



Upper San Gabriel Valley Municipal Water District

2020/2021
ENGINEER'S ANNUAL LEVY REPORT
FOR THE RENEWAL OF STANDBY CHARGE

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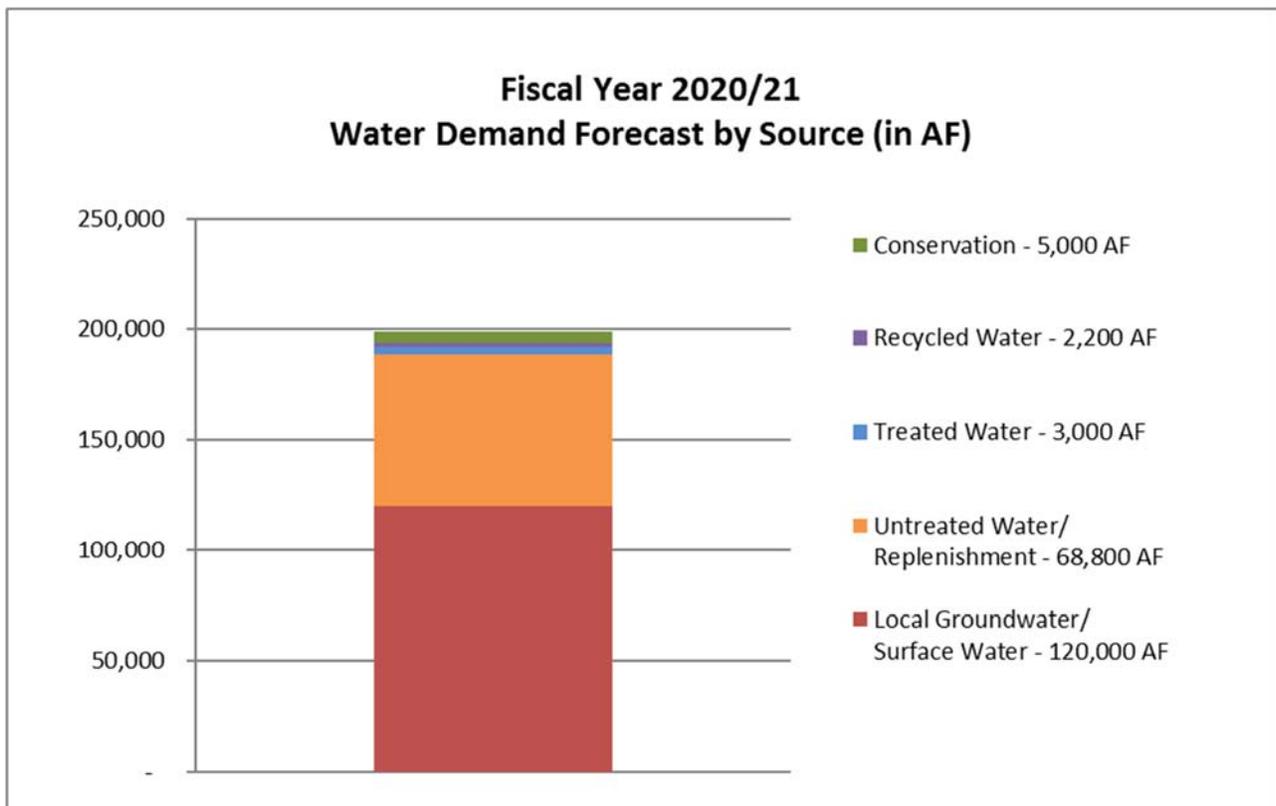
I. REPORT PURPOSE

This report describes the expected benefits and related costs from the Upper San Gabriel Valley Municipal Water District’s (“Upper District”) comprehensive water recycling program and water conservation program as well as the proposed method and basis for the continuation of the previously adopted (prior to the passage of Proposition 218) standby charge program.

