

#### ***Operations***

The District is inspected regularly by the CPUC (California Public Utilities Commission) Safety Unit and conforms to the provisions found in General Order 165. During the 2016 summer, District staff conducted patrol and detailed inspections of all distribution transformers. The District's system and maintenance records were inspected by the CPUC in 2016, and only minor infractions were noted.

The District is continuing work on the Circuit Project, to trace and map out the District's main circuit lines. The Commercial and Lift Circuits have been completed, and staff is beginning work on the Residential Circuit.

#### ***Capital Improvements***

The District installed a new 750-kVa transformer at Chair 10 prior to the start of the 2016-17 ski season to help with its operation during heavy load days. The installation was successful, and Chair 10 experienced no overloading issues this winter. The District also installed faulted circuit indicators at critical points of the distribution line in fall of 2016 which will help identify the location of a fault.

This spring, District staff completed the installation of an intercept vault at the intersection of Palisades Drive and the Timber Ridge parking area, to replace an above-ground cabinet that had been crushed by snow.

#### ***Future Needs***

The Capital Plan for 2017-2018 includes the installation of two additional intercept vaults on Glove Rock Road, adding additional faulted circuit indicators to the distribution system, and the purchase of a cable tugger to assist staff in installing new electric lines. Other near-term projects include the rerouting of a distribution line at the intersection of Dangberg Road and Fremont Road and adding secondary containment to the transformer near Caples Lake spillway.

## **Generation (Powerhouse)**

### ***Description***

The District constructed and operates a 5-megawatt standby Powerhouse for use when the Out-Valley electric line is down, which occurred twice this winter. During the January rain-on-snow event, the Out-Valley transmission line was damaged and the Powerhouse was needed for a period of eight days. Then, in February, a PG&E outage required that the Powerhouse be in operation for an additional two days. The Powerhouse is equipped with three 950-kilowatt CAT generators and five 430-kilowatt Volvo generators.

### ***Operations***

The Powerhouse operates under permit with the Great Basin Air Pollution Control District (GBUAPCD) and is required to complete regular testing and reporting to maintain good standing. Testing in October 2016 verified that our emissions control equipment is working properly, and all equipment received certification from GBUAPCD.

### ***Capital Improvements***

The District is considering installing a roof over the Powerhouse radiators to mitigate snow buildup in this area. The District has installed a temporary enclosure with good results in the short term.

## **Transmission (Out-Valley)**

### ***Description***

The District officially began providing its customers with power supplied from the Western electric grid on November 1, 2014 after completing construction of two substations, 25 miles of underground power line and over 3 miles of overhead line, connecting to PG&E facilities at Salt Springs Reservoir.

### ***Operations***

Most of the District's Out-Valley Power line is on United States Forest Service (USFS) Property and the District operates under a Special Use Permit. An annual Work Plan is developed and approved by the USFS which details the necessary operations and maintenance proposed by the District. Approximately 7 miles of the underground portion of the line is in the Caltrans Highway 88 Right of Way and falls under an Encroachment Permit. The District performs routine inspections of the Out-Valley line to ensure we protect the community's investment, including invasive weed inspections, erosion control and needed tree removal.

In 2016-2017, the District had three outages on the T-1 line that provides communications between the District's two substations and PG&E. In each instance, water intruded into the conduit at a bridge crossing and froze, breaking the fiber optic cable. District staff is implementing a plan to introduce drains to the conduits to allow water to escape below the frost line.

### ***Capital Improvements***

There are two outstanding issues remaining with the Out Valley Electric Line Project. Both are issues we have with Pacific Gas and Electric (PG&E). The first is a dispute over how much of

the costs incurred to upgrade PG&E's two substations were for new equipment, and how much was used to replace existing equipment. The District contends that a certain percentage of the cost was used to replace and upgrade equipment that was in use prior to the project, and that the District should not be charged for associated maintenance costs. Both parties' engineers will be meeting to come up with an equitable solution.

