KINNELOA IRRIGATION DISTRICT
SPECIAL DISTRICT • PUBLIC WATER AGENCY
1999 KINCLAIR DRIVE, PASADENA, CALIFORNIA 91107-1017

NOTICE OF PUBLIC HEARING

To Consider Proposed Water Rate Increases

3 p.m. Tuesday, November 19, 2024
Kinneloa Irrigation District
1999 Kinclair Drive, Pasadena, CA 91107

The complete Water Rate Study report is available on the District website at www.kidwater.info

October 1, 2024

PUBLIC HEARING NOTICE
REGARDING PROPOSED WATER RATE INCREASES FOR 2025-2029

Pursuant to the requirements set forth in Article 13D of the California Constitution, we are notifying you that the Kinneloa Irrigation District's Board of Directors will consider establishing water rates for years 2025-2029, as described below, at a public hearing to be held at 3:00 p.m. on Tuesday, November 19, 2024. Information for participating in the meeting will be available by calling the office prior to the meeting and also on the District's website at https://www.kinneloairrigationdistrict.info/board-meetings.

These rates will be applicable for water supplied to all parcels within the District's boundaries. The Board will consider oral and written comments from the public at this meeting prior to adopting any change in the District's rates. You may submit a written protest to the proposed rates at the address set forth above either prior to or at the public hearing. The Board of Directors has the authority to adjust the proposed water rate changes in response to oral testimony and written materials submitted for consideration, provided any adjustments cannot increase rates beyond those proposed in this Notice. If adopted, proposed water rate adjustments would become effective on January 1, 2025, with annual rate adjustments each January 1 through 2029.

Water sales revenue is the primary source of income to the District and this revenue is needed to provide funding for system improvements, preventative maintenance projects, and general operating costs. Regular rate studies are critical to the healthy operation of the District and are ideally conducted every 3-5 years. Utility systems must keep up with rising costs and be able to implement critical capital projects that are mandated or necessary for the health and safety of our customers. Performed regularly, water rate studies provide transparency into what the District can expect in the years ahead and ensure we have the financial resources to meet our budget, maintain our infrastructure, address existing and new state and federal regulations, and implement our Capital Improvement Plan (CIP). At its Regular Meeting of September 24, 2024, the Kinneloa Irrigation District Board of Directors adopted a new Water System Evaluation and Capital Improvement Plan. The Executive Summary of that Plan is included in this notice, the full document is available for viewing at the Districts website.

Why Are Water Rate Increases Needed?

Water services are funded exclusively by the rates customers pay. While the District is dedicated to keeping water rates low by maintaining lean staffing and using reserves, when necessary, costs continue to rise. Similar to higher costs for most consumer goods, the District is impacted by rising costs to produce and store water, and for energy, fuel, equipment, parts, and labor. Per state law, revenues generated from rate increases must only be used to fund the actual costs to operate and maintain the water system including infrastructure projects and the cost of debt to finance capital improvement projects.

With no connection available to receive purchased imported water, the District relies exclusively on its well and tunnel production system. The District's water system is aging and needs upgrades and replacements to ensure reliable water service. Therefore, the District is proposing to invest more than $11.5 million, over the next 10 years, in significant capital improvement projects (CIP), including water main replacements to meet fire flow requirements ($5.5m), pump station rehabilitation ($1.5m) and resiliency measures to maintain system functionality in the case of earthquakes and other disasters ($600k).

With assistance from an independent consultant, a rate study was performed this summer to assess the District's revenue needs. A copy of its Executive Summary is included in this notice, the full document is available for viewing at the District's website or in the District's office. The proposed rates are determined based on the projected revenue needed to fund:

- Operations and Maintenance, such as producing water, labor, supplies, and equipment
- Substantial Capital Needs, such as large projects to repair/replace pipes, wells, pumping plants, and reservoirs.
- Debt Service to repay loans
- Reserves to meet minimum debt requirements and fund emergency or unplanned expenses.

Proposed Rate Recommendations

There are two components that make up the bill received every month

1. Daily Service Charge: Covers a portion of fixed costs that are not affected by water use, such as infrastructure, rehabilitation, system maintenance, and administration.
2. Water Usage Charge: Also known as commodity or volumetric rates based on how much water is consumed. The usage rate is the price per unit of water. A unit of water is 748 gallons, or one hundred cubic feet (CCF).

