

CENTENNIAL WATER AND SANITATION DISTRICT'S ADOPTED



CENTENNIAL
WATER AND SANITATION DISTRICT

2024 BUDGET AND RATES

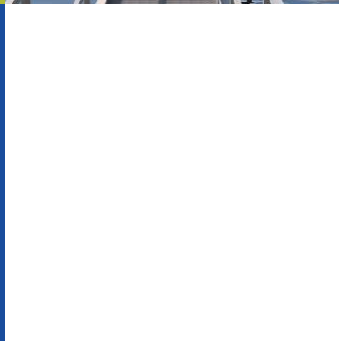
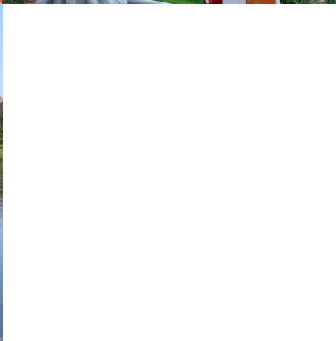
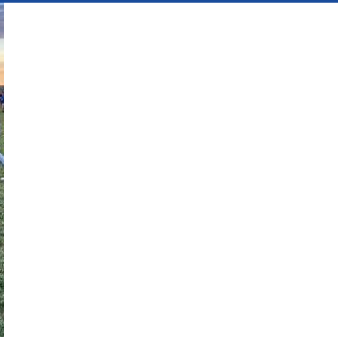




TABLE OF CONTENTS

TABLE OF CONTENTS	1
BUDGET TRANSMITTAL LETTER.....	3
ABOUT CENTENNIAL WATER	8
OUR VISION	9
OUR MISSION	9
WATER CONSERVATION	10
OUR CORE VALUES	11
BOARD OF DIRECTORS.....	13
ORGANIZATIONAL CHART	14
DISTRICT DEPARTMENTS	15
Water Operations	15
Wastewater Operations	15
Technical Management	15
General Management; Finance; Administration	16
STRATEGIC FOCUS AREAS.....	18
Water Supply Sustainability	18
Human Health and Environmental Stewardship	18
Financial Stability	19
Employee Engagement	19
Stakeholder Partnership	19
STRATEGIC INITIATIVES	20
FINANCIAL ENTERPRISE: BUDGET BY FUND	23
OPERATING REVENUES AND OTHER RECEIPTS	24
EXPENDITURES	26
BUDGET PROCESS.....	29
FINANCIAL POLICIES.....	30
2024 WATER RATE SCHEDULE	35
2024 BUDGET SUMMARY	38
2024 SOURCES AND USES: ALL FUNDS.....	41
2024 SOURCES BY TYPE	42
2024 USES BY TYPE.....	42
FLOW OF FUNDS	43
OPERATIONS FUND	45



CENTENNIAL

WATER AND SANITATION DISTRICT

OPERATIONS FUND- EXPENDITURES BY OBJECT	46
OPERATIONS FUND- PROGRAMMATIC CHANGES	49
CONTRIBUTED CAPITAL	50
CAPITAL PROJECTS AND MAJOR REPAIR	51
FUND BALANCE AND OPERATING TRANSFERS.....	52
DEBT SERVICE FUND.....	54
PURPOSE OF A CAPITAL IMPROVEMENT PLAN	56
PROJECT PRIORITIZATION	57
MAJOR CAPITAL PROJECTS	57
WATER ACQUISITION	66
GLOSSARY	74

BUDGET TRANSMITTAL LETTER

December 12, 2023

Centennial Water and Sanitation District
Board of Directors and Customers

The primary objective of the budget is to present the Centennial Water and Sanitation District (“Centennial” or “District”) short term expenditure plan developed with perspective of long-term needs and to identify the necessary resources and revenues. Long- and short-term planning is guided by District goals to provide all our customers with safe, clean, and reliable water services that meet all regulatory requirements, as cost-effectively as possible.

The Budget is a balanced allocation of resources to meet the continuing needs of Centennial’s customers. It meets all legal obligations mandated by federal, state, and local laws. It is set forth as the financial plan and operations guide to communicate to its customers.

The 2024 Budget was approved and adopted by the Board of Directors on December 12, 2023. As part of the approval process, \$48.3 million was appropriated for District operations including miscellaneous capital, water leases and debt service. The 2024 budget anticipates:

- A 1.4% or \$2.7 million increase in operating expenditures from the 2023 budget.
- An increase in operating revenues of 9.5% or \$4.3 million from 2023 budgeted revenues, generated by an increase in water and wastewater fees.

MANAGING CHALLENGES

Early planning for infrastructure funding needs has established a strong financial position and low rates compared to neighboring communities. As the community nears build out, the challenges facing the District have shifted from managing growth to the following:

WATER SUPPLY

Water is a precious resource in the arid west, and water supply management is a vital component of the operations of the District and a significant driver in the development of the budget. Annual and long-term planning for demand is impacted by cost, storage, and availability. While the District has ample groundwater to supply the community’s indoor water demand, the primary source over the past 38 years has been renewable surface water.

The water supply for Centennial Water’s service area is predominately renewable surface water from the South Platte River Basin. Surface water supply is supplemented as needed with deep groundwater from Denver Basin aquifers beneath Highlands Ranch. Since 1982, surface water has comprised approximately 85 percent of the District’s water supply.

The District holds long term and short term surface water leases in its portfolio to supply the needs in a cost effective manner. District leaders are active on several regional and state committees to identify water supply projects that will benefit the community now and into the future.

The District projects annual customer demand using a five-year rolling average of production plus the impact of anticipated new development. An estimate for available surface water is developed based on projected snowpack, reservoir storage levels, existing lease agreements and anticipated spot sales.

REGULATORY

Federal and state regulations can have significant impact on District operations. Several initiatives are under review that could impact future water and wastewater operations. Staff considers pending and potential requirement changes when evaluating infrastructure upgrades.

Regulation 85 nutrient limits have made necessary improvements to District wastewater facilities. The district issued \$75 million in debt in January 2019 to finance these improvements as well as address aging infrastructure.

The renewal of the Marcy Gulch Wastewater Treatment Plant Discharge Permit was approved by the Colorado Department of Health and Environment (CDPHE) in 2015 and the new permit became effective January 1, 2016. The permit expired December 31, 2020, but CDPHE has administratively extended the permit. The permit will stay in full force and effect until CDPHE issues a new permit.

The Marcy Gulch Plant discharges into a portion of the South Platte River that has some of the strictest discharge standards in the basin. More strict nutrient limits were included in the new permit and resulted in an 8-year compliance schedule that began in 2016 with hiring a consultant, obtaining funding, and creating a Wastewater System Utility Plan in 2017, followed by design in 2018 and construction beginning in 2019. Any improvements necessary to meet the schedule will be determined by engineering design and must be completed and operational by June 30, 2024.

Current regulatory compliance programs:

1. Centennial maintains an industrial pretreatment program to monitor industries and other businesses that discharge wastewater. Annual inspections at each facility are conducted and documented in a database. Periodic wastewater sampling is conducted as needed to monitor wastewater discharges. This program regulates and prevents hazardous chemicals or waste from being discharged into the sewer system and harming the wastewater treatment plant or passing through without treatment.
2. As part of national homeland security efforts, Centennial has developed an Emergency Response Plan to document procedures that will be taken to protect Highlands Ranch's water sources and distribution system from accidental or intentional contamination.
3. Centennial's water system includes backup systems to provide drinking water to our residents in the event of accidental or intentional contamination. Centennial has standby equipment to contain and recover spills into surface water supplies.
4. Centennial has an Oil Spill Prevention Control and Countermeasure Plan for all of its facilities. The plan provides guidelines and procedures to control and contain fuel or oil spills from storage or treatment facilities.
5. Security measures have been taken to secure and monitor Centennial's water and wastewater treatment facilities. State of the art monitoring equipment provides information to ensure that the facilities are safe and secure.

INFRASTRUCTURE

Maintenance of the District's infrastructure is essential to meeting customer demands. The District recently worked with Brown and Caldwell on condition assessments of the water and wastewater treatment plants and field assets. These assessments along with the use of Cityworks software will help staff to track maintenance and plan for significant replacements.

TECHNOLOGY

Technology changes continue to impact almost every aspect of our business. The District began implementation of Advanced Metering Infrastructure (AMI) in 2020. AMI completely automates the data collection process which can benefit the district by providing enhanced information for:

- Identification of loss or leak issues in the system
- Improved data for customers to use in their water budget decision making.

INVESTING IN THE FUTURE

WATER

Chatfield Reallocation is a regional storage project to increase storage capacity by 20,600 acre-feet with an estimated cost of \$153 million. Centennial's interest represents 31.24% of the total project. The project will store renewable surface water from Plum Creek and the South Platte River for storage and use as part of Centennial's water portfolio. Taking opportunities to increase surface water storage is critical to providing reliable water supplies in Colorado's semiarid climate and can help reduce dependence on non-renewable groundwater. The project was completed in 2021.

WISE is a regional project in conjunction with Aurora and Denver Water which combines the water district's infrastructures to improve water resource utilization for Aurora and Denver and deliver water to WISE Authority participants when available. The District began receiving deliveries in 2018.

Infrastructure improvements at the Water Treatment Plant (WTP) are ongoing to ensure continuity of operations and provide safe, clean drinking water to our customers. Phase 1B of improvements at the WTP are slated to begin in 2024 and the District will be issuing \$62 million in debt to pay for the improvements. Further detail on capital improvements can be found on page 57.

WASTEWATER

As mentioned above, the new discharge permit required an engineering assessment in 2016 which identified process changes to comply with the current CDPHE standards. The assessment not only included improvements necessary for the new standards, but also evaluated facilities at the treatment plant that were over 30 years old and may require renovation. These renovations will be done in conjunction with the overall improvements required to meet regulatory requirements.

CONCLUSION

Each year balancing available resources with the costs to provide quality services can be challenging. Centennial Water and Sanitation District is committed to providing quality water and wastewater services while managing resources wisely. The 2024 Budget enables the District to provide services which meet needs and enhance the quality of life for its customers. We encourage readers to read the Introduction and the narratives for each fund for more detailed information on the revenue sources and the outflow of funds in addition to reviewing the financial summaries.