II. WATER SUPPLY

For FY 2020/2021, Upper District expects to deliver 3,000 acre feet (AF) of treated water. The Upper District also expects to supply approximately 2,200 AF of recycled water for large area landscape and turf irrigation. A moderate increase in Upper District’s conservation efforts could supply an additional 5,000 AF. To meet forecasted demand for FY 2020/2021, Upper District will have to supply approximately 68,600 AF, either from existing or alternative sources, for groundwater replenishment operations.

Figure 1



III. RECYCLED WATER PROGRAM

While some years have produced above-average rainfall in California, consecutive dry years are very common. Drought is an ever-present challenge. Southern California is subject to an increasing shortage of dependable water supplies for its growing population. On average, approximately fifty percent of the region's water supplies are imported from Northern California and the Colorado River. Both of these sources have become less dependable. In recent years, Metropolitan's dependable, imported supply from the Colorado River and Northern California has also been facing increasing demands and restrictions. This places even greater importance on the development of new local water supplies in Southern California.

There is little dispute that seasonal and cyclic droughts will re-occur in Southern California. The key to drought management is planning and preparation prior to those years when Southern California experiences drought and/or reduced regional water supplies. Advanced planning and preparation is especially important since California's population continues to grow (projected at 15.4 million between FY 2010 and 2060 ⁽¹⁾) and to place increased demand on the limited available potable water resources of the State.

Additionally, endangered species issues prompted a reduction in imported water supplies. The State Water Project is the primary source of imported water supplies to Southern California and the Upper District.

Water reclamation and recycling is one alternative source of water that offers the San Gabriel Valley a very cost effective solution for improving water supply reliability and addressing cyclical drought conditions. Water recycling uses existing, proven technologies to treat wastewater to local, state and federal quality levels and is safe for many non-potable applications. Although substantial volumes of wastewater are still being discharged into the ocean in portions of Los Angeles County, water recycling provides an alternative to disposal and an excellent opportunity to conserve and reuse this scarce natural resource in Southern California. By shifting non-potable demands to recycled water, more drinking water is made available to meet the potable demands of our communities. Water recycling has proven to be not only acceptable to the general public, but is also mandated by the State of California and most municipalities in Southern California.

⁽¹⁾ California Department of Finance – January 2013 Press Release

IV. PROJECT DESCRIPTION

Since 2006, the Upper District has pursued a Water Recycling Program to reduce the San Gabriel Valley's dependence on expensive and increasingly scarce imported water supplies and lessen the overproduction of the groundwater basin. From the very beginning, the Upper District recognized the value of "a partnership approach" to its Water Recycling Program. The Upper District's partners include many of its customer agencies, cities and private water purveyors. Other partners include the Los Angeles County Sanitation Districts (LACSD), the Metropolitan Water District of Southern California, the U.S. Bureau of Reclamation, State Water Resources Control Board and the California Department of Natural Resources.

The first projects to begin delivering recycled water for irrigation purposes, were the Rose Hills Memorial Park Water Recycling Project and the Whittier Narrows Water Recycling Project. Prior to using recycled water, Rose Hills used approximately 293 million gallons per year or 803,000 gallons per day of drinking water for irrigation purposes. In the fall of 2006, the Whittier Narrows Water Recycling Project began supplying the 2,500 acre Whittier Narrows Recreation Area with over 2 billion gallons of recycled water since inception.

Additional projects completed include the South El Monte High School (2007) and Rosemead Extension (2010) Water Recycling Projects. Together these two projects save 250 million gallons of drinking water per year. The South El Monte project provides recycled water to the school's athletic fields and green areas while the Rosemead Extension serves 14 commercial and public sector customers including the Whittier Narrows Golf Course, Edison headquarters campus, Walmart, University of the West, various schools, parks, and nurseries, and the Panda Express corporate offices.

In 2015, the Upper District finalized recycled water expansion into the City of West Covina, with the conversion of irrigation customers from potable to recycled water as part of the Phase IIB Recycled Water Project. The Phase IIB System added about 14 miles of "purple pipe" and a 2 million gallon reservoir to deliver an additional 290 million gallons per year to 25 more customers including the BKK Landfill (2012), South Hills Country Club (2012), Big League Dreams Sports Complex (2012), Shadow Oak Park (2014), West Covina High School (2014), 5 additional West Covina Schools (2014-15), Rimgrove Park (2014), Woodgrove Park, Cortez Park (2014), and several City of West Covina street medians and landscaped walking paths (2012 – 2014).