The updated Cost of Service analysis and the District's total revenue needs per year result in the proposed water rate adjustments shown in the following tables. Customer rates and charges will differ depending on the meter size, and water use. All customers pay a daily service charge and a usage charge. The rates were developed to adhere to state law and to be fair to all customers.

Table 1: Proposed Daily Service Charge Schedule by Meter Size

Line	Meter Size	As of 1/1/24	Effective 1/1/25	Effective 1/1/26	Effective 1/1/27	Effective 1/1/28	Effective 1/1/29
1	3/4 inch	$2.48	$2.68	$3.19	$3.48	$3.80	$4.15
2	1 inch	$2.48	$2.68	$3.19	$3.48	$3.80	$4.15
3	1.5 inch	$2.48	$5.04	$6.00	$6.54	$7.13	$7.78
4	2 inch	$2.48	$7.87	$9.37	$10.22	$11.14	$12.15

Table 2: Proposed Water Usage Charge per CCF

Line	Usage Charge ($/ccf)	As of 1/1/24	Effective 1/1/25	Effective 1/1/26	Effective 1/1/27	Effective 1/1/28	Effective 1/1/29
1	All customers	$6.20	$6.90	$8.22	$8.96	$9.77	$10.65

How Do I Protest the Proposed Rate Increases?

You have the right to protest the proposed water rate adjustments. The protest must be in writing, and it must be submitted by either the property owner or a current ratepaying tenant. It must include the KID property service address and/or the assessor's parcel number, the eligible individual's name (property owner or tenant), a statement to the effect of "I protest the proposed water rates," and an original signature.

Written protests **may only be delivered** to one of the District courtesy mailboxes **or submitted by mail** to Board Secretary, Kinneloa Irrigation District, 1999 Kinclair Drive, Pasadena, CA 91107, **or in person** at the District's office at 1999 Kinclair Drive, Pasadena, CA 91107, or during the Public Hearing at 3 p.m. on Tuesday, November 19, 2024. **All protests must be received by the District Board of Directors before the conclusion of the Public Hearing**. The Board will not accept or consider any protest received after the conclusion of the Public Hearing.

Only one written protest per affected property will be counted. Telephone, e-mail, and fax protests will not be accepted. At the Public Hearing at 3 p.m. on Tuesday, November 19, 2024, the Board of Directors will accept and consider all written protests and hear all oral comments on the proposed water rate changes. Oral comments will not be counted as protests unless accompanied by a written protest as outlined in this Notice.

At the conclusion of the Public Hearing, the Board of Directors will consider adopting the proposed changes as follows:

(1) If fewer than a majority of property owners or ratepayers file a protest, the Board of Directors will consider adjusting water rates as proposed.
(2) If a majority of affected property owners or ratepayers protest the proposed water rate adjustments before the conclusion of the Public Hearing, the District is prohibited by law from changing its water rates at this time.

Notice is further given that, should the District determine to adopt the rates for the Fees set forth herein, there is a 120-day statute of limitations to challenge the fees, which shall commence from the date the resolution adopting the fees is adopted, as further described in Government Code section 53759.

If adopted, the proposed water rates will take effect beginning January 1, 2025. The reasons for the rate adjustments, the basis upon which they were calculated, and the amount of the proposed water rates are described in more detail in the Water Rate Study Report, which is posted on the District's website and available at the District's main office, 1999 Kinclair Drive, Pasadena, CA 91107 between 8:00 a.m. and 5:00 p.m., Monday through Thursday. District staff can assist in answering questions about water rates, the rate study, or your bill.

Your billing and usage history are available online by registering your account at the District's website at https://www.kinneloairrigationdistrict.info or by phone upon request. The size of your water meter is noted on your monthly water bill, you may also call to confirm your meter size. The effect of this proposed rate increase on your monthly water bill can be offset by continuing your conservation efforts, by converting your outdoor irrigation and landscaping to California-friendly plants and by applying at https://www.socalwatersmart.com for rebates on appliances, weather-based irrigation controllers and other water saving devices.

Your Board of Directors, who are also customers of the District, is committed to keeping your water rates as low as possible and still provide a safe and reliable water supply and a superior emergency response capability. This increase is consistent with those goals.

Sincerely,

Kinneloa Irrigation District Board of Directors

Kinneloa Irrigation District • 1999 Kinclair Drive, Pasadena, California 91107-1017
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1. EXECUTIVE SUMMARY

1.1 SYSTEM OVERVIEW

The Kinneloa Irrigation District (District) provides water service to 590 metered customer connections, almost all of which are residential customers. The District was formed in October 1953 by Resolution of the Los Angeles County Board of Supervisors and is governed by a five-member Board of Directors elected by the public.