Sincerely,

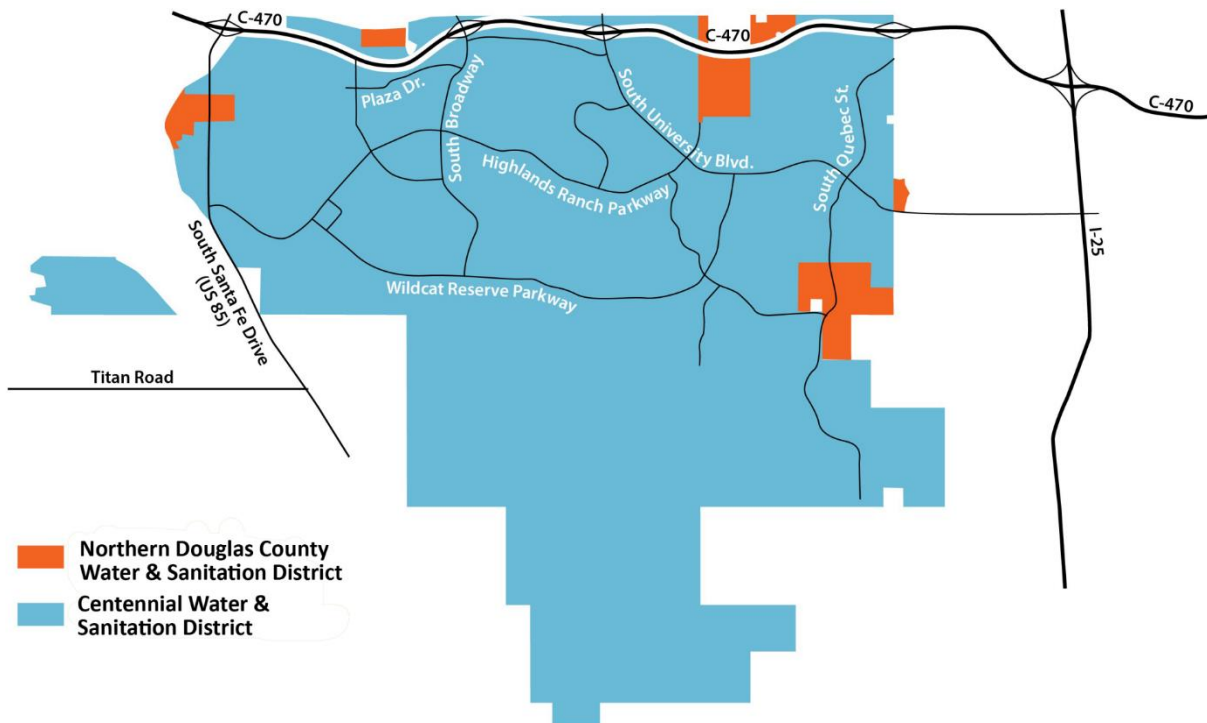
Zach Cartaya
Director of Finance and Administration
Centennial Water and Sanitation District

DISTRICT OVERVIEW



ABOUT CENTENNIAL WATER

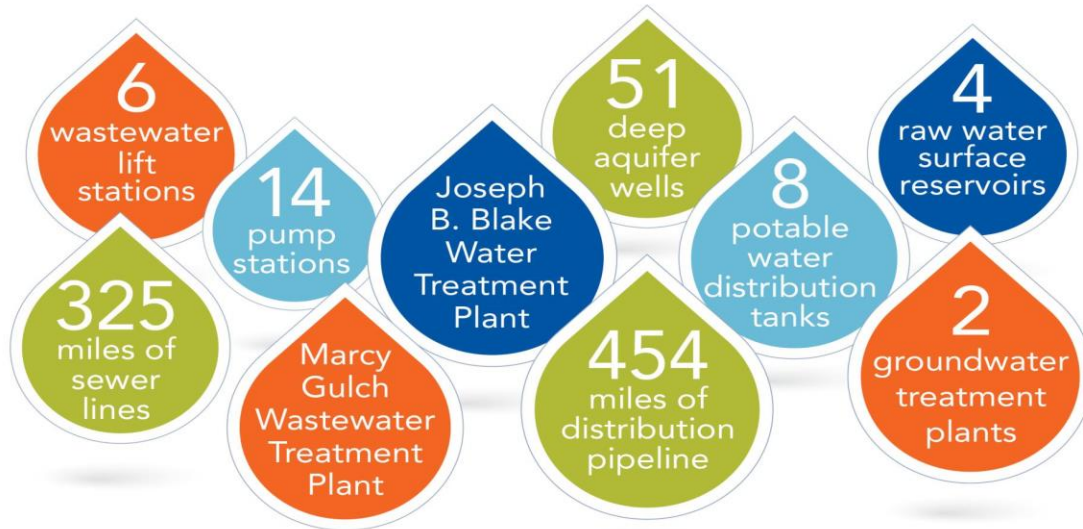
Centennial Water & Sanitation was formed in 1980 for the purpose of providing water and wastewater service through wholesale service agreements to areas of unincorporated Douglas County specifically the areas now known as Highlands Ranch Metropolitan District (HRMD) and Mirabelle Metropolitan District (MMD). HRMD and MMD in turn retail those services to the end users - the property owners. In 1988, utilizing identified extra capacity in its system, Centennial made a minor expansion to its service area by entering into another wholesale agreement with Northern Douglas County Water and Sanitation District (“NDC” or “Extended Service Area”):



The service area is in Douglas County, Colorado. Highland Ranch specifically has been touted as one of the most desirable places to live by numerous publications. Highlands Ranch enjoys a favorable economic environment relative to other Denver Metro area communities and local economic indices and points to continued long-term stability.

Centennial Water & Sanitation District provides high quality water through the state-of-the-art Joseph B. Blake Water Treatment Plant located in Highlands Ranch. Wastewater is also treated at the Marcy Gulch Wastewater Treatment Plant to meet stringent water quality standards before it is discharged.

Centennial Water’s treatment, pumping, and storage facilities include the following:



OUR VISION

To set the standard of excellence for community-based water and wastewater utility services through innovative practices in finance, operations, and resource management

Established in 1980, Centennial Water and Sanitation District has been the water and wastewater service provider to the community of Highlands Ranch for more than 40 years. Our partnerships with our community and other water providers (including Northern Douglas County Water and Sanitation District and the Mirabelle Metro District), are the key to our success. Our focus is always on the people we serve, who in 2024 will number more than 105,000. We strive to meet a standard of excellence by providing high quality water and wastewater services at a fair price, while being responsible stewards of precious water resources and our natural environment.

OUR MISSION

To provide safe, sustainable, and reliable water and wastewater services to our customers with superior quality and value.

Our customers rely on us to provide safe, clean, and reliable water, and to provide efficient and environmentally compliant wastewater treatment every day, without fail. In turn, we rely on our customers to provide the resources we need to get that job done efficiently and responsibly. Our complex system includes the rivers, aquifers, reservoirs, and canals that provide water; the plants that

treat water and wastewater; the hundreds of miles of pipelines and thousands of separate pieces of infrastructure that deliver it all to our customers; and almost 100 employees who keep things running day in and day out, 24 hours a day, 365 days a year.

We face many challenges, but we are prepared to meet them. Variable water supplies (from very dry to very wet years), aging infrastructure that must be replaced, increasingly stringent regulations, and rising costs all contribute to the complexity of providing exceptional service to our customers. We feel that our dedicated and experienced staff, along with our history of strategic planning, puts us in a strong position to take on challenges as they come. We also rely on our partners – customers, neighboring water districts, regional groups, and other local governments – to help us prepare for the future.

Financial strength is a non-negotiable element of our success. While we must balance the books every year, our bigger challenge is to ensure we have the resources available to uphold our commitment to provide the best possible – and completely reliable – water services to our customers for the next 40 years and beyond. To do this, we need responsible governance and control mechanisms that support our operations and investment not just for today’s customers, but for the generations to come. We owe our customers great service at a fair price, but we can’t afford to make shortsighted decisions in the near term that will leave excessive burdens for future customers. Therefore, we strive to set rates that meet the requirements of efficient and effective operations and investment for today and for our future.

WATER CONSERVATION



Water conservation and efficiency have been a key focus of the District’s demand management plan since its inception in 1980. In response to the 2002 drought, the District implemented a water budget with an increasing rate structure for all customers within the service area to encourage conservation, the first of its kind in Colorado. It has proven to be both an equitable and cost-effective solution to unnecessary water use. The District offers several efficiency rebates and incentives, including turf replacement, irrigation equipment retrofits, and partnerships with fellow conservation minded organizations. Commitment to community remains the life blood of the District’s conservation program. Outreach and education take center stage by way of free waterwise workshops, one-on-one consultations, and a myriad of accessible communication

platforms. The District has been adept at striking a balance to secure the future of Highlands Ranch, environmentally and fiscally.

OUR CORE VALUES

Safety

We work to ensure a safe environment for our employees and our customers.

Teamwork

We collaborate with internal teams and regional partners to achieve our goals.

Vision

We remain forward thinking to identify opportunities to benefit our community. We strive to provide leadership within the water and wastewater industry.

Excellence in Service

We strive for excellence in all facets of our industry, including customer service, water quality and environmental stewardship.

Integrity

We take pride in our work and demonstrate honest and ethical behavior to ensure we meet our obligations. We respect the valuable resources that we are entrusted with and are committed to protecting them.



ORGANIZATIONAL STRUCTURE



BOARD OF DIRECTORS

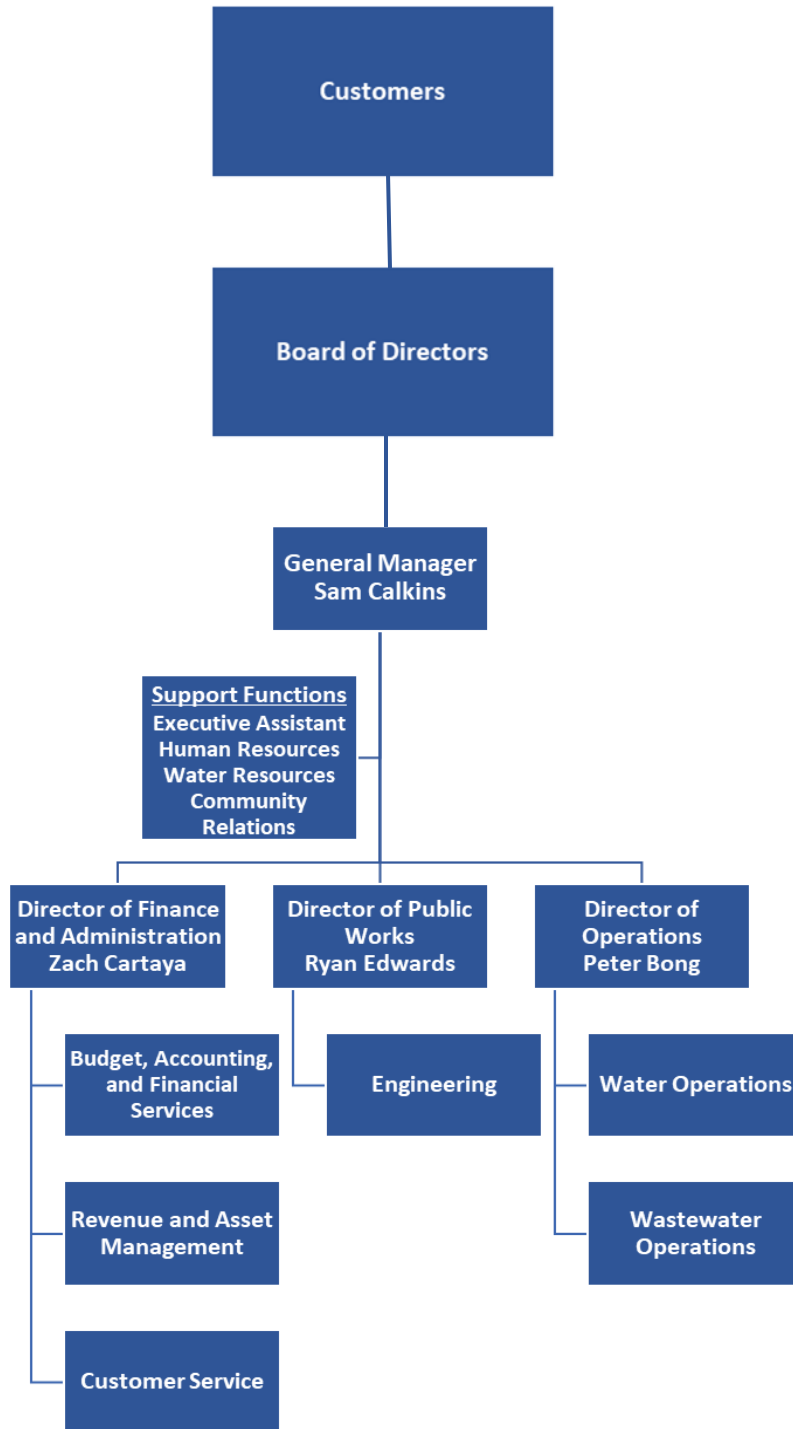
Centennial Water & Sanitation District is governed by a Board of Directors, which, pursuant to state law, consists of five members. To be eligible for nomination to the Board, prospective Board members must be electors of the district as defined by state law. Directors are elected to staggered four-year terms of office at successive biennial elections. Centennial Water & Sanitation District will hold its next director election on May 6, 2025. Two at-large seats will be up for election. Registered voters who live in or own property in the district boundary may vote in the election.