The second issue involves establishing where PG&E's responsibility ends and where the District's begins. This is known as the Point of Interconnection, and is currently located at Salt Springs Reservoir. PG&E does not want any potential liability associated with any portion of our line, which they believe they have with our current situation with the 115kV line. One solution, which the District is trying to avoid, is for the District to build a Switch Station at the Salt Springs Reservoir, establishing a clear Point of Interconnection. The cost for this switch station is estimated at \$3.3 million. Another solution is for the District to deed the 115Kv line to PG&E provided a reasonable value can be agreed upon. The likely worst-case financial assumptions are included in our 5-year budget model.

### ***Future Needs***

The Capital Plan for 2017-2018 includes improving the drainage at the T-1 line bridge crossings to prevent damage from water intrusion and freezing.

## **PROPANE OPERATIONS**

### ***Description***

The District's propane assets include approximately 5 miles of underground distribution lines ranging in diameter from 2-6 inches and are located throughout the Kirkwood Valley. Propane assets include two storage tanks (one 20,000-gallon and one 30,000-gallon capacity), the underground piping and associated valves, propane meters and numerous other miscellaneous tools and equipment required to operate the Propane Enterprise and to transport propane to customers.

### ***Operations***

The District is regularly inspected by the CPUC (California Public Utilities Commission) Safety Unit. Their last inspection was completed on September 11, 2013.

District staff has recently completed an inspection of each propane meter installation and made recommendations on twenty meters that do not have adequate protection. The District will be working with homeowners to improve the protection prior to the 2017-2018 winter.

### ***Capital Improvements***

The District is evaluating bids for an additional 30,000-gallon storage tank, which could be installed next summer. The District is also in the process of changing out 10% of the propane meters (43) in the Valley, and will continue with this annually until completed.

### ***Future Needs***

A project to grade the area around the vaporizers to allow for better snow removal is planned for 2017.

## **SNOW REMOVAL OPERATIONS**

### ***Description***

The District has been performing Snow Removal services for various Homeowner Associations and private homeowners for the past 13 years. During the 2016-2017 winter season, the District removed snow for 22 Homeowner Associations and 63 private homeowners.

After a four-year drought, followed by average snowfall in 2015-2016, the 2016-2017 snow year served as a reminder of what a heavy snow year looks like. Kirkwood received 657 inches of snow and 42 inches of rain. Most of the precipitation, 427 inches of snow and 12 inches of rain, fell in January and February, which featured two rain-on-snow events.

The rain-on-snow events brought many challenges including flooding, clogged shoots, one lane roads and a five-day highway closure. Caltrans, the Resort and the District all were stretched to the limit, as many of you who had to drive in these conditions can attest. Thank you to all of our customers for working with the District during these events and for all of your comments, both positive and negative.

### ***Operations***

During snow events, the District will typically commence services when 3-4 inches of snow accumulates, with the day crew starting at 4:00 AM and working an 8-hour to 12-hour shift depending on staffing and snowfall. During a major snow event, the District will operate a night shift to ensure it keeps up with the demand. The District also spreads traction sand to icy roadways when needed.

A new snow removal request tool is available on-line for customers who have signed up at [www.kmpud.com](http://www.kmpud.com). The tool allows customers to input their arrival/departure times so that snow removal staff can adjust routes if needed and prioritize requested driveways if possible. The system will send automatic notification to customers when the request is complete.

### ***Capital Improvements***

District staff has installed GPS devices on all Snow Removal Equipment. These devices are tied into a software package that can identify:

- Where each piece of equipment is in one-minute intervals, with all turns recorded.
- Areas that have been plowed, and length of time to plow each area.

The data collected will be used to make sure we are optimizing our resources to help keep costs down and to fairly allocate costs across customers.

The District also had major improvements made to the 950 Loader prior to the 2016-17 winter including new tires, chains and engine service.

### ***Future Needs***

New Trackless machines are budgeted every two years starting in 2018 as our existing fleet continues to age. Other planned improvements include an additional 950 Loader and a small snowcat.