The water system, which is owned and operated by the District, consists of two groundwater wells, over 90,000 feet of transmission and distribution pipelines, five booster pump stations, and ten water storage reservoirs with a total capacity of approximately four million gallons.

The District's primary water supply source is groundwater pumped from the Raymond Basin aquifer, from which the District has an adjudicated pumping allowance of 516 acre-feet (AF). The District also operates five water tunnels producing groundwater from the mountainous formations that surround the District. In addition, the District also maintains six emergency interconnections with the City of Pasadena to supply water to its reservoirs during an emergency.

1.2 RATE STUDY OVERVIEW

Public retail water agencies in California typically conduct a cost-of-service study every five years to ensure that customers are appropriately charged for water service and to reestablish the cost-of-service nexus that is required by Proposition 218. The District has engaged Water Resources Economics, LLC (WRE) to conduct a comprehensive water rate study, with the following objectives:

- Develop a five-year water rate schedule for Calendar Year (CY) 2025 through CY 2029
- Conduct a cost-of-service analysis based on the most recent data and customer use characteristics
- Evaluate a five-year financial plan scenario to meet financial targets for CY 2025 to CY 2029

1.3 LEGAL REQUIREMENTS

Legal considerations relating to retail water rates in California focus heavily on Proposition 218, which was enacted in 1996 and is now reflected in Article XIII C and Article XIII D of the California Constitution. Proposition 218 states that "property related fees and charges" (which include retail water rates) may not exceed the proportional cost of providing the service to the customer and may not be used for any purpose other than providing said service. The practical implication is that public retail water agencies in California must demonstrate a sufficient nexus between the costs incurred by the agency to provide water service and the rates charged to customers. The primary means by which retail water agencies address this requirement is by conducting a "cost-of-service analysis."

Proposition 218 also affects the rate adoption process by requiring agencies to hold a public hearing to adopt rates. The agency must mail public hearing notices to all customers no fewer than 45 days prior to the public hearing. The public hearing notices must clearly show all proposed rate changes,

provide information on the public hearing date/time/location, and provide instructions on how customers may protest the proposed rate changes. If a majority of customers submit a protest, the proposed rate changes cannot be adopted.

1.4 RATE-SETTING METHODOLOGY

This study was conducted using industry-standard methodology outlined by the American Water Works Association (AWWA) in its *Manual of Water Supply Practices M1: Principles of Water Rates, Fees and Charges, Seventh Edition* (M1 Manual). The rate study process includes the following steps:

1. **Financial Plan**: Annual revenues and expenses are projected over the rate-setting period to determine the magnitude of rate increases needed to maintain financial sufficiency. Financial policies, such as reserve targets, are also evaluated and updated if necessary.
2. **Cost-of-Service Analysis**: Costs are allocated to customers in proportion to use of and burden on the water system. The overall goal is to establish a robust nexus between the costs incurred by an agency and the rates charged to customers, as required by Proposition 218.
3. **Rate Design**: The existing rate structure is evaluated, and potential changes are identified. A multi-year proposed rate schedule is then calculated directly from the results of the financial plan and cost-of-service analysis.
4. **Rate Study Documentation**: A rate study report is developed to document the proposed rate development process. This provides transparency and enhances compliance with Proposition 218 requirements. This document serves as the report for this rate study.

1.5 ADDITIONAL INFORMATION AND DISCLAIMERS

This report summarizes the data, analyses, processes, and results of the District's water rate study. Some important information to keep in mind when reading the report includes the following:

- All study projections are based on the best available data as of April 2024.
- All table values are rounded to the nearest digit shown unless stated otherwise. However, all calculations are based on precise values. Attempting to manually recreate the calculations described in this report from the values displayed in tables may therefore produce slightly different results.
- All current and proposed rates and charges in this report are shown on a monthly basis.

1.6 CURRENT WATER RATES

The District's current water rate structure includes a fixed daily service charge, which is a readiness to serve charge computed based on the actual number of days between meter readings, and a monthly usage charge per hundred cubic feet (ccf) of water usage. The water rates apply to all customers and meter sizes. **Table 1-1** shows the current water rates that were adopted in the two most recent budgets.

