

**REPORT TO THE BOARD OF DIRECTORS
BOARD MEETING OF January 10, 2023
AGENDA ITEM NO. 8A**

GDPUD

AGENDA SECTION: Action Items

SUBJECT: **2020 URBAN WATER MANAGEMENT PLAN AND WATER SHORTAGE CONTINGENCY PLAN UPDATE**

PREPARED BY: Adam Brown, Water Resources Manager

APPROVED BY: Nicholas Schneider, General Manager

BACKGROUND

The Georgetown Divide Public Utility (District) has prepared this report in compliance with the Urban Water Management Planning Act (Act), as amended (California Water Code, Division 6, Part 2.6; §10610, et. seq. established by Assembly Bill 797, 1983). All urban water suppliers defined in Section 10617; either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers, or supplying more than 3,000-acre feet (ac-ft) annually are required to prepare an UWMP. Urban water suppliers are required to prepare and/or update their Urban Water Management Plan (UWMP) and submit a complete plan to the Department of Water Resources (DWR) every five years.

DISCUSSION

On May 11, 2021, the Board of Directors adopted the 2020 UWMP after proper public notification and public hearing which was subsequently submitted to DWR prior to the July 1, 2021, deadline. On May 18, 2022, the District received comments from DWR to correct sections of the UWMP including:

1. SB X7-7 2020 Target; and
2. Minor table corrections.

Events that transpired during 2022, including drought conditions and Mosquito Fire, allowed the District to further evaluate the needs of the District and revise the 2020 UWMP. Items addressed included:

Stumpy Meadows reservoir capacity

- Storage capacity of 21,206 acre-feet.

2020 Census

- Persons per Household of 2.53.

Water Shortage Contingency Plan – Fire Mitigation

- Address Georgetown Divide fire severity and use of Board of Director's discretion.

DWR comments

- SB X7-7 and minor table corrections.

Specifically, major revised sections are included and are attached:

- Section 3.1.3;
- Section 3.4.2;
- Section 5.2;
- Section 7.0;
- Section 8.5; and
- Section 8.5.1.2.

For comparative purposes, the submitted 2020 UWMP can be found on the District's website at <https://www.gd-pud.org/2020-urban-water-management-plan>.

FISCAL IMPACT

Cost will include District staff to revise, notice and submit updated UWMP.

CEQA ASSESSMENT

This is not a CEQA project.

RECOMMENDED ACTION

Staff recommends the Georgetown Divide Public Utility District Board of Directors provide any comments for inclusion into the UWMP. The draft of the UWMP will be included in the February meeting and adopted during the March meeting.

ATTACHMENTS

1. Revised sections

area encompasses approximately 75,000 acres (112 square miles) with approximately 30,000 acres currently having some form of water service available.

The District currently provides treated water service to the communities of Georgetown, Buckeye, Garden Valley, Kelsey, Spanish Dry Diggins, Greenwood, Cool, and Pilot Hill. The entire service area is located within an unincorporated area of El Dorado County. Through combined and separate infrastructure, portions of these same communities also receive untreated water for irrigation purposes.

Elevations in the District's service area vary from 500 feet above mean sea level (amsl) at the southwestern boundary to 6,100 feet amsl at Silver Hill on the eastern boundary. The relief varies from rolling foothills in the west to steep slopes and deep canyons in the upper elevations. The community of Georgetown is located at the top of the Divide at an elevation of 2,654 feet amsl.

3.1.3 Source of Supply – Stumpy Meadows Surface Water Diversion

The primary source of water to the District is the Stumpy Meadows Project, which includes storage facilities, diversion structures, and a conveyance system to the service area. The project was completed in 1962 using funds from a Public Law 984 Loan administered by the Mid-Pacific Region of the U.S. Bureau of Reclamation.

Stumpy Meadows Reservoir is formed by a 162-foot-high rock and earth fill dam (Mark Edson Dam) located on Pilot Creek. The full pool operating level is the spillway crest of the dam at an elevation of 4,262 feet amsl, with a storage capacity of 20,000 ac-ft and a surface area of approximately 330 acres. The minimum pool elevation is 4,170 feet amsl with a dead pool storage of 1,200 ac-ft, and a usable storage of approximately 18,800 ac-ft. The outlet structure is a screened, 25 square-foot precast reinforced concrete intake tower with a sill elevation of 4,132 feet amsl (130 feet below the crest of the spillway). Water released from the reservoir is funneled through a 30-inch-diameter welded steel pipeline which discharges to Pilot Creek. Flows are controlled by a Howell-Bunger valve at the discharge end of that line, with the water being redirected into Pilot Creek. The catchment area of the watershed supplying the Stumpy Meadows project is approximately 11.7 square miles, ranging in elevation from 4,170 to 6,190 feet amsl (Figure 2). The spillway is an unregulated over pour section constructed in a horseshoe configuration. The spillway discharges into a concrete chute which rejoins Pilot Creek approximately 500 feet below the toe of the dam.

On July 1, 2022, a *Stumpy Meadows Volume Survey* was completed. The revised storage capacity or full pool of Stumpy Meadows Reservoir was calculated at 21,206 ac-ft at 4,262 feet amsl. The minimum pool elevation is 4,170 feet amsl with a dead pool storage of 1,870 ac-ft, and a usable storage of approximately 19,335 ac-ft.

the following sections, the District expects future years to have downwards trends of total precipitation along with a trend towards more rainfall and less snowfall resulting in a shift in spring runoff occurring earlier in the season. The District has safeguards to protect treated water reliability during both single and multiple year dry periods. These safeguards are discussed in detail in the following Sections.

3.4 Service Area Population and Demographics

The District provides treated water to a total of 3,689 active customers. Customers are tracked under five water use categories: residential; multi-family; commercial; governmental/institutional and large landscape service. The District also provides irrigation water service.