## **SOLID WASTE OPERATIONS**

### ***Description***

The District provides a central, well maintained Solid Waste Transfer Facility for the collection of solid waste, recyclables and hot ash, located adjacent to the Wastewater Treatment Plant at 40 Loop Road. Additionally, the District manages collection facility dumpsters at a variety of locations in Kirkwood's commercial zone. The ski resort manages its own solid waste collection service via South Tahoe Refuse.

### ***Operations***

District staff inspect and maintain all collection facilities daily and coordinate weekly off-site hauling operations with ACES Waste Services (ACES). District staff also conduct routine maintenance and repair of all District collection dumpsters. The District takes an aggressive approach to solid waste management by ensuring that only full dumpsters are emptied, and that the dumpsters are protected from bears and other wildlife by locking them and providing wildlife clips for customers. During snow season, District staff ensures customer access to dumpsters by removing snow from in front of and on top of their access lids.

### ***Capital Improvements***

There were no capital improvements to Solid Waste Operations during FYE 2016-2017.

### ***No Service Interruptions Due to Frequent Road Closures***

Despite all of the severe snowstorms during the winter season of 2016-2017, that caused multiple road closures, there were no interruptions in solid waste services to District customers. This was due in large part to cooperative efforts between District staff and ACES Waste Services, which included hand-transfer of the waste stream between facilities, flexible hauling schedules and the willingness, upon District request, to utilize alternate routes that added 3 to 5 hours to the hauling route.

### ***Future Needs***

Solid waste demand is currently being met by the District but it is anticipated that at build-out, more dumpsters and collection facilities will be required. District staff is currently researching this issue and potential sites for development. The District will also need to promote the collection of recyclable material to meet new California laws by 2020.

## **KIRKWOOD VOLUNTEER FIRE DEPARTMENT**

### ***Description***

Since 1972, the Kirkwood Volunteer Fire Department (KVFD) has provided life safety services to the Kirkwood community and its visitors, responding to medical calls, structural and wildland fires, search and rescue, hazardous materials spills and vehicle accidents in Kirkwood, as well as covering an area east to Carson Pass and west to Tragedy Springs Road along SR 88. The KVFD also works in partnership with the Eldorado National Forest, Alpine and Amador Counties, and many other agencies to promote fuels reduction and fire safety efforts.

The KVFD is a 501(c)3 nonprofit public benefit corporation and hosts or sponsors several community fundraising events during the year. The three major annual fundraisers to benefit

the fire department are the Kirkwood Summer Festival, the Labor Day 5K/10K/Kid's Fun Run and the "Thin Air" Chili Cook Off. The Kirkwood Summer Festival, held over the fourth of July weekend, is the Fire Department's signature event that draws homeowners and visitors alike to enjoy an afternoon of wine and beer tasting, fine food, live music, and a very popular and successful silent auction organized by community members. The 2017 Summer Festival raised almost \$33,000 which has been allocated to purchase new self-contained breathing apparatus (SCBA) equipment for the volunteer firefighters, and to hire a seasonal firefighter during the busy winter months. KVFD also supports and receives a donation from Alpine County's annual Tour of the California Alps/Death Ride. New this year, the KVFD will host the 'Thin Air' Chili Cook Off, which will be another opportunity for the fire department to raise additional funds.

### ***Operations***

The Fire Department's volunteers report to the General Manager with an established command structure. The KVFD Chief and Captains train and direct volunteer members in all fire department and Emergency Medical Service (EMS) activities. During this report period, there were eight active volunteer firefighters, with various firefighting and EMS skills who responded to calls.

The Fire Department's existing apparatus consists of two Type 1 pumpers, (E-93 and E-193) both capable of delivering 1,250 gallons per minute of water. E-93 is the front-line apparatus and is now 11 years old and remains in very good condition. The E-193 is the reserve apparatus and is now 31 years old and still in good condition. The KVFD also has several other utility type vehicles that it shares with other District departments daily.