BOARD MEMBER	TERM EXPIRES
Tammy Essmeier, Chair	May 2025
Terry Nolan, Vice Chair	May 2027
SJ Light, Treasurer	May 2027
Frank Johns, Director	May 2027
Frank McNulty, Director	May 2025



From left to right: Director McNulty, Director Light, Director Essmeier, Director Nolan, & Director Johns

ORGANIZATIONAL CHART



DISTRICT DEPARTMENTS

Water Operations

Water Operations include funding for a staff of **31.50** Full-Time Equivalents (FTE's).

- Maintenance of equipment associated with storage reservoirs including erosion control.
- Costs associated with wells and ground water supply including electrical cost of pumping and operation of maintenance of the wells and appurtenant structures.
- Provides for the treatment of water from well sources to lower mineral content through filtration prior to use in the potable water system.
- Provides for the operations and maintenance associated with the pumping of water from the reservoirs to the Water Treatment Plant as well as the pumping of treated water to the distribution system.
- Provides for treatment of surface water sources at the Joseph Blake Water Treatment Plant to comply with the Safe Drinking Water Act.
- Provides for maintenance of the Joseph Blake Water Treatment Plant facilities used in the treatment of surface water supplies.
- Provides for the operations and maintenance associated with the transport of water through the distribution system including record keeping, equipment, emergency repairs, and preventative maintenance.

Wastewater Operations

Wastewater Operations include funding for a staff of **24.50** FTE's.

- Provides for the operation and maintenance of the District's wastewater collection system including normal inspection and cleaning and emergency repairs to sewage transport facilities.
- Provides for treatment of the wastewater generated by the community to comply with the state and federal regulations prior to discharge to the South Platte River.
- Provides preventative and major maintenance associated with the Marcy Gulch Wastewater Treatment facility necessary to preserve the capital equipment and facilities as well as to prevent any facilities down time.
- Provides for the operation and maintenance of the Willow Creek and Big Dry Sewage Lift Station facilities which are necessary to transport sewage from low lying areas to the main sewage collector system for ultimate transport to the Marcy Gulch facility for treatment.

Technical Management

Technical Management includes funding for a staff of **22.00** FTE's.

- Provides for the legal and engineering costs necessary to protect the District's water portfolio. Includes the cost of water master planning and other non-capital development costs.
- Provides central direction, coordination and supervision of the District's water and wastewater facilities including: wastewater collection, wastewater treatment, sludge management, water treatment, and distribution.
- Performs laboratory testing to assure compliance with the Safe Drinking Water Act and the Discharge Permits for the water and wastewater systems; quality control evaluation, and process

control testing; assists operational staff in the proper operation of the treatment facilities; completes special projects to evaluate the effectiveness and efficiency of operating practices.

- Administers and facilitates the construction and operation of the facilities belonging to Centennial.
- Provides for operational costs and maintenance of the vehicles associated with District operation and maintenance functions.

General Management; Finance; Administration

- General Management includes funding for a staff of **18.90** FTE's.
- Costs associated with the Board of Directors which serves as the District's legislative body; adopts policies and resolutions that govern the direction and priorities of the community.
- The expenses related to the office of the manager which implements policies set by the Board of Directors; manages the overall operation of the District and advises the Board of Directors of administrative matters and policy issues.
- Provides centralized recruitment, selection, and organizational development services to all departments; maintains personnel files and classifications and compensation system for District employees; coordinates the District's employee benefit programs.
- Provides the Highlands Ranch Metro District (HRMD) as well as Centennial centralized accounting; financial reporting and purchasing; provides periodic budget comparisons; coordinates vendor payments and payroll; responsible for coordinating independent audits. Provides investment portfolio and debt management; prepares the annual budget and supplemental appropriations; provides research and analysis of various programs; prepares long range financial forecast; is responsible for the risk management activities of the District.
- Provides data processing and other administrative computer system needs of the District.
- Provides customer billing and response to customer inquiries.
- Provides centralized purchasing of office supplies; coordinates the management and development of District information and communications systems.
- Provides for maintenance of the District's Administration Building.
- Provides the insurance necessary for risk management.

2024 STRATEGIC PLAN



STRATEGIC FOCUS AREAS

Each of our five strategic areas of focus are described below and include highlights of activities the district is continuing this year to advance strategic goals.

1 Water Supply Sustainability

Water resources are the cornerstone of our future. Without sufficient qualities of reliable water for current and future needs, we can't accomplish our mission.

- **Integrated Water Resources Planning** – Our water resources staff continually evaluates the availability of water in the district's portfolio and compares that to anticipated needs. We look for opportunities to strengthen our existing portfolio, acquire additional resources and anticipate potential changes.
- **Water Resources Projects** – The successful completion of the Chatfield Reservoir Reallocation Project allowed us to store an unprecedented quantity (almost 7,000-acre feet) of additional water in 2023. We hope to continue that success with innovative projects that will protect current resources, improve efficiency, and acquire additional resources when possible.

2 Human Health and Environmental Stewardship

The district's primary requirements are to treat and deliver high quality water in sufficient quantity to meet our customers' needs, and to collect and treat wastewater to a standard that preserves and protects our natural environment.

- **Joe Blake Water Treatment Plant Improvements** – Our 2018 water master plan recommended several projects to replace aging infrastructure and increase treatment capacity for renewable surface water. Phase 1A, currently in progress, will improve pre-treatment and move the plant from a capacity of 26 million gallons per day (mgd) to 30 mgd. In the future, Phases 1B (starting in 2024), 2 (starting in 2026), and 3 (starting in 2028) will improve reliability, increase chemical storage capacity, and eventually increase treatment capacity to 40 mgd.
- **Marcy Gulch Wastewater Treatment Plant Improvements** – Our 2016 wastewater master plan recommended several projects to replace aging infrastructure and improve the environmental quality of our wastewater effluent. Our current project, which started in 2019 and will conclude in 2024, will allow us to process safely and efficiently 8 mgd and meet stringent regulatory requirements for treatment. We anticipate future phases will be necessary to further improve the treatment process to protect water resources to an even higher level.
- **Collection and Distribution System Improvements** – Master planning to improve the performance and maintain the reliability of our collection and distribution system will get underway in 2024. We will begin by creating a wastewater collection master plan that will guide future system improvements and continue our pipeline replacement projects.

3 Financial Stability

We have a responsibility to our customers, today and into the future, to bring in sufficient revenue to meet our community's needs - and to be trusted agents in using those resources efficiently, transparently, and responsibly.

- **Capital Improvement Planning** – As capital projects have a substantial impact on overall quality of our services but also the financial resources of the district, our capital improvement plan looks at major requirements for the next 10 years and prioritizes projects to maintain operations, regulatory requirements, and safety.
 - **Customer Billing Software** – We plan to implement a new and improved customer billing software system in 2024. This will be the first major upgrade to this system in a decade and will provide a more interactive and informative experience for our customers. We hope to use the new system to improve communication and education for all our stakeholders.
-

4 Employee Engagement

Our team is the key to our success. We focus on recruiting the right people, training them to perform their jobs successfully, and creating a positive culture that shows them we're committed to them, so they commit to us.

- **Employee Engagement Committee** – In 2023, we improved and empowered our Employee Engagement Committee to facilitate communication and provide a venue for constructive suggestions and dialogue. The committee is composed of front-line staff who understand the challenges of day-to-day work and can communicate those to senior management with the goal of improving the culture of the entire organization.
 - **Continuous Learning** – We are committed to challenging our staff and providing them with opportunities to grow as professionals, leaders, and people. Staff have the resources and opportunities to learn and advance through their careers by achieving a variety of qualifications that facilitate their career growth. Staff can also attend regional conferences on subjects including operations, regulations, community outreach, water conservation and water utility best practices, among many others.
-

5 Stakeholder Partnership

We are stronger when we create trusting relationships with our customers and other stakeholders. Centennial Water strives to be a leader in the communities we serve and in Colorado's larger water community.

- **Communications Planning** – We started to focus more on communications with our first full time position in 2021. As we grow our capabilities, we have had success in increased outreach – through an improved website, stories in local news, enhanced communication through email and social media, and participation at an increasing number of community events.
- **Citizens Engagement Committee** – Our second class of volunteers to serve on our Citizens Engagement Committee was selected in 2023. We envision this committee as a group of interested and engaged citizens who can learn more about our services, provide feedback from a community perspective, and be ambassadors to our larger customer base.

- **Regional Partnerships** – Our staff and board serve on a wide variety of water industry groups and engage on topics as varied as water supply, best practices in operations, community outreach, water conservation and shaping the regulatory environment.

STRATEGIC INITIATIVES

While the proposed budget is published every October for public review and comment, our board and staff engage in a year-long process to ensure we are meeting the needs of our customers in a responsible way. This process entails our ongoing governance cycle.

At the end of each year, every employee starts a process of self-evaluation and goal setting. This process results in an end of year evaluation and sets the stage for success in the next year. The end of year is also the period in which we review accomplishments and areas for improvement in the coming year. Regarding the annual budget process, we can finalize our review of revenues and expenditures to ensure we have spent responsibly, accomplished goals, and understand the environment as we move into the upcoming year.