The Upper District is working with local water purveyors and property owners to increase the use of recycled water in the region. The three proposed recycled water projects currently under design and construction include: Rose Hills Memorial Park, South El Monte Recycled Water System, and La Puente Valley County Water Districts Recycled Water System. The largest recycled water demand for these projects is Rose Hills Memorial Park. Rose Hills already uses recycled water for irrigation on part of their site. In order to fully convert their irrigation system to use recycled water, the project will modify the infrastructure to meet state health code requirements for the safe use of recycled water. The Rose Hills Project expanded the use of recycled water at the cemetery, saving

an additional 200 million gallons of water per year or roughly 550,000 gallons per day. Altogether, the three recycled water expansion projects are expected to increase the use of recycled water by an estimated 246 million gallons per year or about 674,000 gallons per day.

V. PROJECT BENEFITS

The purpose of the project is to augment local water supply and reduce the need for less reliable and costlier imported water. Thus all retail water purveyors and the public they serve in the Upper District's service area that utilize groundwater and/or utilize treated imported supplies receive benefits from the project's supplemental capacity. All water supplied from the LACSD plants will comply with the strictest requirements of Title 22 of the California Code of Regulations. The quality of the water will be suitable for all categories of recycled water use that are planned in the current and future programs. Over the long-term, the project will improve the water supply reliability of the San Gabriel Valley by increasing the quantity of local supplies, reduce the area's dependence on imported water, and help protect the region from future drought impacts. Recycled water produced by this program will be distributed locally for a wide range of beneficial uses. As the Upper District continues to expand its distribution system and pipeline infrastructure, recycled water will benefit many throughout the San Gabriel Valley.

As the Upper District implements projects such as its water recycling program, the reliability of the San Gabriel Valley's water supply is dramatically improved. Improving the reliability of local water resources helps mitigate water shortages even during extended periods of drought and allows the Upper District to keep future water rate increases to a minimum.

VI. CAPITAL PROGRAM FINANCE

The Upper District serves as the lead agency in the water recycling program and will be responsible for obtaining funds, construction of facilities, and providing for the operation and maintenance of the system (except for the proposed Rose Hills, South El Monte, and La Puente Recycled Water Projects, that will be constructed and maintained by the local water purveyor and/or owner, for which Upper District will only serve as the lead agency for obtaining funds). The Upper District is aggressively pursuing several sources of project funding to expand its recycled water program as rapidly as practical.

The Upper District has secured grant funding from the Bureau of Reclamation in the amount of 25% of the construction cost of recycled water projects. The Upper District has also secured project construction funding through the State of California State Revolving Fund (SRF) and the Metropolitan Water District. The standby charge revenues pay the interest and principal payments on the loans from the SRF and provide a limited source of cash financing for the program. It is also expected that additional federal, state, and regional grant money will be utilized to fund a portion of the cost for future project phases.

VII. WATER USE EFFICIENCY PROGRAM

Due to several years of increasingly severe drought conditions, Governor Brown signed Executive Order B-29-15 directing the State Water Board to impose restrictions to achieve a statewide 25% reduction in potable urban water usage through February 2016, as compared to the amount used in 2013. The Governor instructed the State Water Board to consider the relative per capita water usage of each supplier's service area and to require those areas with high per capita use to achieve proportionally greater reductions than those with low use.

In May 2016 Executive Order B-37-16 was signed which builds on the conservation accomplished during the recent drought and implementation of the Governor's California Water Action Plan. It required longer-term water conservation measures, including permanent monthly water use reporting, new budget-based water use targets for California communities, bans on clearly wasteful practices, as well as strengthened Water Shortage Contingency Plans and improved Agricultural Water Management Plans for drought planning with metrics for quantifying water use efficiency. The State Water Board replaced the state-developed urban water conservation standards with locally-developed conservation standards based upon each agency's specific circumstances. The regulation required individual urban water suppliers to conduct a 'stress test' and self-certify the level of available water supplies they have assuming three additional dry years, as well as the level of conservation necessary to assure adequate supply over that time.