The District also administers a free roadside chipping program, from June through October, through the Defensible Space Chipping Program. To participate, stack cut brush and limbs up to 5 inches in diameter within 5 feet of the road edge, with cut ends facing toward the road, no higher than 4 feet. District staff monitors roadways and completes chipping as needed.

### ***Capital Improvements***

The 2017-2022 Capital Plan calls for the replacement of radios in 2017 and minor hose replacements and additional radios during the 2019-2022 period.

### ***Future Needs/Fire Service Master Plan***

The Fire Service Master Plan that was created in 1997 is currently being updated and will be used as the foundation for determining future operations, staffing, equipment and funding needs of the KVFD. The Plan is anticipated to be complete and available for public comment in December 2017.

For Winter 2017/18 the Board approved hiring a seasonal part-time firefighter to help support KVFD during peak call volume periods – Fridays, Saturdays, Sundays and Holidays.

### ***Funding***

The District has begun updating the 1997 Fire Service Master Plan, with the long-term goal for this project to provide a stable, long term source of funding to meet the additional needs of the Fire Department through build-out, as determined in the revised Fire Service Master Plan. Funding options to be addressed in this Preliminary Funding Research Report may include a local sales tax, excise tax, or a Mello Roos service fee.

The District is formulating a proposal to Alpine County to station a sheriff in Kirkwood, ideally a safety officer who could also respond to fire calls for the winter season, with Vail Resorts and the Kirkwood Resort Development agreeing to provide housing and office space respectively.

### **OTHER SERVICES PROVIDED BY THE DISTRICT**

In addition to supplying Water, Wastewater, Electric, Propane, Snow Removal, Solid Waste, and Fire Protection services, the District provides four other lesser known services:

#### ***Mosquito Abatement***

In cooperation with the California Department of Public Health's Vector Control Division, the District is authorized to apply an ecologically sensitive larvicide during the relatively short period between spring and early summer before standing water in Kirkwood evaporates.

#### ***Cable Television Administration***

In accordance with the Digital Infrastructure and Video Competition Act of 2007 (DIVCA), the District is authorized to collect a state franchise fee from Volcano Vision in the amount of 5% of its gross revenues that are derived from the operation and exercise of its franchise within the District's service area. These funds are used to support the Public Television Station, Channel 19. The District is also tasked to monitor the reception quality and customer service support provided by Volcano Vision.

#### ***Parks and Recreation Services***

A small portion of property tax receipts are allocated to maintain the playground, picnic tables and barbeque as a community service.

#### ***Employee Housing***

The District provides an 8-unit building with 12 bedrooms known as Lava Rock Lodge to house employees critical to the 24/7 operations of the District.

More information on any of these services can be found at the District's website, [www.kmpud.com](http://www.kmpud.com).

## **STAFFING**

### ***Current Levels***

The District has 19 full time staff members, and up to six seasonal employees depending on snowfall/business levels. The District is proud of its employee retention, and promotes a wellness initiative, ergonomics and other incentives and programs to help maintain a healthy working environment. You can read about our staff at [www.kmpud.com/about/staff/](http://www.kmpud.com/about/staff/).

### ***Training***

In FY 2017, all fulltime employees participated in effective communication, defensive driving, fall protection, ergonomics, and cyber security awareness training. The Operations staff had additional training on snow removal hazards/safety and precautions for equipment. The Electrical Staff had additional training from Exponential Engineering on electrical distribution and transmission safety training. The Office Staff had additional training on billing using PCS software. All employees are encouraged to seek out training opportunities that will benefit both the District and promote personal growth.

### ***Succession Planning and Manager Training***

The General Manager will be ending his contract with the District in September 2017. The District has been proactive by providing training sessions for its eight managers to help with this transition. Each manager attended training on the essentials skills for effective management, drug and alcohol reasonable suspicion and sexual harassment preventions for supervisors.

### ***Fiscal Year 2016-2017***

Fiscal Year 2016/2017 was an exciting year for training. The District had two employees complete their certification training which they had been working towards for over a year. Edward Benson became a Certified Line Worker and Kimberly Norton became a Certified RUS Accountant.