At the beginning of each year, managers plan out projects for the next year and set goals. Projects progress and work continues, but managers check in monthly on finances as each month's books are completed. This continual progress checking allows management to balance requirements and resources to make sure the mission is being accomplished.

Each July, managers do a comprehensive check on the midyear budget and, through a process of budget revision, reassess requirements and resources for the rest of the year. During the revision process, managers can move money from accounts that are underspent into those that might require additional resources, but unless major unforeseen circumstances have occurred, their direction is to work within the means provided in the annual budget. In many years, expenditures are in line with budgets – and in some years revenues exceed expenditures and the district can save resources to be used on emergency expenses, or to fund revenue shortfalls, without changes to rates in future years.

In August, managers look at both operational requirements for the next year and capital requirements for the next 10-20 years. This is the process of departmental budget preparation. When the department proposed budgets are complete, the finance department compiles them all for a comprehensive look at next year's operational requirements and future capital needs. While the process is collaborative throughout, the finance team is charged with comparing requirements and resources and prioritizing projects when not all requirements are achievable. The finance department compiles a proposed budget for the following year, informs the board, and publishes it for public review and comment by Oct. 15.

Over the following two months, staff and the board consider public comments and refine calculations to finalize the next year's rates and budget. These are approved in mid-December and go into effect on January 1st of the following year.

In summary, District staff and management proceed annually with a process that is detailed, focused, and transparent. Our goal is to continually implement a process that guides us in

providing excellent service at reasonable rates, year after year. Oversight is provided by our board and the public throughout. The result is a financially strong district that accomplishes its vision and mission in line with its core values. We hope and trust that our customers are happy with the results.



FINANCIAL ENTERPRISE



FINANCIAL ENTERPRISE: BUDGET BY FUND

An Enterprise Fund accounts for the acquisition and operations of Government facilities and services that are primarily supported by user charges. Although Centennial reports as an Enterprise Fund for financial reporting purposes, the Board has found it effective to utilize budgeting practices that resemble general governmental fund accounting to communicate its budgetary practices. As a result, Centennial's budgeted revenues and expenditures are broken down into distinct "funds" of a recurring nature.

A fund is a self-balancing, segregated sum of money (or other resource) for the purpose of carrying out a specific activity or to obtain a specific objective. The fund is managed by identifiable objectives, regulations, and/or restrictions. Centennial's funds of a recurring nature used for budgetary practices are:

- **OPERATIONS FUND** - the day to day, ongoing operating costs of the District necessary to deliver water and wastewater services. This Fund is developed on a full accrual basis, i.e. if measurable, expenses are recognized in the period incurred.
- **MAJOR REPAIR AND CAPITAL PROJECTS FUND** - This fund balance is available for the major repair and replacement of District owned process equipment, vehicles, well re-drills, smaller renovation of facilities and the purchase of miscellaneous new equipment. It also funds the financial resources needed for the acquisition or construction of major capital improvement projects or facilities identified in the District's long-range capital plan found on Pages 52-69.

The 2024 need of \$5.8 million to be transferred from the Operating Fund is generated from the base rate income and includes components of both the water and wastewater rates. This Fund is reported on a full accrual basis; i.e. if measurable, expenses are recognized in the period incurred.

- **WATER ACQUISITION FUND** - funded by a portion of rates specifically identified for water acquisition and, to the extent available, an additional transfer from the financial assurance fund (see below). For 2024, the water acquisition portion of the rates increased to \$0.90 per thousand gallons. The fund balance is available for:
 - acquisition of surface water
 - operating costs related to the WISE and Chatfield Reallocation Projects
 - construction of facilities to capture, store and deliver surface water.
 - protection of stream and reservoir quality and various water conservation incentives
 - The cost of maintaining inventory levels in the reservoirs and using Aquifer Storage and Recovery (ASR) for underground storage

This Fund is reported on a full accrual basis; i.e. if measurable, expenses are recognized in the period incurred.

- **DEBT SERVICE FUND** - is used to account for the accumulation of resources for, and the payment of general long-term obligation principal, interest and other costs related to the management and retirement of debt. This fund is reported on a cash basis, (i.e., expenditures are recognized when the outflow of cash occurs).

- **FINANCIAL ASSURANCE FUND** – this Fund adjusts annually based upon the available resources net of any fund transfers to the above Funds. Examples of resource accumulation that impacts the adjustment includes 1) the rate income from higher water tiers which is not accounted for in the annual calculation of rates; and 2) higher or lower than the anticipated net investment income used to calculate rates. Use of the Financial Assurance fund allows the District to avoid fluctuation of rates due to volatile economic conditions or significant reductions in demand.

The collected rate income is deposited first into the Operations Fund. After meeting the targeted ending balances in the Operations and Debt Service Funds, the outstanding rate income is transferred to the remaining Funds.

OPERATING REVENUES AND OTHER RECEIPTS

Operating revenues are comprised of income received from:

- Billing as a wholesaler to Service Districts for water and wastewater services which include the Highlands Ranch Metro District (HRMD) and the Mirabelle Metropolitan District (MMD) under a “total service” contract. The District also serves Northern Douglas County (NDC) who collects from their customers based on a water budget structure similar to the total service contracts.
- The sale and installation of meters for new customers. The District acquires all meters and sells them at cost to HRMD and MMD. In addition, District staff install all meters for services located within HRMD and MMD and charges an installation fee for providing this service. NDC is responsible for its own sale and installation of meters.
- Other contract services are billed to Castle Pines North Metro District and Roxborough Water and Sanitation District.

Base water rates vary by customer type. The proposed rate structure also reflects the additional impact that irrigation use has had on the operation of the system. A detailed rate sheet can be found on Page 32.

- The rate model has calculated base rates of \$4.43 per thousand gallons for indoor usage and \$4.90 per thousand gallons for outdoor usage.
- Single family residential usage, because it combines indoor and outdoor usage through as single meter, has a blended rate of \$4.79 per 1,000 gallons for usage up to 100% of their water budget.
- Indoor commercial and multi-family residential usage is all indoor usage. The indoor base rate of \$4.43 per 1,000 gallons will be applied to usage up to 100% of their water budget.
- Irrigation customers’ usage is solely for irrigation so the outdoor base rate of \$4.90 per 1,000 gallons will be applied to usage up to 100% of their water budget.

The service agreement between the District and NDC allows for a rate up to 200% of the HRMD rate. The 2023 rates for NDC include a surcharge of \$1.00 per 1,000 gallons which results in rates less than the maximum 200%. This surcharge is designed to partially offset the increased cost for the acquisition of water from the WISE project, the need for which is largely attributable to providing service outside of the HRMD service area. A summary of NDC rates can be found on page 33.

For both Service Districts, the base water rates are charged to each individual customer's unique "Water Budget" which is calculated based on the characteristics of the customer's property. Usage above the budgeted amount results in increases to the three-tiered rates. The purpose of this innovative rate structure is to encourage water conservation through economic incentives to customers. A summary of tiered rates can be found on page 32.

The Water Service Availability Charge, which is assessed against all customers based on meter size, will be sufficient to meet the current annual cost of water related debt service, cost of providing the periodic billing services, and the cost of meter replacement. More information on the Service Availability Charge can be found on page 31.

For residential wastewater service, the rates are annually adjusted based on an individual homes' average monthly wintertime water consumption for two months as a proxy for actual sewer flows during the entire year. The residential wastewater charges require a minimum of \$43.48 per bimonthly billing which includes the first 3,000 gallons. The actual bi-monthly rate will be determined for each individual household based on its wintertime consumption multiplied by \$4.52 (which is also the nonresidential rate) for usage greater than 3,000 gallons plus the minimum amount of \$43.48.

CONTRIBUTED CAPITAL

Contributed capital represents payments by the Service Districts to Centennial for the purpose of reserving capacity within the Centennial system. These payments are of three varieties:

BASE CAPACITY FEE

The Base Capacity Fee for HRMD is calculated annually for new development within HRMD's boundaries as of October 1 and is payable by HRMD on April 1 of the following year. The HRMD fee, which has remained unchanged since January 1st, 2000, is:

- ✓ \$5,960 per single family residential dwelling unit
- ✓ \$3,780 per multi-family residential dwelling unit
- ✓ \$9,650 per ¾" nonresidential equivalent tap

The capacity fee represents the amount necessary to recover the estimated cost of all the initial infrastructure and facilities (including engineering and construction costs but **not** financing costs) to be built by Centennial. The Base Capacity Fee is collected based upon the zoning of new land brought into the HRMD adjusted for rezoning of prior inclusions, actual plat or re-plat of land, and changes in the amount of calculated capacity fee.

The Base Capacity Fee for MMD, by contract, includes a surcharge for necessary infrastructure to provide service solely to Mirabelle.

The Base Capacity Fee for NDC has, by contract, additional surcharges added to the above Base Capacity Fees and are payable as service is requested from Centennial. In addition to the adjusted Base Capacity Fee, option payments are required to reimburse Centennial for past carrying cost to preserve the reservation.

WATER ACQUISITION DEVELOPMENT FEE

Collected from new users in the Service Districts at the time the end user is placed in service. This fee is designed to generate revenue towards the cost of developing additional water resources to ensure

economically beneficial supplies in the future. The budgeted fee will remain unchanged in 2024 at \$1,480 per ¾" equivalent. Proceeds from this fee are deposited to the Water Acquisition Fund.

INFRASTRUCTURE IMPROVEMENT FEE (NEW FOR 2024)

This fee is collected from users in the Service Districts at a rate of \$7.50 per month. As the District's water and wastewater infrastructure ages and new federal and state regulations are put into place around water treatment, dedicated funding is needed to ensure continuity of operations continues and the infrastructure is replaced or renovated in a timely manner in compliance with regulations. Proceeds from this fee are deposited to the Capital Projects and Debt Service Funds.

CHANNEL STABILIZATION SURCHARGE

Collected from new users only within HRMD, this surcharge is collected at the time the end user is placed in service. This fee is designed to generate revenue to cover \$4.2 million of funding for various channel stabilization projects in Highlands Ranch, primarily in the Marcy Gulch basin, that Centennial has committed to protect Centennial's water storage in McLellan Reservoir from the effects of soil erosion and stormwater contamination and to protect Centennial's pipeline infrastructure from erosion induced damage. The budgeted fee is \$250, unchanged in 2024. Proceeds from this fee are deposited to the Water Acquisition Fund.

OTHER REVENUES NOT DIRECTLY RELATED TO OPERATIONS

Other operating revenues not directly related to the rate-based charges include:

- Proceeds from an intergovernmental agreement with HRMD:
 - Finance and Administration are employees of Centennial and therefore 50% of their salaries and benefits are reimbursed by HRMD.
 - **Note:** certain employees in Public Works and Human Resources are shared HRMD employees and, pursuant to the agreement, are expensed to the District.
- Rental of administrative office space and computer equipment to HRMD.
- Short term water leases to third parties.
- Lab service charges from other water and sanitation districts for testing done by the District lab.