3.4.1 Customers

In 2020, treated water customers consisted primarily of residential customers, with 96% of the District's accounts serving single family (3,595 accounts) dwellings. The District also had 10 multi-family units accounts serving 94 households. The District is fully metered with the exception of three unmetered governmental connections. The District had 138 commercial/governmental accounts in 2020, which represent 4% of the total treated water accounts in the District. There were also seven large landscape accounts account for 0.2% of the total treated water accounts. The seven large landscape accounts included a nine-hole golf course owned by the Auburn Lake Trails Property Owner's Association, two other landscape accounts, two cemeteries and one Georgetown Divide Recreation District Park.

In 2020, there were 382 irrigation accounts where the District provided untreated raw water representing 74% of total water usage by the District. Irrigation water is used in a variety of ways on the Divide, including: Christmas tree farms, vineyards, pasture, orchards and hay production. This untreated raw water usage is not included in the analysis of the treated water system demands; however, it is discussed in the DRA.

3.4.2 Population

To estimate the 2020 population in the District's service area the persons per household (pph) census data for El Dorado County was used. The calculated pph for El Dorado County was 2.53. Census data is presented in Appendix A. Using a residential and multi-family residential households total of 3,689, the District's estimated service area population in 2020 is calculated to be 9,333.

3.4.3 Population Projections

The County of El Dorado's 2014 *General Plan* last amended in December 2019 (*General Plan*) cited an annual growth rate of 1.03 percent. We applied this factor to the District's population growth

During the target 2020 year the District recorded a GPCD of 173, six points higher than the Method 3 target of 167 GPCD for Sacramento River Hydrological Region. The District views the calculated 2020 GPCD as an outlier. GPCD has been trending down since 1995 and is anticipated to continue to trend down. Table 5-2 details the Districts 2020 compliance target. SBX7-7 verification forms are included in Appendix D.

Table 5-2: 2020 Compliance <i>Retail Supplier or Regional Alliance Only</i>							
Actual 2020 GPCD*	Optional Adjustments to 2020 GPCD					2020 GPCD* (Adjusted if applicable)	Did Supplier Achieve Targeted Reduction
	Extraordinary Events*	Economic Adjustment*	Weather Normalization*	TOTAL Adjustments*	Adjusted 2020 GPCD*		
173	0	0	0	0	173		NO

**All values are in Gallons per Capita per Day (GPCD)*

The District will submit a supplemental attachment detailing a plan to meet GPCD requirements.

5.3 Service Area Population

As discussed in Section 3.4, the District utilized the person-per-household method to calculate the service area population. An occupancy rate of 2.53 was used to calculate GPCD.

7.0 WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

The District has historically taken and continues to take steps to improve water service reliability. The District has an ongoing CIP to address system reliability, increase water conservation and maximize the available water supply in the future.

In addition to forecasting domestic water demands, the District is also accounting for irrigation water demand for the next 20 years. The District adopted Ordinance 2005-01 in 2005 which allows District staff to respond to reliability issues predicted by the General Plan estimations of growth in irrigation water service. A copy of this ordinance can be found in Appendix H.

Requests for irrigation water service and associated demand are evaluated each April based on the estimated available supply. Irrigation water commitments will not be permitted unless there is sufficient capacity to meet the service requested. Regardless of the estimated available water supply, the maximum number of miner's inches allocated to irrigation customers is limited to the equivalent of approximately 5,000 ac-ft.

During a normal water year, the operation of the irrigation water system begins in about the middle of April when additional supply water from Stumpy Meadows is introduced into the conveyance system. All regulating reservoirs along the system are filled and the ditches are saturated and usually are ready for delivery of irrigation water to irrigation customers by May 1. Irrigation water is delivered to customers through standard orifices and is measured in miner's inches. The contracted amount is delivered at a continual rate, with each customer managing the usage of water.

The irrigation season is generally from May 1 through September 30 of each year but can be shortened in the event of a drought declaration or insufficient water to meet the full season demand. For example, in 2015, the irrigation season was shortened by approximately 41% to 63 days (June 1 through August 2, 2015) resulting the reduction in delivery (or conservation) of nearly 2,800 ac-ft of water to irrigation customers. **The irrigation season may also be shifted to best meet customer demand and climatic conditions.**

The District has ongoing management practices and conservation programs to reduce losses in the water conveyance system by lining ditches with concrete and gunite, replacing ditches with pipelines, and improving operations that affect losses. This program helps the District conserve water and increase the life of the District's water supply. In 2020, the District estimated operational losses in the ditch conveyance system of approximately 3,619 ac-ft of water. Improved water conservation practices will continue to decrease the amount of water losses in our system. However, conservation alone may not be sufficient to meet the longer-term (>20 years) projected demands within the District's service area, and eventually, identification of an additional water supply to supplement the Stumpy Meadows Project may be necessary to meet the District's future demands.

to clearly define in advance the base periods that will be employed for each user class during the drought event.

8.5.1.1 Overall Guidelines

Below is a list of drought guidelines developed to assist staff in managing the water shortage event:

- 1) The District will strive to stay within each stage of drought for a complete billing cycle; (2 months) for effective public outreach and the equitable implementation of drought rates (if applicable).
- 2) Drought stage demand reductions will be quantified by output at the water treatment plants during all stages; however, in Stages 4 to 6, meter reads may also be necessary to determine compliance with individual allocations and reduction targets.
- 3) This Water Shortage Contingency Plan shall be reviewed and updated every year (or as needed) due to changes in water supplies, operations, expected water demands or other relevant factors.

8.5.1.2 Base Period Definitions

Below is a list of base period definitions developed to assist staff with the implementation of water use restrictions and demand reduction measures during a drought or other District or State mandated requirements.

- 1) The base period for single-family residential customers is defined as the District-wide average consumption per household – calculated using a three-year average of the consumption data for all single-family residential customers, divided by the total number of residential customers.
- 2) The base period for multi-family residential customers is defined as the District-wide average consumption per dwelling unit – calculated using a three-year average of the consumption data for all multi-family residential customers, divided by the total number of dwelling units.
- 3) The base period for commercial, governmental, and institutional customers, with meters serving both building and landscape, is defined as the three-year average of the individual customer's consumption data.

The base period for landscape irrigation only customers is defined as the three-year average of the individual customer's consumption data.