Table 1-1: Current Water Rates

Line		As of 1/1/23	As of 1/1/24
1	Daily Service Charge	$2.48	$2.48
2	Monthly Usage Charge ($/ccf)	$4.98	$6.20

1.7 FINANCIAL PLAN

WRE worked closely with District staff and the District's Board of Directors to determine the financial plan scenario that best suits the District's needs. The results and recommendations of the water rate study are driven by the District's financial performance, input from District staff, and feedback and direction from the Board.

FACTORS AFFECTING FINANCIAL PERFORMANCE

The water system's financial performance is driven by the ability of the current water rates to meet the District's funding needs. To maintain financial sufficiency, water rates must fully fund operations and maintenance (O&M) costs, capital improvement plan (CIP) expenditures, and any relevant financial policies, which typically include target reserve balances and debt coverage.

The key factors affecting financial performance include:

- **Substantial capital investment needs over the next five years:** The cost of planned capital projects over the next five years (CY 2025 through CY 2029) is approximately $8.3 million. Key projects include the Brown-Glen to Villa Knolls/Edgecliff Project, the Villa Mesa/Villa Rica and the Lower Pasadena Glen Road pipeline replacement projects.
- **Water demand fluctuations:** The District currently receives over 75 percent of its revenue from water consumption. A reduction in water usage can result in major revenue shortfall for the District. For example, in CY 2023, water usage was over 30 percent lower than the prior year.
- **Reserve policy targets:** The District's current reserve policy includes targets for operating, emergency, replacement, and capital improvement needs. The reserve policy in place allows the District to maintain cash on hand to meet short-term cash flow requirements, to cover unexpected repairs, and to execute CIP projects. WRE proposes that the District revise its reserve policy to be more in line with its operations and risks.

PROPOSED REVENUE ADJUSTMENTS AND DEBT ISSUANCES

Overall annual increases in water rate revenues resulting from rate increases are referred to as "revenue adjustments." WRE worked with the Board and District staff to determine the most appropriate financial plan scenario, which is shown in **Table 1-2**. The proposed financial plan scenario includes five years of revenue adjustments, which are required to maintain financial sufficiency and resiliency, and one debt issuance in CY 2025 to refund the current debt and fund $4.6 million worth of CIP projects.

Table 1-2: Proposed Financial Plan Scenario

Line	Fiscal Year	Revenue Adjustments	Debt Issuance	Debt Refund	Debt Proceeds for CIP
1	CY 2025	19.0%	$5,699,482	$935,169	$4,564,831
2	CY 2026	19.0%	$0		$0
3	CY 2027	9.0%	$0		$0
4	CY 2028	9.0%	$0		$0
5	CY 2029	9.0%	$0		$0

Under this proposed financial plan, the District will meet its reserve targets by year four of the planning period and meet coverage requirements for all years.

1.8 COST-OF-SERVICE ANALYSIS

A cost-of-service analysis is a technical process used to determine the cost of providing water service to the District's customers based on each customer's use of and burden on the water system. The cost-of-service analysis is the basis of the nexus between the costs incurred by the utility to provide water service and the water rates charged to customers, which is a requirement of Proposition 218.

COST-OF-SERVICE METHODOLOGY

The cost-of-service methodology is based on industry standards set forth by AWWA in its M1 Manual; this rate study utilizes the base-extra capacity method. The overall goal of the cost-of-service analysis is to develop "unit costs," which provide the basis from which proposed rates are directly calculated. Note that although the study period spans three years, the cost-of-service analysis is limited to a single representative year referred to as the "test year." The test year in this study is CY 2024. The key steps in conducting a water cost-of-service analysis are outlined below:

- **Revenue requirement determination**: The total rate revenue requirement for the test year is determined based on the results of the proposed financial plan and divided into primary sub-components (operating, capital, etc.).
- **Cost functionalization**: Operating and capital costs are evaluated and assigned to "functional categories" in the water system (e.g., customer service, water supply, distribution, etc.). This provides a proportional breakdown of system costs by functional category.
- **Revenue requirement allocation to cost causation components**: Functionalized costs are allocated to "cost causation components" (e.g., water supply, base delivery, max day delivery, etc.), which is used to attribute customers' use of the system to the costs incurred by the District.
- **Unit cost development**: The rate revenue requirement allocation for each individual cost causation component is divided by the appropriate units of service to establish unit costs for the test year. Unit costs provide the basis from which proposed rates are calculated.