NET INVESTMENT INCOME

The District invests funds in excess of current requirements according to an investment policy approved by the Board of Directors. The projected yield for return on investments remains unchanged at 0.25%.

EXPENDITURES

OPERATING EXPENSES

The Operating Fund budget accounts for the operation, maintenance, and general management activities of the District.

WATER LEASES

Provides for the annual purchase of surface water pursuant to various agreements for treatment at the Joseph Blake Water Treatment Plant.

MISCELLANEOUS CAPITAL/CAPITAL LEASES

Purchases of miscellaneous capital items are typically done through one-time purchases. Depending on market conditions at the time, certain miscellaneous capital items (primarily vehicles) may be financed through lease/purchase agreements. The District has no current lease/purchase agreements covering real property.

DEBT SERVICE

Capital improvements have been funded, based on required timing of improvements and bond market financing rates, from a combination of:

- Cash payments available from Reserved Capacity payments
- Tax-exempt revenue obligation debt issued.

In 2015 the Board authorized additional debt to fund the Chatfield Reallocation Project. The Colorado Water Conservation Board (“CWCB”) approved three loan contracts with the District in the maximum amount of \$44,000,000. The loans were like construction loans and proceeds were disbursed to match the phased funding of the project. During the project various amendments were made to the loans to provide additional funding. All three loan contracts closed on October 15, 2015. Based on revised cost estimates received in October 2017, the District increased the loan amount in 2018 by \$9.2 million. The District used a total of \$52,952,375 in their loan capacity.

The District issued Revenue Bonds in January 2019 to fund improvements at the wastewater treatment plant. The amount of the issuance was \$75,000,000.

Furthermore, the District plans to issue Revenue Bonds in January of 2024. This debt issuance will allow for the Phase 1B upgrades and renovations at the Joseph Blake Water Treatment Plant. The project includes improvements to the pretreatment process that will increase process capacities and meet the Colorado Department of Public Health and Environment (CDPHE) design criteria requirements. Specifically, 1B improvements include:

- Chemical Building- Redesign and replacement of chemical building and equipment
- Renovated Access Corridor- Milling, paving, and patching of roadway access
- Lagoon- Replace the pond lining
- Forebay- Sludge removal, vegetation removal, and erosion control
- Yard Pipe- Flush/clean piping materials, liner replacement, etc.
- Electrical- Wiring and upgrades at new/renovated infrastructure

The current estimated cost of the improvements is approximately \$60 million, which corresponds to the amount of the proposed 2024 debt issuance.

BUDGET PROCESS-FINANCIAL POILICES



BUDGET PROCESS

Although Centennial is an enterprise for financial reporting purposes, the Board has found it effective to communicate its budgetary practices by utilizing the more traditional governmental fund accounting. The current process is as follows:



ANNUAL OPERATING EXPENDITURES

Some key assumptions in the 2024 budget include:

- an average increase in wages of 6.0%
- a 5.43% increase in health insurance premiums with no changes in benefits
- a 9.0% increase in the estimated cost of surface water leases

INFRASTRUCTURE / EQUIPMENT NEEDS

The District has a ten-year capital improvement plan to address aging infrastructure and improve efficiency. Several projects are identified to be funded by cash on hand including significant improvements at the water treatment plant. More information on the capital improvement plan is located on pages 52-69.

FINANCIAL POLICIES

The Board of Directors has established financial policies for fund balances and transfers, rate making, investments, purchasing, and compensation.

BUDGET PROCEDURES AND BALANCING

The District's budget procedures shall comply with Local Government Budget Law of Colorado as outlined in Colorado Revised Statutes (C.R.S.) Title 29 Article 1 Part 1 Budget Services Part 1, for the preparation, consideration, adoption execution and audit of the Centennial Water and Sanitation District's Annual Budget.

Balanced Budget:

- The budget shall be balanced by fund.
- The budget will be considered balanced if:
 - Estimated revenues and resources for each fund will equal or exceed recommended appropriations.
 - Fund balances meet or exceed the targeted ending fund balances established by the Board.
- The budget shall disclose whether the budget is balanced. If the budget is not balanced, the budget document shall disclose the reasons for not balancing the budget.

FUND BALANCES AND TRANSFERS

The District has formal targeted ending fund balances for the Operating Fund and the Debt Service Fund:

- The ending fund balance for the Operating Fund will be 6 months of working capital.
- The ending fund balance for the Debt Service Fund will be equal to next year's debt service payment (principal and interest).

Available funds more than the above targeted ending fund balances will be transferred in the following priority:

- to the Major Repair Fund consistent with the budget and rate allocations.
- remaining funds will be transferred to the Financial Assurance Fund.
 - The Financial Assurance Fund is available for the following potential Board directed transfers:
 - to stabilize rates as necessary during periods of revenue fluctuation.
 - ensure the Debt Service Fund targeted fund balance is properly maintained.
 - use by the Reserve Fund for major repairs above and beyond the balances maintained in the Reserve Fund (Financial Assurance Fund).
 - and the acquisition of water from the Water Acquisition Fund.

RATE AND FEE POLICY

The Board has identified the following items to be addressed when establishing rates and fees:

- The Water Service Availability Charge, which is assessed against all customers based on meter size, will be sufficient to meet the current annual cost of water related debt service, cost of providing the periodic billing services, the cost of meter replacement, and a portion of the annual contribution to fund the Major Repair Fund.
- The Wastewater Service Availability Charge which is assessed against all customers based on meter size, will be sufficient to meet the annual cost of wastewater related debt service and a portion of funding the Major Repair Fund.
- The water and wastewater consumption rates are designed to cover the cost of the annual operations. Two-year budget projections are prepared to stabilize the rate requirements and avoid dramatic single year increases whenever possible.
- The Infrastructure Improvement Fee, which is assigned to all customers and is designed to ensure that the future infrastructure needs to provide the community with clean and safe drinking water are met.
- Capacity fees are designed to recover the cost of capital as defined by the District's Facility Plan.

INVESTMENT POLICY

Colorado Revised Statutes specify investment instruments meeting defined risk criteria in which units of local government may invest. The District has adopted an Investment Policy that is more restrictive than the State Statutes and is limited to:

1. U.S. Treasury Obligations: Treasury Bills, Treasury Notes, and Treasury Bonds with a final maturity not exceeding five years from the date of purchase and U.S. Treasury Strips with maturities not exceeding five years from the date of purchase.
2. Federal Instrumentality Securities: Debentures, discount notes, and callable securities with a final maturity not exceeding five years from the date of purchase issued by the following: Federal National Mortgage Association (FNMA), Federal Farm Credit Bank (FFCB), Federal Home Loan Bank (FHLB), Federal Home Loan Mortgage Corporation (FHLMC), and Student Loan Marketing Association (SLMA).
3. Corporate Debt: debt issued by any corporation or bank organized and operating within the United States with a maturity not exceeding three years from the date of trade settlement. The debt must be rated at least AA- or the equivalent at the time of purchase by at least two NRSROs, and rated not less by any NRSRO that rates it. The District shall limit investments in Corporate Debt to no more than 25 percent of the total portfolio and 5 percent per issuer.
4. Repurchase Agreements, executed subject to an approved Master Purchase Agreement, with a termination date of 90 days or less collateralized by U.S. Treasury Securities listed above with maturities not exceeding ten years.
5. Prime Commercial Paper with an original maturity of 180 days or less which is rated at least A-1 by Standard & Poor's or P-1 by Moody's at the time of purchase by each service which rates the commercial paper.

6. Eligible Bankers Acceptances with original maturities not exceeding 180 days, issued on domestic banks whose senior long-term debt is like 4 above; have a combined capital and surplus of at least \$250,000,000; and have deposits insured by the FDIC.
7. Local Government Investment Pools authorized under CRS 24-75-701 and 702.
8. Money Market Mutual funds which have a rating of AAA by Standard and Poor's or AAA by Moody's.

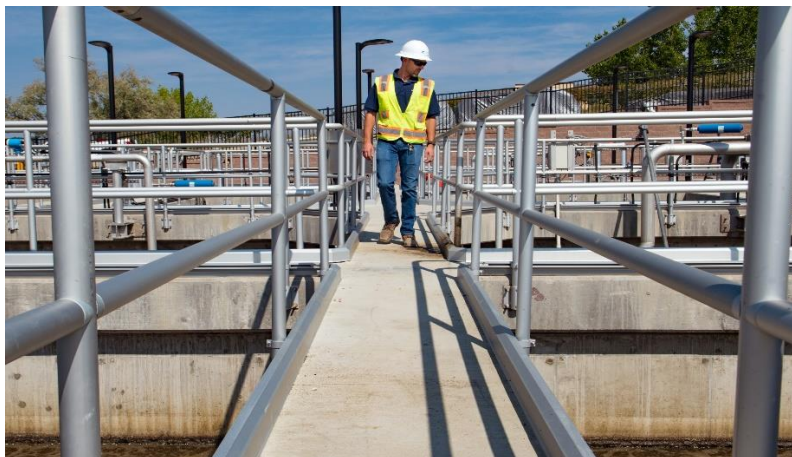
PURCHASING GUIDELINES

Purchasing Guidelines are intended to ensure that purchases are made in accordance with good business practices while streamlining the amount of paperwork wherever possible. The Purchasing Guidelines were first implemented in the early 1980's and were most recently revised on July 31st, 2023. The Purchasing Guidelines set the structure for delegated authority, levels for obtaining bids, and allowable purchases. In all circumstances, approvals cannot take place unless sufficient funds have been appropriated for the project through approval by the Board of Directors. Any adjustment to the appropriations must also be presented to the Board of Directors for approval.

COMPENSATION PLAN

The Board has established guidelines for determining wage compensation. The Board's objective is to administer salary changes fairly and consistently for all types of increases. To meet this objective the Board has provided staff with the following guidelines:

- Produce a compensation plan which is consistent with budget expectations.
- Attract and retain quality employees.
- Ensure market competitiveness by targeting the level of compensation to be at or slightly above market. This is accomplished by assigning ranges so that the surveyed midpoint falls within a range of 100% to 105% of our midpoint.
- Ensure consistency by establishing a list of organizations for benchmark position market comparison that will be used consistently over time for each category.
- Within budget constraints, treat employees fairly.
- Treat exempt and non-exempt employees comparably.



BENEFITS

The District benefit package offers benefits that are comparable with that offered by other local governments. For the budget, no changes in the benefit levels are anticipated to be required to meet the budgeted increase for benefits. The budget increase reflects the anticipated increase in premium costs.

To provide cost effective benefits the Board has authorized the following significant benefits:

1. Participation with the Highlands Ranch Metropolitan District in a defined contribution retirement plan. The plan is in lieu of participation in social security for regular employees and the contribution is the same 6.2% as would be contributed to social security.
2. A 457 plan that allows for matching of employee contributions of up to 6% by the District depending on the employee's contribution level.
3. In February 2019, a Roth IRA option became available to employees of the District to aid in retirement planning.
4. Medical, dental and vision plans offered in conjunction with the Special District Association via the Colorado Educational Benefit Trust. These plans have historically provided premium increases less than might otherwise be anticipated in the market. The medical plans that are offered are fully compliant with the Affordable Care Act.