On November 21, 2022, California Department of Forestry & Fire Protection (Cal Fire), Fire and Resource Assessment Program (FRAP) released Fire Hazard Severity Zone Map for El Dorado

County. Approximately 80% of the District's service area is located within an areas classified as "Very High." Seasonal irrigation supply distributes a water source throughout the District that is often utilized to support fire suppression efforts. This resource was critical during the Mosquito Fire incident of 2022. Therefore, as mentioned above, the Board of Directors reserve the right to modify irrigation season to mitigate fire risk to District customers and community as a whole. Fire hazard map is included in Appendix J.

8.5.2 Water Supply Emergency Response Plan

The District's Emergency Response Plan (ERP) was prepared to guide the District's response to a sudden water shortage or water quality emergency such as might occur in the event of significant system damage from a major earthquake, or during a prolonged power outage, a fire, or in the event of a water quality emergency from bacteriological or chemical contamination of the water supply. Key provisions of the plan are summarized below.

The District's primary emergency operations center would be created at the District office, at 6425 Main St. Georgetown CA. The District office is equipped with radios, telephones, telemetry equipment, emergency equipment, and supplementary documents and supplies. The emergency operations center would be the central point of coordination for government services, communications, and emergency public information. Communication protocols have been established and damage evaluation procedures have been defined. In the immediate period following a major disaster, such as a fire, the District's initial task would be to evaluate the water supply system and to isolate breaks in order to minimize storage losses as quickly as possible.

The emergency operating center staffing would include the General Manager or his/her designee plus additional staff to help coordinate disaster control activities and communicate with the public. Other key District personnel would be assigned specific roles depending on the magnitude of the emergency as well as the time of occurrence. On non-business days and after hours, the District maintains 24-hour response capability with the assignment of trained on-call workers, which can be summoned by calls from the District emergency phone service or the local Police and Fire Departments.

The District has assembled an inventory of equipment and spare parts and maintains key vehicles in a "ready to respond" condition. The District also has arrangements with vendors to obtain a backhoe to perform emergency and underground work, if needed. Crews would assemble at the District Office and be taken to the emergency work site by District personnel who would also be responsible for operating any valves necessary to isolate a water main break and oversee the emergency repair work.

increase efficiency where possible, and provides loans and grants to achieve efficiency in water and energy. This information can be found at www.owue.water.ca.gov.

DWR Drought Conditions: A webpage providing State and regional updates with regards to water conditions. More information can be found at <http://www.water.ca.gov/waterconditions/>

U.S. Bureau of Reclamation Drought Program: Aids federal water contractors and other interested parties in a wider view of drought conditions, encompassing the western United States. Staff from this program will also provide technical assistance, grant and loan funding, and expertise in drought planning. Information on this Bureau program can be found at www.usbr.gov/drought.

California Urban Water Conservation Council: An organization serving water purveyors and environmental stakeholders through a collaborative process. Provides best management practices (BMPs) for municipal water conservation, as well as technical expertise for the implementation of these BMPs. More information can be found at www.cuwcc.org.

8.5 Shortage Response Actions

The reservoir water storage level is reviewed annually by the District's Board of Directors during the regular April Board meeting held on the second Tuesday in April. Based on this water storage level, the Board of Directors declares the type of water year the District will be facing prior to the release of irrigation water in May. Historically, the reservoir storage observed during the second week of April has triggered the declaration of drought stages by the District Board of Directors. These stages range from voluntary to mandatory reduction goals for both treated water and irrigation accounts of up to 50%. It should be noted that the District Board of Directors can declare, modify or end a water shortage declaration based on remaining supply, **forecasted weather scenarios and wildland urban interface fire conditions** anytime of the year.

The six stages of the WSCP correspond to progressively increasing estimated shortage conditions and align with response actions the District would implement to meet the severity of the impending shortages. There are a number of voluntary and mandatory demand reduction measures the District can implement as response actions to address shortage levels, these measures and are identified in Table 8-2. Based on experience gained during the last drought, the specific response actions identified are aligned with a shortage level and should address the anticipated gaps between normal supply and demand conditions. For example, Level 1 response actions are expected to reduce overall water use by 10%.

There are other operational changes and supply augmentation measures the District can implement and they are included in Table 8-3. As stated in previous sections, water used by irrigation customers represents 70% of the overall water demands during a normal water season. The District can augment the water supply by shortening the irrigation water season or terminate the season in a Stage 5 or 6 Water Emergency. Irrigation season generally runs between May 1 and September 30, but it can be shortened depending on the water shortage condition.

Table 8-3: Supply Augmentation and Other Actions

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	How much is this going to reduce the shortage gap? <i>Include volume units used.</i>	Additional Explanation or Reference (<i>optional</i>)
1	Other - Shorten the irrigation season for all non-potable irrigation customers in alignment with shortage level	10%-500 AF; 20%-1000 AF; 30%-1500 AF; 40%-2000 AF; 50%-2500 AF	10% shorter season for Level 1 up to no irrigation for Levels 4-6
1	Expand Public Information Campaign	Residential Savings: 10%-150 AF; 20%-300 AF; 30%-450 AF; 40%-600 AF; 50%-750 AF	Inform the public using various media to conserve water; All sectors will be asked to reduce their usage by 10% to 50% depending on shortage level
1	Improve Customer Billing	Unknown	Provide bill inserts on water conservation; include GPCD
1	Reduce System Water Loss	50 AF	
1	Decrease line flushing	0.3 AF	Routine line flushing will cease; Main flushing only on complaint basis
2	Offer Water Use Surveys	Unknown	The largest water users will be identified and provided with BMPs
3	Increase Frequency of Meter Reading	Unknown	The largest water users will be identified for more frequent meter reading & given BMPs
3	Increase Water Waste Patrols	Unknown	Distribution staff will increase patrols of largest water users
3	Moratorium or Net Zero Demand Increase on New Connections	0.33 AF/year/new connection	Prohibit new domestic connections
4	Other - Prohibit all landscape irrigation except trees	4 AF	
5	Other - Residential users allotted water for health and safety uses only	Residential users limited to 55 gallons/day/person. Estimated savings 900 AF	Residential customers will be limited to indoor water use for health and safety only
6			No additional action will be taken at this level