1.9 PROPOSED WATER RATES

WRE worked closely with the Board and District staff to determine the most appropriate water rate structure that meets the District's needs.

PROPOSED RATE STRUCTURE CHANGES

The main objective was to conduct a comprehensive cost-of-service analysis while maintaining as much of the current water rate structure as possible to minimize customer impacts. The District's current rate structure includes a daily service charge and a uniform water usage charge for all customers.

After examining the existing rate methodology, WRE recommends a change to the daily service charge to be based on meter size to reflect the different capacity of each meter size. This rate structure is also consistent with industry standards and Proposition 218's proportionality requirement. Given the District's water supply and customer profile, WRE recommends the District retains the current uniform monthly water usage charge structure.

PROPOSED FIVE-YEAR WATER RATE SCHEDULE

The proposed five-year water rate schedules in this section are based on the proposed rate structure and methodology changes, the updated cost-of-service analysis, and the proposed revenue adjustments. The rate schedule shows the proposed water rates to be implemented in January 2025 through January 2029. **Table 1-3** and **Table 1-4** show the current and proposed daily service charge and water usage charge, respectively.

Table 1-3: Proposed Daily Service Charge

Line	Meter Size	As of 1/1/24	Effective 1/1/25	Effective 1/1/26	Effective 1/1/27	Effective 1/1/28	Effective 1/1/29
1	3/4 inch	$2.48	$2.68	$3.19	$3.48	$3.80	$4.15
2	1 inch	$2.48	$2.68	$3.19	$3.48	$3.80	$4.15
3	1.5 inch	$2.48	$5.04	$6.00	$6.54	$7.13	$7.78
4	2 inch	$2.48	$7.87	$9.37	$10.22	$11.14	$12.15

Table 1-4: Proposed Water Usage Charge

Line	Usage Charge ($/ccf)	As of 1/1/24	Effective 1/1/25	Effective 1/1/26	Effective 1/1/27	Effective 1/1/28	Effective 1/1/29
1	All customers	$6.20	$6.90	$8.22	$8.96	$9.77	$10.65

SECTION 1: EXECUTIVE SUMMARY

1.1 System Summary

The Kinneloa Irrigation District (KID) is a California Special District organized under Division 11 of the California Water Code. KID owns and operates a water system in the north-central part of Los Angeles County, generally bordered by the City of Pasadena on its west, south and east sides and the Angeles National Forest to the north. Most of the service area is in unincorporated Los Angeles County with a few customers residing within the City of Pasadena boundaries. The present developed service area of the KID covers an area of approximately 460 acres. Additionally, there is approximately 440 acres of undeveloped watershed area within District boundaries north of the present service area.

The KID services a population of approximately 1,950 and there are currently 591 active metered services. The KID is regulated by the State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) as Water System Number CA1910035. KID's water is supplied exclusively through production of local groundwater sources.

The current Kinneloa Irrigation District system includes:

- Two (2) active vertical groundwater wells
- Five (5) active groundwater tunnels
- Six (6) chlorination stations
- Five (5) interconnections with Pasadena Water and Power
- Six (6) Pressure Zones
- Five (5) Booster Pump Stations (11 pumps)
- Ten (10) potable water storage tanks (~4,000,000 gallons)
- Distribution system infrastructure including
    - Distribution Piping (approx. 91,000 lineal feet)
    - Fire Hydrants (114)
    - System Valves (353)
    - Control Valves (31)
    - Blow-Offs (60)
    - Air Release Valves (91)

District records and system maintenance records indicate that much of the distribution system is nearing 75 years old, surpassing the typical service life of these assets. Approximately 25% of the distribution piping is less than 6-inches in diameter, constricting available fire-flow rates. A comprehensive program to replace aging, undersized and deteriorating piping is recommended to improve the condition, capacity, and reliability of the distribution system.

1.2 System History

The Kinneloa Irrigation District was formed and incorporated under the provisions of the Irrigation District Law (Division 11, Water Code) by Resolution of the Los Angeles County Board of Supervisors on October 13, 1953. It is governed by a five member, publicly elected Board of Directors. At time of formation the newly formed KID acquired the Kinneloa Water Company and served the general area of Kinneloa Canyon, Kinneloa Mesa and the Kinneloa Ranch. In 1974 an improvement district was formed with the addition of the Mira Loma, Canyon Mutual and Osborn Water Companies to the Kinneloa Irrigation District. In 1983 new single-family homes were built in the neighborhood known as Hastings Heights which is formally within the boundaries of the City of Pasadena. In 1990 the Dove Creek townhome complex was built at a site at the southeast corner of Altadena and New York Drives.