The Waste Water Treatment plant was well represented by Shawn Trevett, who passed his Grade 1 Water Treatment test. Brandi and Ed Benson attended Utility Fault Location training in Alabama and Kimberly Norton enrolled in AWCA/JPIA Human Resource Certification program and has completed 9 of the 19 classes required.

### ***Fiscal Year 2016-2017***

Keeping the momentum going, training has been scheduled through MHN with Sandra Branton, to occur in the early part of Fiscal Year 2017-2018. Sandra will provide training in July 2017 for all employees on managing stress, coping with the stress of change and will provide training for managers only on managing challenging workplace behaviors.

We also currently have the following employees preparing for tests:

Derek Dornbrook – Grade II Wastewater Collection Systems Operator Certification

Steve Neff – Line Work Certification

Kimberly Norton – HR Certification

Joe Pellerin – Grade 1 Wastewater

Spencer Patterson – Operation of Wastewater Treatment Plants Volume 1

## **STANDING COMMITTEES**

### **Finance Committee**

Chair – Standish O’Grady

Members – Eric Richert, Mark Duvall, Jack Longinotti, Allan Sapp, Nancy Trevett

#### **Current Agenda Topics:**

- District’s Financials
- Cushion of Credit
- Audit
- Rate Adjustments
- Snow Removal Equipment
- CalPERS Side Fund Liability Payment
- Electric Hedge
- Base Rates for Destroyed Houses

### **Operations Committee**

Chair – Peter Dornbrook

Members – Geoff Smith, Howard Hoffman, Greg McManus, Caroline Scott

#### **Current Agenda Topics:**

- Snow Removal GPS Tracking
- Purchase of Loader for Snow Removal Department
- Hazardous Trees Close to District Infrastructure
- Caltrans Hwy 88 Ice Box Conditions
- Out Valley Telecommunications Line
- USFS Prescribed Burns
- Federal Disaster Assistance
- Wastewater Collection System, Inflow and Infiltration Issue and Absorption Beds
- Kirkwood Summer Festival & Chili Cook Off

### **Planning Committee**

Chair – Eric Richert

Members – Geoff Smith, Judy Flinn, Doug Pierini, Cheryl Stern, Nate Whaley

#### **Current Agenda Topics:**

- Electric Vehicle Charging in Kirkwood
- 10-Year Specific Plan Review
- School Site Parking Lot Plan
- In Valley Sherriff Deputy
- Fire Department Master Plan
- Snow Storage
- Hwy 88 Ice Box

### **Personnel Committee**

Chair – Bob Epstein

Member – Standish O’Grady

#### **Current Agenda Topics:**

- Wellness Program
- Current Staffing Levels
- CalPERS Health Options
- Staff Training and Certifications
- KVFDD Workers Compensation Insurance Provider

### **IT (Information Technology) Committee**

Chair – Bob Epstein

Members – Standish O’Grady, Steve King (Wired Solutions), Bruce Lawler

#### **Current Agenda Topics:**

- Membership
- Field Property Data
- ACWA/JPIA Cyber Liability Coverage
- Snow Removal GPS Tracking
- Disaster Recovery Plan/ Emergency SOP
- SCADA
- Network communications between District facilities

### **ADDITIONAL RESOURCES:**

For more information about the Kirkwood Meadows Public Utility District, please refer to the following resources:

#### **Audited Financials FY 2015-2016:**

<https://www.kmpud.com/wp-content/uploads/2013/04/Kirkwood-Meadows-PUD-2016-Audit.pdf>

#### **5-Year Budget:**

<https://www.kmpud.com/wp-content/uploads/2018-2022-Final-Budget.pdf>

#### **Board and Committee Meeting Schedule:**

<https://www.kmpud.com/community/calendar-of-events/>

#### **Consumer Confidence Report**

<https://www.kmpud.com/departments/water-and-waste-water/consumer-confidence-report/>

**On-line Signup for Utility Use Information:** <https://www.kmpud.com/register/>