The following summarizes drought stage responses:

Stage 1 (Water Alert)	Up to 10% 19,086 ac-ft	Water supply is slightly restricted. Customers are informed of possible shortages and asked to voluntarily conserve up to 10 percent
Stage 2 (Water Warning)	Up to 20% 16,965 ac-ft	Water supply is moderately restricted. Additional voluntary and mandatory measures are implemented to achieve a demand reduction goal of up to 20 percent;

Stage 3 (Severe Crisis)	Up to 30% 14,844 ac-ft	Water supply is severely restricted. The enforcement of mandatory measures to achieve a demand reduction goal of up to 30 percent
Stage 4 (Critical Shortage)	Up to 40% 12,724 ac-ft	Shortage would require measures to reduce water use by 40%;
Stage 5 and 6 (Water Emergency)	Up to 50% >50% <10,603 ac-ft	Water supply is extremely restricted. This would require water rationing for health and safety purposes in order to achieve a 50 percent reduction of demands.

State law dictates that public health and safety be prioritized over irrigation and agriculture in profoundly serious water shortage conditions. Public health and safety needs rely on the treated water system and include fire protection, sanitation, medical/health clinics and other critical needs.

The priority of domestic water over irrigation water is a long-standing policy in the District and has been successfully used during periods of reduced water supply. No new irrigation accounts will be accepted during Drought Stages 2 to 6. However, the Board has the discretion to limit new irrigation customers at any time when it is deemed necessary. Stage response action reductions will be applied to untreated irrigation customers by implementing a shortened season either by starting the season later than May 1 or end the season before September 30 or both to meet conservation targets or if there is a water emergency, the irrigation season could be terminated completely.

No new domestic accounts will be accepted during Stage 3 unless the parcel has been assessed for improvements through a legal process; but during Stage 4 to 6, no new domestic accounts will be accepted. Treated water for street washing never occurs in the District's service area because there is no public entity to provide such a service. Implementation of the stages are cumulative meaning that the declaration of a higher stage shall also include implementation of all the conservation methods described in previous stages. These actions shall be used as a starting point to meet targets and shall be monitored, as described later in this plan, for performance.

The District has not had to implement punitive enforcement measures, such as fines, during past droughts. An extensive public outreach program coupled with voluntary compliance by District customers was successful in achieving the required conservation goal in the past. However, the District can initiate enforcement actions at any time if voluntary compliance does not achieve the required target conservation level.

8.5.1 Drought Guidelines and Definitions

There are a number of circumstances during a drought in which the District would be required to make and implement decisions that are not solely based upon water supply availability, such as how long to stay in a drought stage, and how demand reductions should be quantified. It is also important

**REPORT TO THE BOARD OF DIRECTORS
BOARD MEETING OF January 10, 2023
AGENDA ITEM NO. 8B**

GDPUD

AGENDA SECTION: ACTION ITEM

SUBJECT: Mountain Counties Water Resources Association Election

PREPARED BY: Carol Arquette, Interim Board Clerk

APPROVED BY: Nicholas Schneider, General Manager

BACKGROUND

GDPUD is an Executive member of Mountain Counties Water Resources Association MCWRA and is entitled to vote for the MCWRA Board of Directors. The term of each Director shall be four (4) years. Board positions are considered at-large, not by district or area.

The Governance Committee through the Board Secretary solicited qualified, interested candidates from its executive membership (general managers/CAO's). The Governance Committee has reviewed the qualifications of the submitted candidates and nominated those qualified as per the Bylaws; Article VI, items H and I.

DISCUSSION

There are five Director positions up for election. GDPUD must vote for five (5) MCWRA Board members. Incomplete ballots will be excluded from the ballot count. Each MCWRA Executive Member organization shall be entitled to cast one (1) ballot and may not cast more than one vote for any one candidate for Director.

FISCAL IMPACT

None

CEQA ASSESSMENT

Not a CEQA Project

RECOMMENDED ACTION

Staff recommends the Board of Directors of the Georgetown Divide Public Utility District (GDPUD) vote on candidates for the MCWRA Board of Directors and submit a completed ballot.

ALTERNATIVES

Opt not to participate in the election of MCWRA officers.

ATTACHMENTS

1. MCWRA Election Letter and Ballot



www.mountaincountieswater.com

Board of Directors and Officials

Mike Lee (PCWA) – President
Scott Ratterman (CCWD) – Vice-President
Barbara Balen (TUD) – Secretary
Paul Molinelli, Jr., (AWA) – Treasurer
Randy Fletcher (YWA) – Director
Jim Holmes (County of Placer) – Director
Dan Miller (County of Nevada) – Director
Lori Anzini (EID) – Director
Lori Parlin (County of El Dorado) – Director

Dave Breninger, retired (PCWA) – Governmental Affairs Official
Tom Cumpston, Legal Counsel

Justin Caporusso – Executive Director

Executive Members

Amador Water Agency
Calaveras County Water District
County of Alpine
County of Amador
County of Calaveras
County of El Dorado
County of Nevada
County of Placer
County of Tuolumne
County of Yuba
El Dorado County Water Agency
El Dorado Irrigation District
Foothill Public Utility District
Georgetown Divide
Public Utility District
Grizzly Flats
Community Services District
Jackson Valley Irrigation District
Murphys Sanitary District
Placer County Water Agency
Tuolumne Utilities District
Twain Harte
Community Services District
Utica Water and Power Authority
Weimar Water Company
Yuba Water Agency

Affiliate Members

City of Folsom
Rancho Murieta
Community Services District

December 13, 2022

Electronic Copy Transmittal

Executive Membership General Manager/Chief Executive Officer

Regarding: MCWRA Board of Director Elections

Enclosed you will find a one-page ballot for the Mountain Counties Water Resources Association Board of Director elections. Executive members are entitled to one vote per organization. Your district/agency's MCWRA representative may vote by email by completing the enclosed form and returning a scanned copy to the Board Secretary no later than close of business, Friday, January 13, 2023.