2024 RATE SCHEDULE



2024 WATER RATE SCHEDULE

Rates are established by the Board of Directors in order to fund the cost of providing water and wastewater service to the customers of the District.

The primary function of the various rates are to support:

1. The operations cost of providing water supply, treatment and distribution.
2. The operations cost of providing wastewater collection and treatment.
3. The cost of providing periodic billing statements, maintaining meters and administrative costs.
4. Debt service payments.
5. The cost to fund a reserve for the repair and replacement of equipment.
6. Accumulation of reserves for the acquisition of additional water supplies.

The table below shows the 2024 rate schedule for water treatment, service availability, tiered rates, wastewater treatment services, and the infrastructure improvement fee compared to 2023:

METERED WATER AND TIERED RATES:

		2023				2024				
		METERED WATER CONSUMPTION (per 1,000 Gallons)				METERED WATER CONSUMPTION (per 1,000 Gallons)				
		Residential		Non-Residential		Residential		Non-Residential		
		Summer	Winter (non-irrigation)	Indoor Only	Irrigation Only	Summer	Winter (non-irrigation)	Indoor Only	Irrigation Only	
WATER BUDGET*	up to 100%	\$ 4.52	\$ 4.52	\$ 4.18	\$ 4.62	\$ 4.79	\$ 4.79	\$ 4.43	\$ 4.90	
	101% to 120%	\$ 6.08	\$ 6.08	\$ 5.66	\$ 6.20	\$ 6.44	\$ 6.44	\$ 6.00	\$ 6.57	
	121% to 140%	\$ 9.23	\$ 6.08	\$ 5.66	\$ 10.90	\$ 9.78	\$ 6.44	\$ 6.00	\$ 11.55	
	140% and over	\$ 13.97	\$ 10.06	\$ 9.85	\$ 18.50	\$ 14.81	\$ 10.66	\$ 10.44	\$ 19.61	
			Drought Rates - Stage 1**				Drought Rates - Stage 1**			
	up to 100%	\$ 4.52	N/A	N/A	\$ 4.62	\$ 4.79	N/A	N/A	\$ 4.90	
	101% to 120%	\$ 7.60	N/A	N/A	\$ 7.75	\$ 8.06	N/A	N/A	\$ 8.22	
	121% to 140%	\$ 11.54	N/A	N/A	\$ 13.63	\$ 12.23	N/A	N/A	\$ 14.44	
	140% and over	\$ 13.97	N/A	N/A	\$ 13.97	\$ 18.51	N/A	N/A	\$ 19.61	
			Drought Rates - Stage 2**				Drought Rates - Stage 2**			
	up to 100%	\$ 4.52	N/A	N/A	\$ 4.62	\$ 4.79	N/A	N/A	\$ 4.90	
	101% to 120%	\$ 9.12	N/A	N/A	\$ 9.30	\$ 9.67	N/A	N/A	\$ 9.86	
	121% to 140%	\$ 13.85	N/A	N/A	\$ 16.35	\$ 14.68	N/A	N/A	\$ 17.33	
	140% and over	\$ 13.97	N/A	N/A	\$ 18.50	\$ 18.51	N/A	N/A	\$ 19.61	

SERVICE AVAILABILITY FEE:

2023		2024	
WATER SERVICE AVAILABILITY FEE		WATER SERVICE AVAILABILITY FEE	
Residential - Single Family (bi-monthly)	\$ 36.50	Residential - Single Family (bi-monthly)	\$ 36.50
Residential - Multi Family (monthly)	\$ 11.32	Residential - Multi Family (monthly)	\$ 11.32
Nonresidential per 3/4" equivalent (monthly)	\$ 18.25	Nonresidential per 3/4" equivalent (monthly)	\$ 18.25

**CENTENNIAL WATER & SANITATION DISTRICT
2024 PROPOSED BUDGET**

WASTEWATER TREATMENT:

2023		2024	
WASTEWATER TREATMENT		WASTEWATER TREATMENT	
Residential - Single Family***		Residential - Single Family***	
Fixed fee (bi-monthly)	\$ 26.96	Fixed fee (bi-monthly)	\$ 29.92
Minimum charge -Fixed fee plus 3,000 gallons Use	\$ 39.08	Minimum charge -Fixed fee plus 3,000 gallons Use	\$ 43.48
Use - winter time average (per 1,000 gallons)	\$ 4.04	Use - winter time average (per 1,000 gallons)	\$ 4.52
Residential - Multi Family (per unit)***		Residential - Multi Family (per unit)***	
Fixed fee (monthly)	\$ 13.48	Fixed fee (monthly)	\$ 14.96
Minimum charge -Fixed fee plus 1,500 gallons	\$ 19.54	Minimum charge -Fixed fee plus 1,500 gallons	\$ 21.74
Use - winter time average (per 1,000 gallons)	\$ 4.04	Use - winter time average (per 1,000 gallons)	\$ 4.52
Nonresidential		Nonresidential	
Fixed fee per 3/4" equiv. tap size (monthly)	\$ 13.48	Fixed fee per 3/4" equiv. tap size (monthly)	\$ 14.96
Rate * 80% water consumed (per 1,000 gallons)	\$ 4.04	Rate * 80% water consumed (per 1,000 gallons)	\$ 4.52

*Water Budget per residential customer = 12,000 gallons bimonthly for indoor use + outdoor usage equivalent to 27" of irrigation annually on the irrigated area of the lot (irrigated area = 45% of gross lot size).

**Rates are subject to change due to, but not limited to, water supply conditions such as drought and the provision of sufficient funds for the operation of the district.

***Fixed fee plus use during wintertime average sets fee for the year

INFRASTRUCTURE IMPROVEMENT FEE:

2023		2024	
INFRASTRUCTURE IMPROVEMENT FEE		INFRASTRUCTURE IMPROVEMENT FEE	
Residential - Single Family (bi-monthly)	\$ -	Residential - Single Family (bi-monthly)	\$ 15.00
Residential - Multi Family (monthly)	\$ -	Residential - Multi Family (monthly)	\$ 7.50
Irrigation - Per Tap	\$ -	Irrigation - Per Tap	\$ 7.50
Nonresidential per 3/4" equivalent (monthly)	\$ -	Nonresidential per 3/4" equivalent (monthly)	\$ 7.50

NORTHERN DOUGLAS COUNTY WATER AND SANITATION DISTRICT:

SERVICE TYPE	2020	2021	2022	2023	2024
Water Service Availability Charge (bi-monthly)	\$ 31.72	\$ 33.50	\$ 34.82	\$ 36.50	\$ 36.50
Single Family Water Rate up to 100% of Budget per 1,000 Gallons	\$ 4.92	\$ 5.19	\$ 5.37	\$ 5.58	\$ 5.79
Indoor Commercial Water Rate up to 100% of Budget per 1,000 Gallons	\$ 4.62	\$ 4.88	\$ 5.05	\$ 5.25	\$ 5.43
Irrigation Water Rate up to 100% of Budget per 1,000 Gallons	\$ 5.01	\$ 5.29	\$ 5.47	\$ 5.69	\$ 5.90
Minimum Wastewater Charge (bi-monthly)	\$ 30.74	\$ 32.77	\$ 35.26	\$ 39.08	\$ 43.48
Wastewater per 1,000 Gallons over 3,000	\$ 3.68	\$ 3.75	\$ 3.86	\$ 4.04	\$ 4.52
Infrastructure Improvement Fee (bi-monthly)	\$ -	\$ -	\$ -	\$ -	\$ 15.00

2024 PROPOSED BUDGET



2024 BUDGET SUMMARY

ALL FUNDS:

The total 2024 budget for all funds is \$54.1 million, a decrease of approximately \$13 million attributable to Wastewater projects nearing completion in 2023 and 2024. With the proposed 2024 debt issuance tied to Phase 1B improvements, capital expenditures are expected to increase significantly in 2025. Within the total budgeted funds there is also a total budget of \$33.6 million for all operating funds, which is a 1.4 percent increase over the 2023 revised budget.

REVENUE:

To accurately project revenues in the 2024 budget, several assumptions were made. Below is a summary and detail of those key assumptions.

ABSORPTION:

The following are the absorption assumptions that impact the various revenue sources of the District:

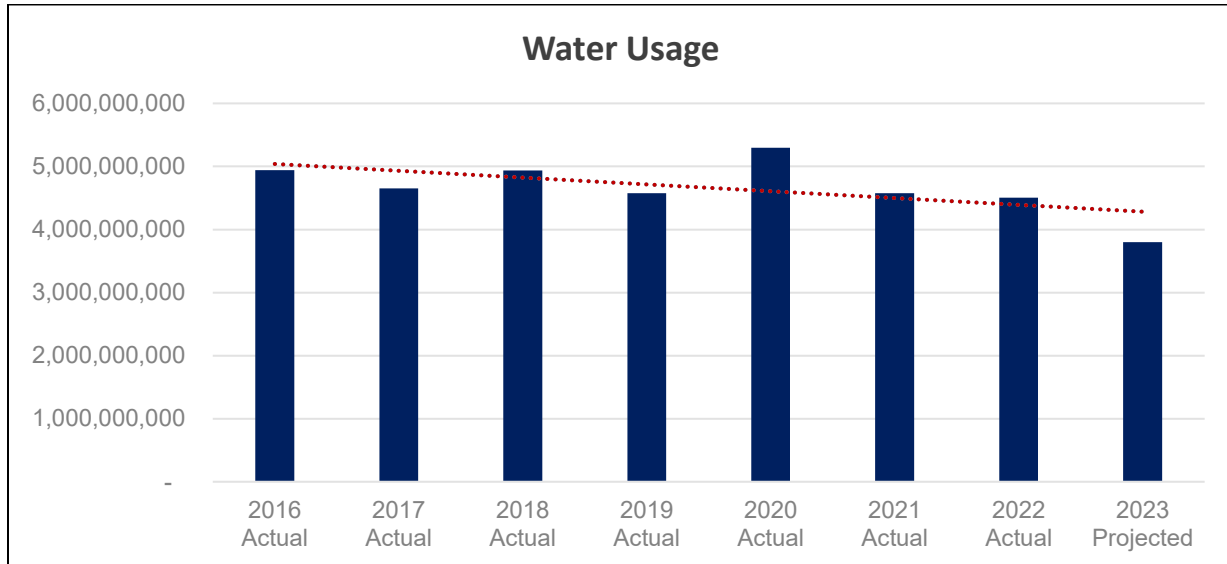
District	As of 12/31/2022	2023 Budget	2023 Projected	2024 Budget
Highlands Ranch Metro District				
Single Family	29,310	50	12	40
Multi Family	8,303	125	60	125
Commercial and Industrial 3/4" Equiv.	4,531	4	12	13
Irrigation Only 3/4" Equiv.	1,553	1	-	-
Merto Irrigation 3/4" Equiv	1,369	-	-	-
Mirabelle Metropolitan District				
Single Family	492	125	125	125
Commercial and Industrial 3/4" Equiv.	68	-	-	-
Irrigation Only 3/4" Equiv.	-	-	-	-
Merto Irrigation 3/4" Equiv	84	-	-	-
Northern Douglas County 3/4" Equiv.				
Single Family	1,564	-	-	-
Multi Family	192	-	-	-
Commercial and Industrial 3/4" Equiv. w/GW Fee	136	-	-	-
Commercial and Industrial 3/4" Equiv. w/o GW Fee	2	-	-	-
Irrigation Only w/GW Fee	93	8	-	-
Irrigation Only w/o GW Fee	9	-	-	-