In February 2017, the State Water Board re-adopted and extended EO B-37-16, while agreeing to consider repeal of the regulation in May following a more thorough review of the state's water supply conditions. In effect, the Board's action continues the stress test approach, existing water use reporting requirements, and prohibitions on wasteful water use practices that have been in place since 2015. The current regulation does not require mandatory conservation unless water suppliers determine that they have a shortfall. The State Water Board continues to assess compliance, using suppliers' monthly reported data.

Following unprecedented water conservation and plentiful winter rain and snow, the Governor implemented Executive Order B-40-17 which lifted the drought emergency in most of California while maintaining water reporting requirements and prohibitions on wasteful practices.

While some areas of the state have indeed experienced significant snow and rainfall in recent months, groundwater storage remains depleted in many areas due to the continued impact of prolonged drought. Hydrologic conditions are subject to change and, while recent precipitation has helped improve water supply conditions, the Main San Gabriel Basin remains at record lows. The Upper District remains active in its conservation efforts by implementing new programs and outreach that emphasize water efficient practices as a continued way of life for its residents and businesses. Upper

District's approach is in keeping with the State's long-term framework for conservation and drought planning titled, "*Making Conservation a California Way of Life*", which outlines implementation of EO-B-37-16.

Recycled water and conservation programs are fundamental to achieving long-term water use efficiency goals set forth under this legislation. While Upper District is not directly required to report, it strives to assist its water purveyors that are urban water suppliers in achieving and maintaining compliance with their conservation efforts and water supply goals. Upper District offers various programs targeted at residential, commercial/institutional, and outdoor water savings that San Gabriel Valley retail water providers can utilize. Any standby charge revenues not fully utilized to fund the Water Recycling Program are used to pay for a portion of the Water Use Efficiency Program.

While water conservation does not produce new water, it effectively increases the amount of available water by improving water use efficiency and reducing per capita water usage. Thus, water use efficiency can decrease the rate at which the demand for water increases as the region's population continues to grow. As a result, the Upper District's Water Conservation Program helps manage available water supplies in the most efficient manner possible. In this way, regional water conservation programs effectively supplement new local water supply to meet the immediate needs of a growing population. For the long-term, water use efficiency allows the Upper District to defer some capital expenses for the development of new supplies and helps in reducing the quantity of new water supplies necessary to meet anticipated water demands.

Over the years, the Upper District's water conservation efforts have been effective at saving substantial quantities of water. Since 1992, the Upper District's water use efficiency program has yielded over 79,059 AF (26 billion gallons) of water savings.

VIII. WATER SUPPLY ISSUES

Throughout California's history, the development of reliable water supplies has lagged behind the growth in population and the corresponding demands on available resources. Today, achieving a water supply that is less dependent on imported water is the greatest challenge and most critical goal of all water agencies in Southern California. The Upper District's water supply and financial management plans offer a prudent and efficient strategy for meeting the water resource needs of the region in a cost-effective and environmentally responsible manner.

IX. LONG-RANGE FINANCIAL PLANNING

One of Upper District's goals is to continue focusing on selected revenue sources that will further strengthen its financial position. Pursuit of this goal will help ensure that Upper District has the option of choosing a financing alternative that is most advantageous to water rate payers and property owners. A strong financial position will provide the Upper District with the opportunity to minimize its cost of capital, stabilize cash flows and improve the economics of beneficial projects without sacrificing future financial or operating flexibility.

Two additional goals of the financial plan are: 1) to ensure that there is an adequate revenue stream to fund the proposed capital improvement program, and 2) to assure that the blend of revenues will distribute the costs of the facilities and water service appropriately and equitably to the program's beneficiaries.