There are five Director positions up for election. You must vote for five (5) MCWRA Board members. Incomplete ballots will be excluded from the ballot count. There are 5 nominees.

Important Note:

The term of each Director shall be four (4) years. Board positions are considered at-large, not by district or area.

The Governance Committee through the Board Secretary, solicited for qualified, interested candidates from its executive membership (general managers/CAO's). The Governance Committee has reviewed the qualifications of the submitted candidates and nominated those qualified as per the Bylaws; Article VI, items H and I.

VOTING: Election of Officers

All Executive Members may vote on the election of Directors. A ballot with the name, title, and organization of each nominee is issued and directed via email to the General Manager or Chief Administrative Officer (CAO) of each Executive Member organization. The General Manager or CAO of each Executive Member can vote on behalf of that Executive Member for Directors.

Each Executive Member organization shall be entitled to cast one (1) ballot and may not cast more than one vote for any one candidate for Director.

Voting for Board members will remain open 30 calendar days (Friday, January 13, 2023) or until all ballots have been cast, whichever comes first.

MOUNTAIN COUNTIES WATER RESOURCES ASSOCIATION



2023-2026 BOARD OF DIRECTORS ELECTION BALLOT

Instructions for voting:

Executive members are entitled to one Election Ballot per organization. You may vote by email by completing this form and returning a scanned copy to Barbara Balen, Board Secretary, no later than close of business, Friday, January 13, 2023.

Email to: barbjbalen@gmail.com

**MARK / CHECK FIVE (5) BOXES, DATE AND SIGN AS REPRESENTATIVE FOR
YOUR ORGANIZATION. MARKS / CHECKS FEWER OR GREATER THAN FIVE
WILL WEIGHT THE NOMINEES AND INVALIDATE THE BALLOT.**

- Jim Holmes, Placer County
 - Scott Ratterman, Calaveras County Water District
 - Don Blaser, Yuba Water Agency
 - Susan (Sue) Hoek, Nevada County
 - Susan Peters, Amador Water Agency

Agency/District

Important Note:

Board positions are considered at-large, not by district or area. Therefore, in considering your vote it is important to balance out the Board such that there is a good blend across the region of members on the board of MCWRA. Thank you for your consideration.

MCWRA 2022 Board Nomination Biographies

Jim Holmes

Placer County Board of Supervisors

I consider it an honor and a privilege to represent Placer County's Third Supervisory District. The Third District includes a portion of North Auburn (home of the Placer County Government Center), the scenic and rustic communities of Ophir, Newcastle, Penryn, the Town of Loomis (where a small town is like a big family) and the majority of the City of Rocklin. As a former Wolverine, I am pleased to say that Sierra College, one of the top community colleges in the state, is in my district.

As the Third District Representative to the Placer County Board of Supervisors, I promise to be active in the community, to be available, to listen to all sides of the issues and make common sense decisions that are in the best interests of current Placer County citizens and future generations.

My greatest goals during my term of office are to preserve and protect the agricultural heritage of our beautiful county and insure quality, customer friendly government services.

Scott Ratterman

Calaveras County Water District

Scott Ratterman grew up in Calaveras County, attending San Andreas Elementary and Calaveras High School. Upon graduation from high school in 1976, Ratterman earned a business administration degree from Sacramento State University in 1981. By 1982, he was working in the insurance industry with an independent adjusting firm, and he continued on that career path for the next 22 years. In 2004, Ratterman took a job with Farmers Insurance Co., and he is currently employed there.

Outside of work, Ratterman is an active member of the St. Andrews Catholic Church in San Andreas, and is a member of the Knights of Columbus. He was also on the Calaveras Community Foundation Board from 2005 to 2012, serving as vice president for two years and chairing several committees. He also belongs to the La Contenta Men's Club.

In 2011, Ratterman responded to an advertisement seeking applicants for a Calaveras County Water District Division 1 Board of Directors appointment. Division 1 covers San Andreas, Mokelumne Hill, Paloma, Valley Springs, Burson, Wallace and parts of La Contenta. After being selected by the CCWD Board for an initial 6-month term, Ratterman was appointed by the CCWD Board again for a two-year term starting in January 2012. In 2014, he ran for reelection and was successful in winning a two-year term. In 2016, he ran for election again and won a four-year term ending in 2020.

Ratterman lives in San Andreas and is the single father of two grown children. When not busy with work or his duties as a CCWD Board member, he enjoys tennis, golf, boating, hiking and cross-country skiing.

Susan (Sue) Hoek

Nevada County Board of Supervisors

Well, I am just a plain ole country gal that loves the community she lives and works in.

I like to think I follow the footsteps of my great grandfather and grandfather by being active in our community. I am a supporter and partner of the 4-H and Future Farmers of America and enjoy hosting events at our family ranch so students can perfect their skills. I frequently host events, classes and demonstrations on behalf of the UC Cooperative Extension, Nevada County Resource Conservation District, Nevada Irrigation District, and other groups and organizations. You are never too old to learn.

I enjoy speaking at events and have been Mistress of Ceremonies at many dinners and public occasions that have benefited Nevada County agriculture. All this while I still manage the family's cow/calf operation. When new neighbors move to the "country" I love to help educate them about agriculture and livestock, where food comes from and the preservation of open space.

Before being elected District IV Supervisor I was very active in the community working with a variety of groups and organizations that include serving on the Nevada County Farm Bureau as a Board Member and past President for 2 terms; serving as a Director on the California Farm Bureau Federation District 15 Nevada/Yuba Sutter/Butte; serving as a Board member and past Chairman of the Nevada County Agriculture Advisory Commission; serving as a Board member and past President of the Nevada County Resource Conservation District; and serving as a member of the Penn Valley Area Municipal Advisory Council.

In addition to my public service, I am also a member of the Twin Cities Church and am affiliated with the Penn Valley Chamber of Commerce, Placer Nevada Cattlewomen, Tahoe Cattleman, and California Cattleman. I also served on the UC Sierra Foothill Research and Extension Center Research Advisory Committee, participated in the Nevada County Citizens Academy and am honored with a Blue Ribbon Award from the Nevada County Fair.