INVESTMENT EARNINGS:

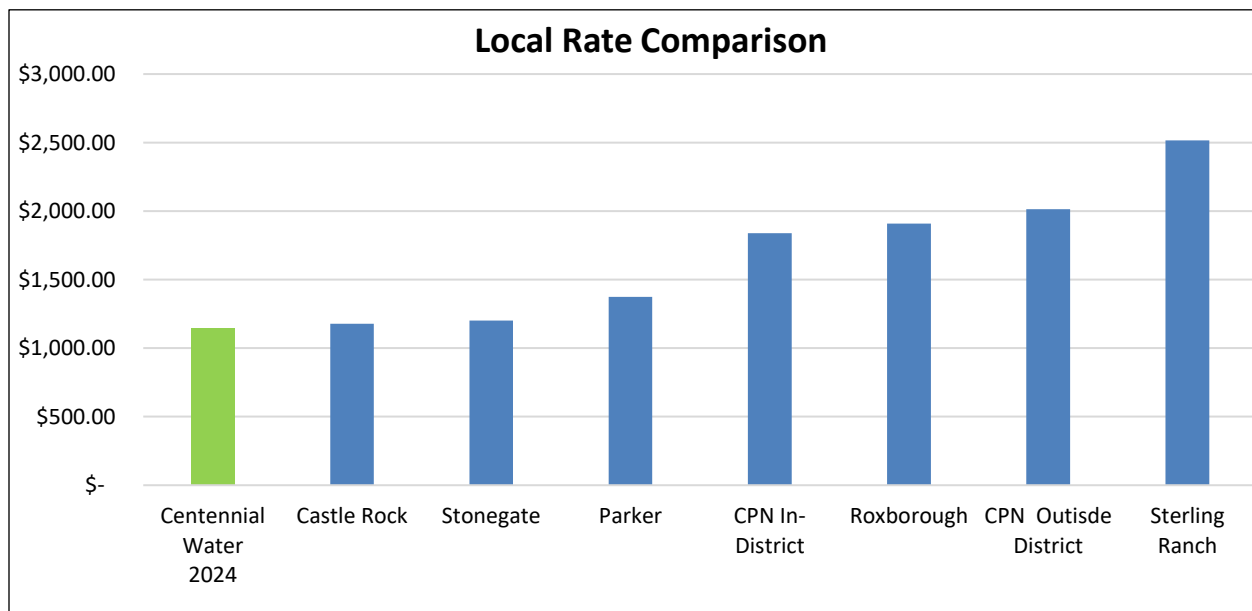
The various fund balances are reinvested pursuant to an investment policy managed by a third-party management firm. Investment earnings on accumulated cash balances in the District's treasury (net of management fees) are estimated, based on five-year averages of appropriate indices. 2024 is estimated to be 0.25%.

RATE REVENUE:

The District is almost entirely funded by rate revenue. This is a change as historically; a large source of revenue was fees tied to development. As development in Highlands Ranch is largely completed, the district has become more and more reliant on rate revenue. Furthermore, due in part to the District’s focus on water conservation via our innovative water budgets, water usage is steadily trending downward. The table below shows annual water usage from 2016-2023:



While the annual decline in usage has facilitated the need for rate increases, the District remains one of the lowest priced entities for single family homes compared to other local water entities (as shown in the table below). The District remains committed to providing the highest value for every rate dollar collected while being conscientious of the impact that rate changes have on families in the current economic environment. Furthermore, the District continues to explore other revenue sources to offset the impact on customers.



EXPENDITURES:

Operating expenditures are proposed to increase by approximately \$470 thousand overall in 2024 over the 2023 revised budget. Personnel accounts for 36% of expenditures and the following assumptions were utilized when calculating personnel expenses:

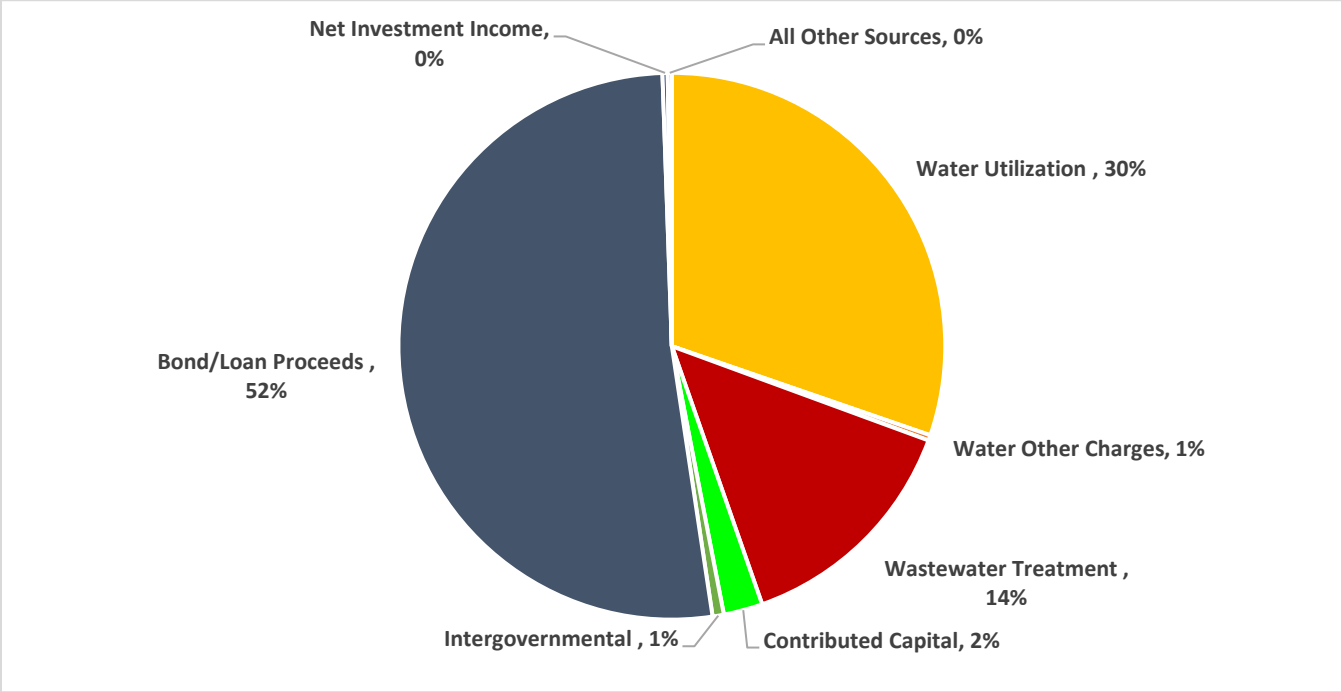
1. The 2024 compensation budget is based on a formula consistent with the results of the Wage Compensation Policy adopted by the Board. The compensation plan is under review by the Board of Directors. The budget assumes a 6.0% average wage increase.
2. The benefits program, which is reflected in the cost of payroll expenses, includes the following:
 - Health (medical/dental/vision) insurance – In 2024 the District will provide employees a choice between PPO, EPO and Kaiser plan. The budget identifies no cost sharing for the employee coverage and 25% contribution to the family portion of the monthly premiums.
 - Retirement Plan contributions – the defined contribution plan will be funded from 6.2% matching contributions from both the District and the employee. Since this plan is intended to be a replacement for social security, the plan limits the maximum contribution at the social security maximum taxable earnings level each year.
 - Employees who participate in the 457 Plan are eligible for a matching contribution up to 6%. For purposes of the budget, it is assumed that all employees that currently participate in this program will continue to do so in 2024. In 2024, the matching structure increased to 100% on the first 4.5% of employee contribution and 50% on employee contribution of 4% up to 6%.
 - The Medicare portion of FICA - is estimated to continue at 1.45% of salary for those employees who are members of the pension plan. For the temporary or part time employees not eligible for the plan, the full FICA contribution of 7.65% will be made.
 - Life/Disability insurance - Is estimated to be .14% and .52% of eligible wages respectively.
 - Unemployment taxes - it is anticipated that the unemployment taxes mandated for all governmental units will remain at .20% of wages.
 - The cost for Workers Compensation is anticipated to increase 6% based on an increase in the experience modification.

Based on the above, the 2024 payroll costs are estimated to be 31.7% of regular wages as compared to 31.4% in 2022.