1.3 Demand Analysis

Water demands were analyzed for the period January 2014 through December 2023. Based on the data analyzed, existing and future minimum month daily demand (MMDD), average daily demand (ADD), maximum daily demand (MDD), and peak hour demand (PHD) were estimated, and summarized in Table 1-1. Average annual water use over this period was 603 Acre-Feet per year (AFY).

Table 1-1. Summary of Existing and Future System Water Use

Criteria	Unit	Existing Demand	Future Demand
MMDD	*GPD*	272,768	361,522
ADD	*GPD*	538,371	627,125
MDD	*GPD*	1,076,743	1,165,497
PHD	*GPH*	112,161	117,969

1.4 Supply Analysis

KID obtains all its water through a combination of producing groundwater according to its rights in the Raymond Basin and by producing groundwater through a series of groundwater tunnels accessing groundwater in the mountainous formations that surround the District.

The Raymond Basin, adjudicated in 1944, *City of Pasadena v City of Alhambra et al*. was the first basin wide adjudication of groundwater rights in California. The Raymond Basin Management Board was appointed Watermaster in 1984. The KID has decreed rights to 516 AFY; however, due to declining levels in the basin in January 2008 a self-imposed pumping reduction of 30% was

implemented resulting in the current annual baseline production right reduced to 361.2 AFY. The KID may supplement its annual production right by conducting spreading operations where parties may receive credit for spreading of canyon surface water diversions into designated spreading grounds. The KID may further supplement its annual production right by leasing rights from another member agency.

Since the 2008 pumping reductions were implemented, groundwater levels in the Raymond Basin have been relatively stable and have risen following the back-to-back wet water years of 2022-2023 and 2023-2024. With average annual demand of 603 AFY, supplementing pumping rights by conducting spreading operations and producing tunnel water directly to the system is critical to maintain future water supply reliability.

1.5 Storage Analysis

The KID has 5 steel water tanks and 5 concrete reservoirs to store potable water for use in the distribution system. The steel water tanks are in good condition, an asset management agreement is in place with a private company that completes all inspections and routine maintenance as required. The concrete reservoirs are in fair to poor condition, the capital improvement plan includes various projects to bring the concrete reservoirs into good condition. Table 1-3 indicates existing volume and desired volume of each reservoir based on demands for the pressure zone it serves as well as the current condition of the facility. Wilcox Reservoir does not directly serve any pressure zone and acts as a forebay to the distribution system.

Although desired volume is less than the existing volume in some instances, the ability to enlarge existing, or construct new reservoirs, is neither economically nor practically feasible and therefore is not contemplated in this plan. To meet the demands of each pressure zone, pipeline and control valve projects are included in the capital improvement plan.

Table 1-3. Summary of Reservoir Sizing and Condition

Facility	Existing Volume (MG)	Desired Volume (MG)	Condition
West Tank	0.500	0.330	Good
East Tank	0.150	0.330	Good
Sage Tank	0.225	0.268	Good
Holly Tank East	0.150	0.268	Good
Holly Tank West	0.150	0.268	Good
Eucalypus Reservoir	0.185	0.290	Fair
Brown Reservoir	0.125	0.211	Poor
Glen Reservoir	0.125	0.211	Poor
Vosburg Reservoir	1.250	0.718	Fair
SUBTOTAL	2.860	2.894	
Wilcox Reservoir	1.125	0.000	Fair
TOTAL	3.985	2.894	

1.6 Condition Assessment

Field inspections of existing water infrastructure were completed by KID General Manager Tom Majich and Facilities Supervisor Chris Burt. The following specialty consultants were engaged for detailed condition assessments where required:

Pump Station Electrical Systems: Building Solutions Group – Jose Cortes, PE
Automatic Transfer Switches: ASCO Power Technologies
Diesel Backup Generators: Generator Services Co., Inc.
Booster and Well Pumps: General Pump Company, Inc.
Steel Potable Water Storage Tanks: USG Water Solutions
Concrete Potable Water Storage Tanks: Municipal Diving Services, Inc.
SCADA System: Cricket Consulting

Identified condition deficiencies are documented in Section 7.