Having grown up here in Nevada County, I have seen many changes and not all for the good. We need economic growth while still maintaining that small county atmosphere. Fire safety and wildfire preparedness, homelessness along with mental health, and affordable housing have been and will continue to be critical issues for the community. It is critical that we address all our issues with compassion and understanding. This can be the difference between policy that simply checks the boxes and policy that addresses an issue in a meaningful way.

I am 5th generation born in Nevada County and live and work on the family ranch in Penn Valley that has been in operation since the late 1870s. My roots run deep in this community. I was

born and raised in Grass Valley in 1957 to Neil and Kathy Robinson. I've been married to Robert (Bob) Hoek for 32 years and we have 4 children: Cindy (Brian) Huber, Jamie Hart (Tim), Neila Johnsrud, and Willem Hoek, and 4 grandchildren: Logan and Leona Huber, Tate Johnsrud, and Tyler Bridwell.

Susan Peters

Amador Water Agency

Susan Peters was elected to the Amador Water Agency (AWA) Board in November 2018 and represents the City of Sutter Creek and portions of Pine Grove. Susan is a long-time resident of Amador County and currently resides in Sutter Creek with her husband, Robin. She holds a Bachelor's degree in Environmental Studies from UC Santa Barbara and a Master's degree in Urban Planning from UCLA.

A professional planner, Susan was the City Planner for the City of Jackson for 27 years and she currently consults with private and public clients on planning-related matters. Susan is also a member of the Sutter Creek Design Review Committee. In her spare time Susan teaches a fitness class, and enjoys cooking and gardening. Susan serves on the AWA Watershed and Regional Collaboration, Planning and Engineering, and Budget and Finance Committees, and represents AWA on the Amador Fire Safe Council. Her term will expire in December 2026.

Don Blaser

Yuba Water Agency

Don Blaser was elected in November of 2020 and took office on January 4, 2021.

Don and his wife Lavina live in historic downtown Marysville. They have two children and four grandchildren. Don and Lavina are both native to the Yuba/Sutter area. Don graduated from UC Davis in Agricultural Economics and worked with the family farming operation for 15 years. Don later became Vice President and Controller for Yuba City Steel Products. He and his wife created the Brick Coffee House Café 17 years ago.

Don is the past President of the Marysville Business Improvement District and former Board Member of the Yuba Sutter Chamber of Commerce. Don also sits on the Marysville Joint Unified School District Technical Education Advisory Committee and the Yuba Sutter Economic Development Corporation Comprehensive Economic Development Strategy committee.

**REPORT TO THE BOARD OF DIRECTORS
BOARD MEETING OF JANUARY 10, 2023
AGENDA ITEM NO. 8C**



AGENDA SECTION: ACTION ITEMS

SUBJECT: **SWEETWATER TREATMENT PLANT PUMP CONTROL VALVE RETROFIT**

PREPARED BY: Adam Brown, Operations Manager

APPROVED BY: Nicholas Schneider, General Manager

BACKGROUND

The process of replacing the Auburn Lake Trails Water Treatment Plant began in the mid-2000s it included many iterations including, but not limited to, Greenwood Lake Treatment Plant development, on-site storage tank construction and variable frequency drive lift pumps. On August 1, 2019, evaluations ended with the commission of the Sweetwater Treatment Plant (STP) following a two-year construction period. The STP is a three million gallon per day (MGD) facility that provides treated drinking water to nearly half of the District's customers within the communities of Greenwood, Cool, and Pilot Hill.

DISCUSSION

STP utilizes three lift pumps to pump finished water approximately 1.2 miles to Angel Camp Tank at an elevation difference of 250 feet. Connections before Angel Camp Tank are supplied by this operation. The pumping operation and elevation change cause pressure swings ranging from 40 to 60 pounds per square inch (psi) resulting in stress on District facilities. To mitigate these pressure fluctuations District staff has made operational changes, however, the existing equipment does not allow for additional adjustment.

District staff consulted with the District Engineer, other treatment plant facilities, valve manufacturers, and an electrical engineer to evaluate and determine mitigation methods. A technical memo is included as Attachment 1. The two-part solution includes installation of pump control valves and converting existing lift motors to variable frequency drive (VFDs) motors.

At this time District staff is proposing to install three in-line pump control valves that will be electronically integrated into treatment operations. VFDs will be added to future Capital Improvement Plan (CIP) budgets.

FISCAL IMPACT

The 2022/2023 CIP budget included \$80,000 to mitigate this issue. The current cost of pump control valves is \$120,000 and \$10,000 for electrical engineering programming, totaling \$130,000. The difference is \$50,000 which is proposed to be funded by deferred or partially deferred 2022/2023 CIP projects. Labor to install valves will be completed by District staff.

CEQA ASSESSMENT

This is not a CEQA project.

RECOMMENDED ACTION

Staff recommends the Board of Directors approve an adjustment to the 2022/2023 CIP budget by adjusting the cost of the Sweetwater Treatment Plant pump control valves from \$80,000 to \$130,000.

ATTACHMENTS

1. Technical Memo
2. Resolution 2023-XX

TECHNICAL MEMORANDUM

TO: Adam Brown, GDPUD
FROM: Dave Harden, PE (BEN|EN) and Ali Holladay, EIT (BEN|EN)
DATE: January 4, 2023
SUBJECT: Sweetwater Water Treatment Plant
PROJECT: Pump Control Valve Retrofit



I. Background

Georgetown Divide Public Utility District (GDPUD) provides treated water service to the communities of Georgetown, Buckeye, Garden Valley, Kelsey, Spanish Dry Diggins, Greenwood, Cool and Pilot Hill. The sole source of water is the Stumpy Meadows Reservoir. Raw water is released from Stumpy Meadows Reservoir to Pilot Creek. It is then diverted and conveyed through approximately 70 miles of supply ditch/conduits throughout the District. The raw water then flows to the 10-acre-foot surface water impoundment which serves the Sweetwater Treatment Plant (previously the Auburn Lake Trails Treatment Plant).