X. COST RECOVERY

The Upper District territory includes a wide variety of land uses. Generally speaking, all land uses benefit from a reliable water supply. Therefore, the cost to produce new water resources cannot be recovered solely through the sale of recycled water to just a few users or through avoided costs generated by conservation. Recycled water and effective water conservation programs allow greater flexibility by extending the potable water supply. The availability of recycled water as an additional source becomes a benefit to all parcels and users within the Upper District. Therefore, a portion of the cost of these program benefits should be recovered through a mechanism that apportions the cost in relationship to potential benefit. Depending on the extent of the development, the Upper District's cost of water production could be significantly reduced over the long-term compared to continued reliance on imported water supplies.

Upper District's current operating revenue sources mainly include a surcharge on imported water purchases and the standby charge on parcels. In prior years, the use of standby charge revenue has been a key element in the funding of the Upper District's recycling and conservation programs.

XI. EQUITY OF STANDBY CHARGE

One of the many major benefits that accrue from the use of the standby charge is the independence of the revenue from actual water demand. Traditionally, rate and revenue studies have shown that a single revenue source does not adequately address the distribution of costs and benefits. In some instances, rather large benefits accrue to properties that use little or no water and would otherwise contribute very little financially for the value received.

The direct benefits derived from the Upper District's comprehensive program include: 1) highly reliable alternate water supply for non-potable uses, 2) replenishment of groundwater in lieu of more expensive new water supplies, and 3) increased water use efficiency by reducing per capita consumption. Since supplying non-potable water to non-potable users reduces the demand on the potable water supply, both potable and non-potable water users benefit from the Upper District's program. A blend of water sales (including recycled) and standby charge revenue sources recovers both the direct cost of water use as well as the cost of the tangible and direct benefit of improved water supply reliability.

XII. REVENUE STABILITY

In addition to providing a means of equitable cost sharing, the standby charge generates a stable source of revenue. In other words, standby charge revenue is not dependent upon weather cycles and/or water sales fluctuations. Stable (fixed) revenue sources assist the Upper District in meeting its financial and capital obligations under all cyclical demand conditions that, in turn, are reflected in increased borrowing efficiencies, lower interest rates, and other cost savings.

XIII. PROPOSED RATE AND METHODOLOGY – FISCAL YEAR 2020/2021

In FY 2019/2020 the Upper District standby charge rate was \$10 per acre per year or \$10 per parcel less than one acre per year. This report recommends that Upper District continue the previously adopted formula and methodology for assessing the standby charge at a rate of \$10 per acre per year or \$10 per parcel less than one acre per year for Fiscal Year 2020/2021. The proposed rate is for Fiscal Year 2020/2021 only and may or may not be maintained in subsequent years. At the rate of \$10 per acre, the standby charge will provide approximately \$2.05 million in revenue for Fiscal Year 2020/2021.

XIV. PROPOSED USE OF STANDBY CHARGE REVENUE

Appendix I demonstrates that the standby charge revenue is needed to fund the District's water recycling and conservation programs. The **continued** use of standby charge revenue to fund the capital program is recommended.

APPENDIX I

Fiscal Year 20/21 Preliminary Budget

Beginning Balance All Funds (Projected Balance)	17,682,000
Revenues	
Imported Water Sales	25,802,000
MWD Gross Standby Charge	1,978,000
Recycled Water Sales	1,744,000
Upper District Standby Charge	2,050,000
Water Conservation Program Revenue	440,000
Recycled Water Program Revenues	131,000
Taxes	425,000
Interest and Other	257,000
Total Revenues	32,827,000
Expenses	
Water Purchases	22,961,000
MWD Ready-to-Serve Charge	2,207,000
Recycled Water Purchases	467,000
Administrative Expenses	2,486,000
Water Conservation Program	2,069,000
Water Quality and Supply Program	1,114,000
Recycled Water Program	1,341,000
Stormwater Program	25,000
Capital Program	288,000
Total Expenses	32,958,000
Ending Balance All Funds	17,551,000