1.7 Capital Improvement Projects

Capital improvement projects were developed based on the results of the condition assessment and other evaluations performed in preparation of this plan. A preliminary estimate of project costs for each of the identified capital projects was developed. As a basis for developing an implementation plan, the recommended projects were assigned a priority number between One (1) and Five (5) based on project necessity; with a priority number of 1 being the highest priority. Assigned priorities and budgetary project costs are summarized in Table 1-4. Detailed project descriptions are included in Section 8.

Table 1-4. Capital Project List and Priority

CAPITAL PROJECT DESCRIPTION		PROJECT PRIORITY	BUDGETARY COST ESTIMATE
G-1	Headquarters: New Roof, Solar/Battery Storage, interior refresh	2	$ 185,323
G-2	Physical Site Security Improvements	1	$ 95,450
G-3	Fire and Water Wise Landscape Improvements	5	$ 75,000
G-4	Roofing on Booster Stations and CL2 Rooms	3	$ 60,000
G-5	SCADA Obsolete RTU Upgrades	3	$ 100,000
G-6	Solar Panels/Batteries for Comms at all Generator Powered Sites	3	$ 125,000
G-7	SCADA Radio/Antenna Upgrades	5	$ 110,000
G-8	District Storage Facilities	3	$ 45,000
G-9	Driveway Paving/Improvements at Various Sites	3	$ 60,000
ST-1	Vosburg Reservoir - Exterior Rehab	3	$ 100,000
ST-2	Glen Reservoir - Full Rehab of Reservoir and Site	1	$ 305,285
ST-3	Brown Reservoir -Roof and Interior Rehab	5	$ 150,000
ST-4	Eucalyptus Reservoir - General Exterior Refurbishment	3	$ 25,000
ST-5	Wilcox Reservoir -General Exterior Refurbishment	3	$ 50,000
ST-6	East Tank - Erosion Control	1	$ 6,000
P-1	K3 Well Pump Rehab/Upgrade	1	$ 250,000
P-2	Wilcox Well - New Pump/Motor/Electrical	3	$ 437,500
P-3	Eucalyptus Booster 1 Pump and Motor R&R	1	$ 75,000
P-4	Wilcox Booster: Booster Station Upgrade	2	$ 700,000
P-5	Glen Reservoir Booster Pump/Motor R&R	2	$ 121,000
P-6	Booster Station Power Backup Generators	4	$ 250,000
T-1	Fluoride Blending Treatment for Delores and Far Mesa Tunnels	1	$ 132,250
T-2	Fluoride Blending Treatment for Hi-Low Tunnel to West Tank	1	$ 85,000
T-3	K3 Chlorination System and Controls Upgrade	1	$ 75,000
SP-1	Delores Tunnel - Pipeline Repair and Protection	1	$ 25,000
SP-2	Far Mesa Tunnel: Source Security and Projection	3	$ 50,000
SP-3	Hi-Lo Tunnel - Pipeline Resilience Project	3	$ 25,000
D-1	Control Valve Retrofit at Sage, Eucalyptus and Holly	2	$ 65,000
D-2	Earthquake Valve Actuators at Storage Tanks	3	$ 340,000
D-3	Upgrade Wharf Hydrant Heads	5	$ 225,000
D-4	Gate Valve Replacement Program	4	$ 150,000
D-5	Brown-Glen to Villa Knolls/Edgecliff Pipeline Project	1	$ 2,070,000
D-6	Villa Mesa/Villa Rica Pipeline Project	2	$ 554,063
D-7	Lower Pasadena Glen Road Pipeline Project	2	$ 588,750
D-8	East Mesaloa/Meyerloa/Clarmeya Pipeline Project	3	$ 805,000
D-9	Eucalyptus-Holly Loop Pipeline Project Phase I and II	3	$ 826,250
D-10	Eucalyptus-Holly Loop Pipeline Project Phase III	5	$ 500,000
D-11	Glen Pumping/Drain Line Project	4	$ 426,250
D-12	Brown Pumping Line Replacement	4	$ 675,000
D-13	East Fairpoint Street Pipeline Project	4	$ 80,000
D-14	West Windover Pipeline Project	4	$ 142,500
D-15	Western Vosburg Street Pipeline Project	5	$ 250,000
D-16	North Villa Heights Road Pipeline Project	5	$ 56,250
D-17	1770-1790 Sierra Madre Villa Pipeline Project	5	$ 106,250
		TOTAL	$ 11,578,120