Upon completion of the upgraded Sweetwater Water Treatment Plant (WTP) in 2019, GDPUD began to receive complaints of pressure issues to approximately 200 services between the tank at Angel Camp Court and the WTP. Observations and testing have determined that when pumps are shutdown water surges back toward the WTP causing a loss of pressure at service connections. This increases the risk of water distribution pipe failure due to vacuum and water hammering.

The plant operates equipped with two 150 horsepower (hp) pumps capable of providing 1,400 gallons per minute (gpm) each and one 100 hp pump providing 750 gpm. The pumps are operated based on the demand at the Angel Camp Tank and alternate between the three pumps when demand is high enough to call for the larger pumps. When the pumps turn on there is an immediate surge of water into the pipes which can result in a hammering effect and pressure spikes. When the pumps turn off, there is an immediate reduction in flow causing a reverse surge, so to speak, causing a substantial reduction in pressure on the system. The dramatic fluctuations in pressure result in excessive wear and tear on the pipe system, unreliable water delivery to customers, customer complaints, energy inefficiencies, and the shorter life cycle of the WTP pumps.

II. Proposed Solutions

A. Mechanic Valving

Adam Brown, GDPUD's Operations Manager contacted Cla-Val to discuss possible valving solutions at the WTP. Adam also reached out to the newly contracted District Engineer, Dave Harden with Bennett Engineering (BEN|EN). Dave recommended that variable frequency devices (VFDs) be researched as a possible solution in conjunction with the mechanical valve options.

Collin Bryant at Cla-Val discussed the issue with Adam and proposed 660-11 Pump Control Valves. The 660-11 Pump Control Valve is designed to be installed at the discharge side of the pump and eliminate pipeline surges caused by the starting and stopping of pumps. When the pump is started the valve is closed and begins to open slowly, gradually increasing the pressure. When the pump is turned off the valve begins to close and slowly reduces flow while the pump continues to run. Collin with Cla-Val conducted a site visit on November 10, 2022 to discuss the issue with the operator and take measurements for proposed valving. Collin recommended a valve be placed on the discharge manifold of each pump. This will provide the operational flexibility needed to cover the

wide range of demand seen throughout the year and simplify programming within SCADA for pump and valve operations. Approximate cost and lead times can be found in Table 1.

B. Variable Frequency Drives

VFDs vary the frequency of an AC power source, which gradually increases or decreases the speed of the motor. VFDs provide operational flexibility to reduce or increase the motor speed, minimizing the water surge and pressure spike in the system. In addition, VFDs also increase the longevity of the motor by reducing the amount of stops and starts, allowing the motors to run at slower speeds for a longer period. Additionally, the pumps can operate in a wide range of flows, allowing the bigger pumps to be used during seasons of lower demand. The existing pumps at the WTP were designed to operate with VFDs but were not installed due to budgetary constraints. When the pump is turned on using a VFD it can start at a slower speed and ramp up, slowly increasing pressure in the system. Additionally, when the pump is turned off it can slowly lower the speed, maintaining pressure in the pipe and minimize pressure fluctuations. If VFDs were to be installed, each pump would require its own VFD and SCADA programming. Approximate costs and lead times are shown in Table 1.

C. Alternative Comparison

Table 1 - Cost and Lead Times

Option	Cost	Lead time
1- Pump control valve for each pump (3)	\$130,000	3-5 weeks
2- Variable Frequency Devices (3)	\$160,000	9 months

Due to the long lead times on the VFDs is not an immediate solution.

III. Recommendations

After discussing the pros and cons of each option with Adam, Colin, and the electrical engineer that worked on the design of the plant, the District Engineer recommends that three pump control valves are installed on the discharge side of each pump to address the immediate issue of pressure loss at services and reduce the risk of the pipe failures due to pressure fluctuations and water hammering within the system. The District Engineer also recommends that GDPUD add the installation of VFDs at the WTP as a capital improvement project in the future. Installation of VFDs will provide additional operational flexibility, energy efficiencies, and prolong the life of the pumps and the pump control valves.

Attachments:

1 - Valving Photos

2 – Valving Schematic



Figure 1 - 10" Pump Discharge with Increase

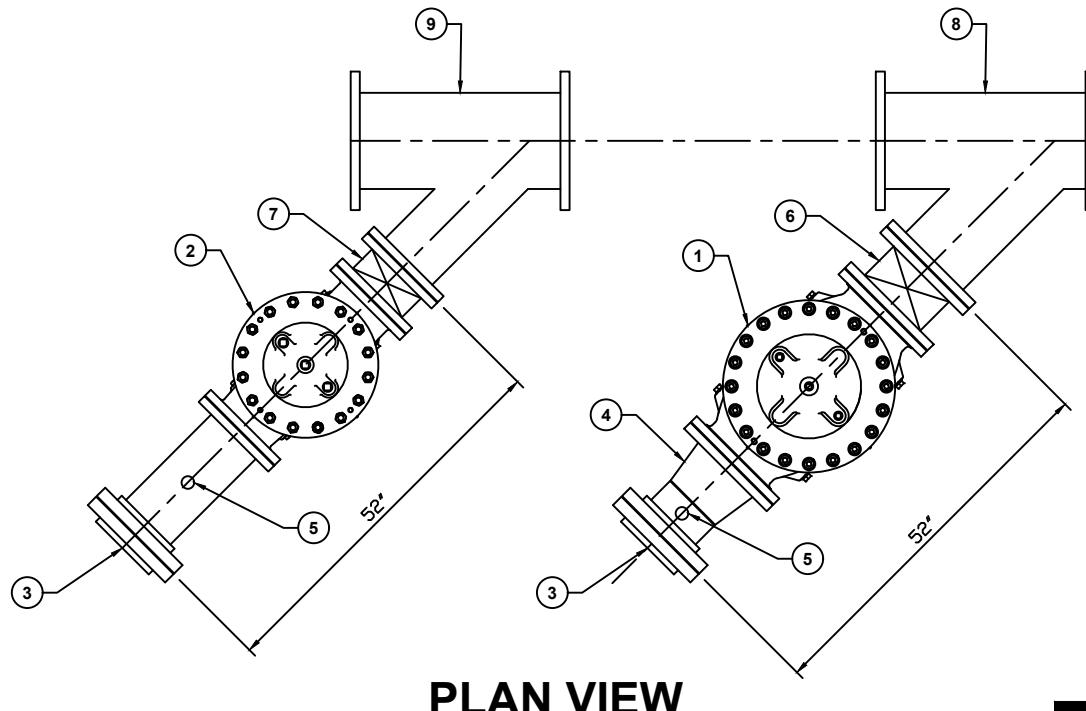


Figure 2 - 8" Pump Discharge with Increase



Figure 3 - Location Downstream of Pumps

BILL OF MATERIALS		
ITEM	QTY	DESCRIPTION
1	2	10" CLA-VAL MODEL 60-11 PUMP CONTROL VALVE (150# FLANGED)
2	1	8" CLA-VAL MODEL 60-11 PUMP CONTROL VALVE (150# FLANGED)
3	3	8" 300# PUMP FLANGE CONNECTION
4	2	10" X 8" CONCENTRIC REDUCER
5	3	1" NPT TAP
6	2	10" AWWA C504 BUTTERFLY VALVE (EXISTING)
7	1	8" AWWA C504 BUTTERFLY VALVE (EXISTING)
8	2	12" X 10" WYE/LATERAL (EXISTING)
9	1	12" X 8" WYE/LATERAL (EXISTING)



ESI FAB SYSTEMS
 15410 S MAHAFFIE ST
 OLATHE, KS 66062
 PH: 816-468-9119 - www.esiwater.com

EPS07406 - REV: 0

PROJECT: SWEETWATER TREATMENT
 PLANT - GDPUD

**RESOLUTION NO. 2023-XX
OF THE GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT
APPROVE AN ADJUSTMENT TO THE 2022/2023 CIP BUDGET
FOR SWEETWATER TREATMENT PLANT PUMP CONTROL VALVE RETROFIT**

WHEREAS, the Sweetwater Treatment Plant (STP) utilizes three lift pumps to pump finished water approximately 1.2 miles to Angel Camp Tank at an elevation difference of 250 feet;

WHEREAS, the pumping operation and elevation change cause pressure swings ranging from 40 to 60 pounds per square inch (psi) resulting in stress on District facilities;

WHEREAS, to mitigate these pressure fluctuations District staff has made operational changes, however, the existing equipment does not allow for additional adjustment;

WHEREAS, the two-part solution includes installation of pump control valves and converting existing lift motors to variable frequency drive (VFDs) motors, and

WHEREAS, District staff is proposing to install three in-line pump control valves that will be electronically integrated into treatment operations. VFDs will be added to future Capital Improvement Plan (CIP) budgets,

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS THAT
THE BOARD OF DIRECTORS APPROVE AN ADJUSTMENT TO THE 2022/2023 CIP
BUDGET BY ADJUSTING THE COST OF THE SWEETWATER TREATMENT PLANT
PUMP CONTROL VALVES FROM \$80,000 TO \$130,000.**

PASSED AND ADOPTED by the Board of Directors of the Georgetown Divide Public Utilities District at a meeting of said Board held on the 10th day of January, 2023, by the following vote:

AYES:

NOES:

ABSENT/ABSTAIN:

Mitch MacDonald, President of the Board
Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

ATTEST:

Nicholas Schneider, Clerk and ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

CERTIFICATION

I hereby certify that the foregoing is a full, true and correct copy of Resolution 2023-XX duly and regularly adopted by the Board of Directors of the Georgetown Divide Public Utility District, County of El Dorado, State of California, on this 10th day of January, 2023.

Nicholas Schneider, Clerk and Ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

CERTIFICATION

I hereby certify that the foregoing is a full, true, and correct copy of Resolution 2022-XX duly and regularly adopted by the Board of Directors of the Georgetown Divide Public Utility District, County of El Dorado, State of California, on the 13th day of December, 2022.

Nicholas Schneider, Clerk and ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

DRAFT

REPORT TO THE BOARD OF DIRECTORS
Board Meeting of January 10, 2023
Agenda Item No. 8D

GDPUD

AGENDA SECTION: ACTION ITEM

SUBJECT: **Kelsey School Seasonal Water Use Rate Consideration**

PREPARED BY: Carol Arquette, Interim Board Clerk

Approved By: Nicholas Schneider, General Manager

BACKGROUND

At the December 13, 2023, Board meeting Karen Bartholomew on behalf of the Kelsey School, a 501(c)3 nonprofit (EIN 54-2183064), stating they only use their water from April to November. With maintenance and insurance on an old building, it becomes a hardship to pay for water when not in use.

DISCUSSION

They are asking the Board to consider some sort of seasonal rate consideration for the months not in use.

General Manager Nick Schneider recommended bring the matter back to the Board later. This would give staff to investigate potential options.

Staff suggests the following options:

1. **Option A** — As a 501(c)3 Nonprofit the District would allow Kelsey School qualification for the Low-income Rate Assistance Program (LIRA) which allows a 25% discount on the Base Service Charge for a single facility.
 - a. Representing a \$92.64 savings per year
2. **Option B** – The Kelsey Community Association could apply for the LIHWAP program through El Dorado County, this would provide payment of the bill for a limited time.
3. **Option C** — The District would pull the Kelsey School meter for the non-use months and re-install it during the operational season.
 - a. This would allow the Kelsey Community Association to not receive bills for 2.5 months. Saving the Association approx. \$225. A meter reinstallation fee of \$285 would apply. A net loss of \$60 to the Association.

FISCAL IMPACT

The impact to the District for Option A would be lost revenue in the amount of \$92.64.
The impact to the District of Option B would be none
The impact to the District of Option C would be approx. \$60 in gained revenue.

CEQA ASSESSMENT

Not a CEQA Project

RECOMMENDED ACTION

Staff recommends the Board of Directors give direction on rate consideration for Kelsey School.

ALTERNATIVES

Deny the Kelsey School request for a rate consideration.

ATTACHMENTS

None