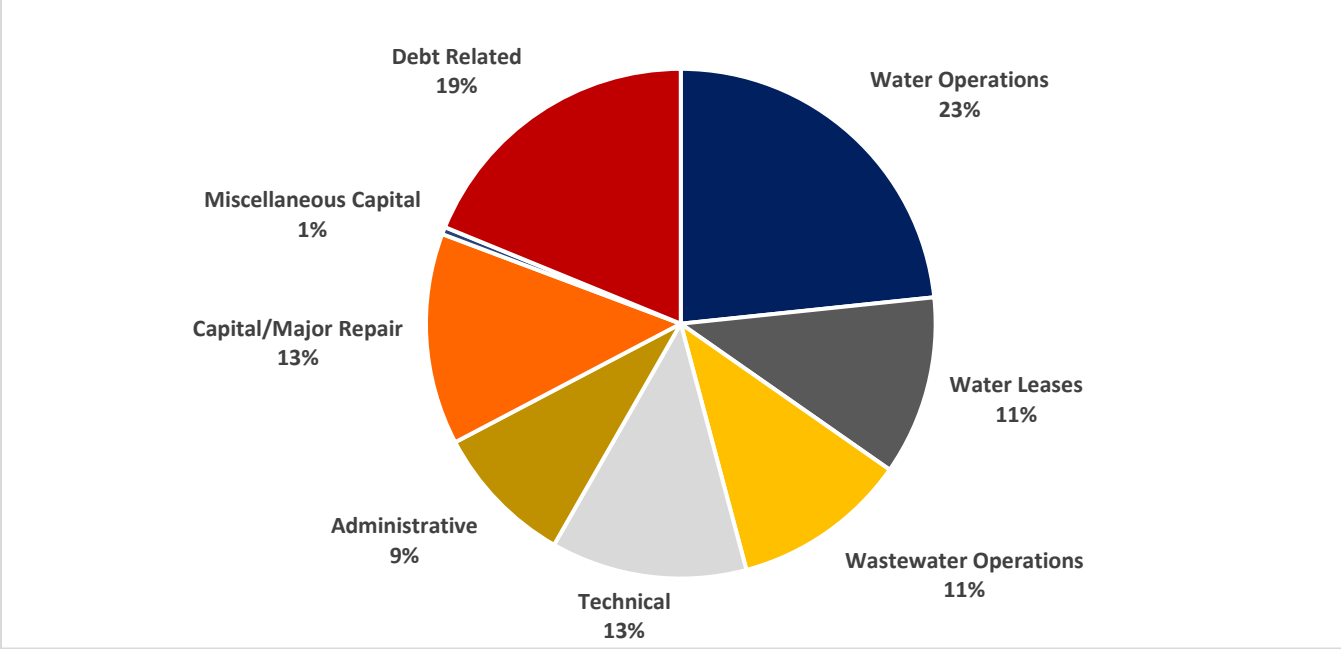
2024 SOURCES AND USES: ALL FUNDS

	2022 Actual	2023 Budget	2023 Revised	2024 Proposed Budget
SOURCES OF FUNDS				
Water Utilization	\$ 30,625,338	\$ 32,805,400	\$ 27,236,366	\$ 36,222,507
Water Other Charges	441,965	965,090	580,837	382,237
Wastewater Treatment	14,125,529	15,400,000	15,010,426	16,796,971
Contributed Capital	6,756,320	3,972,606	2,350,461	2,761,440
Intergovernmental	678,414	487,640	583,695	798,308
Bond/Loan Proceeds	-	-	-	62,000,000
Net Investment Income	(2,104,960)	99,300	371,200	365,100
All Other Sources	318,549	280,314	256,730	292,325
TOTAL FINANCIAL SOURCES	50,841,155	54,010,350	46,389,715	119,618,888
USES OF FUNDS				
Water Operations	12,234,375	12,263,980	12,392,601	12,526,152
Water Leases	3,575,869	5,099,173	6,479,266	6,097,201
Wastewater Operations	5,217,624	5,650,828	5,559,748	5,978,175
Technical	4,908,854	6,267,360	6,291,785	6,669,398
Administrative	3,367,754	3,788,368	4,209,582	4,838,855
Capital/Major Repair	27,406,617	32,710,000	19,334,175	7,200,000
Miscellaneous Capital	1,333,086	790,000	250,000	250,000
Debt Related	12,756,666	12,719,830	12,749,313	10,094,413
TOTAL FINANCIAL USES	70,800,845	79,289,539	67,266,470	53,654,194
NET FUND TRANSFERS	-	-	-	-
PROJECT RESCISSIONS	-	-	449,272	-
NET CHANGE FUND BALANCE	(19,959,690)	(25,279,189)	(20,427,483)	65,964,694
BEGINNING FUND BALANCE	125,804,471	110,868,495	105,844,781	85,417,298
ENDING FUND BALANCE	\$ 105,844,781	\$ 85,589,306	\$ 85,417,298	\$ 151,381,992

2024 SOURCES BY TYPE



2024 USES BY TYPE



FLOW OF FUNDS

The District provides two distinct types of services to its customers:

- Treatment and delivery of water
- Removal and treatment of wastewater

The District coordinates and budgets for the common activities between the two functions in order to maximize operational efficiency.

Included as operation costs are:

- The operation and maintenance of the water and wastewater treatment plants.
- The maintenance of the water distribution and transmission systems and the wastewater transmission and collection systems.
- The cost of general management and administration necessary to manage day to day operations.

Sources of funds to make the above expenditures include:

- Revenue from rate income. The rates are established by the Board of Directors and, together with investment earnings and accumulated reserves, are sufficient to meet the first three costs identified above. The rate income is collected from Highlands Ranch Metropolitan District and Northern Douglas County Water and Sanitation District who are responsible for collecting sufficient revenue from their customers to remit the required revenues.
- Investment Earnings. The District policy provides for maximum flexibility in the use of earnings from investments by transferring all investment income to the operations fund.

In addition, the District incurs:

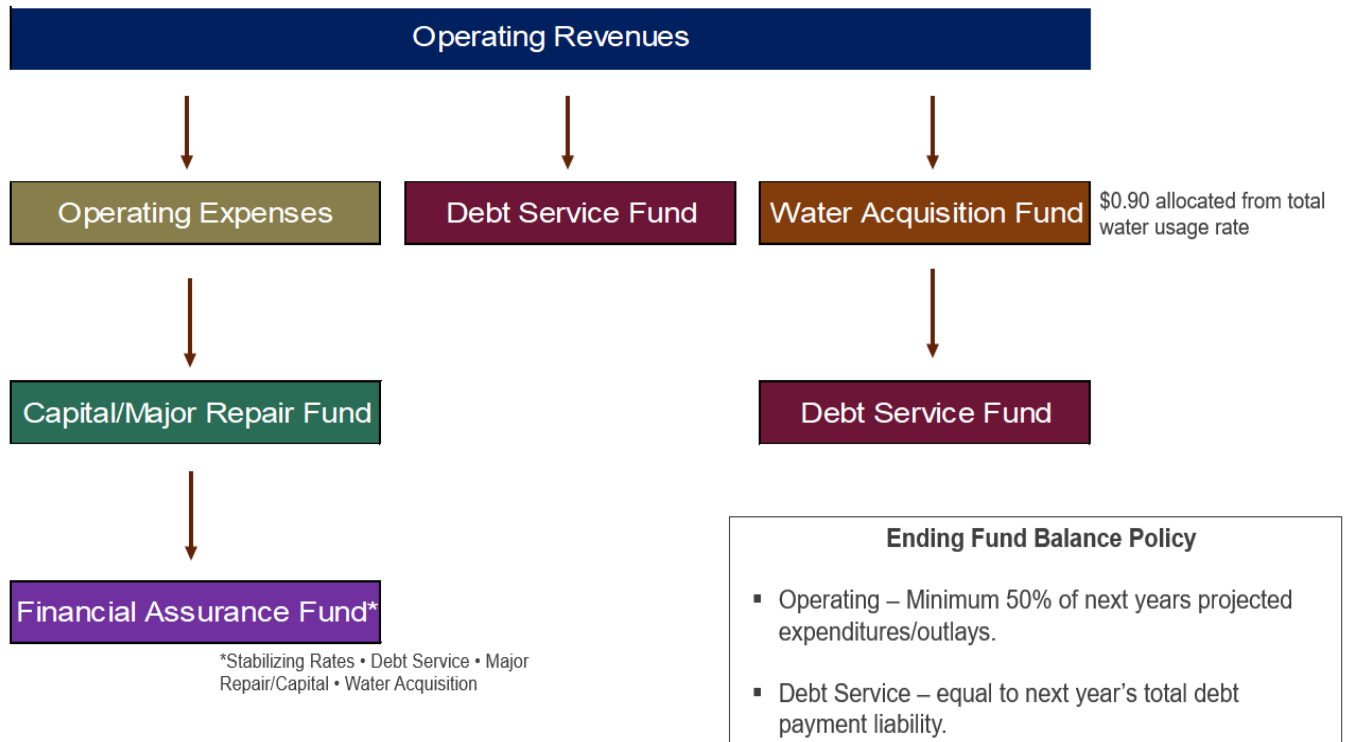
- Expense for constructing the water and wastewater systems including treatment plants and the necessary infrastructure to distribute treated water and collect wastewater.
- The interest and principal expense on the outstanding debt which was used to raise capital to pay for construction of the water and wastewater systems.

These expenditures are financed by:

- Contributed Capital
 - a. A base Reserve Capacity payment equal to the capacity fee per dwelling unit times the number of units included (or for nonresidential at a rate per acre times the number of acres). This is collected from Highlands Ranch Metropolitan District or Northern Douglas Water and Sanitation District as these Districts include new land which require additional capacity. Base Reserve Capacity payments flow to the Capital Projects Fund.
 - b. Surcharges on new connections to the system are used to fund:
 - Channel stabilization projects. Channel Stabilization payments flow to the Water Acquisition and Protection Fund.
 - Water resource development. Water Acquisition payments flow to the Water Acquisition and Protection Fund.

- Bond Proceeds. Bond proceeds are used to make the payments for the initial construction of water and wastewater system facilities.
- Revenues from the Service Availability Fee. Since 2003 the District has had a Service Availability Fee that is, among other requirements, designed to pay the interest due on the District’s outstanding debt. Although not pledged for this purpose, the Service Availability Fee is the primary source for paying debt and interest.
- Revenues from the IIF.

The chart below shows the flow of funds for the District:



OPERATIONS FUND

OPERATIONS BY OBJECT:

The Operating expense budget can also be summarized by major classification of Object of Expenditure. The type of costs charged to each Object of Expenditure include:

PERSONNEL

Expenditures directly related to the District employee's such as wages, benefits, temporary wages, training, uniforms, and overtime.

MATERIALS AND SUPPLIES

Expenditures relating to supplies purchased by the District including meters, repair parts, safety equipment, and general operating supplies.

FUEL AND CHEMICAL PRODUCTS

Purchase of fuel for the District's fleet and water treatment chemicals.

PURCHASED SERVICES

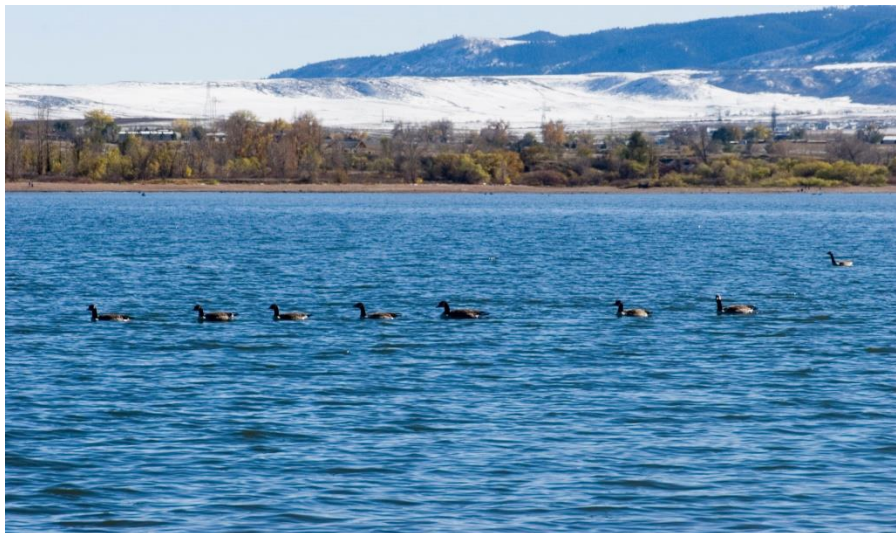
A wide variety of services acquired by the District in the normal course of business including printing and copying, memberships, equipment rental, repair services, licenses, postage, and conferences.

MISCELLANEOUS CAPITAL

Expenditures for capital assets with a value more than \$15,000 and a life expectancy of greater than two years. In general, these outlays are for nonstructural items that are used to directly assist with day-to-day operations. The anticipated expenditures for 2023 are detailed on the Miscellaneous Capital Schedule.

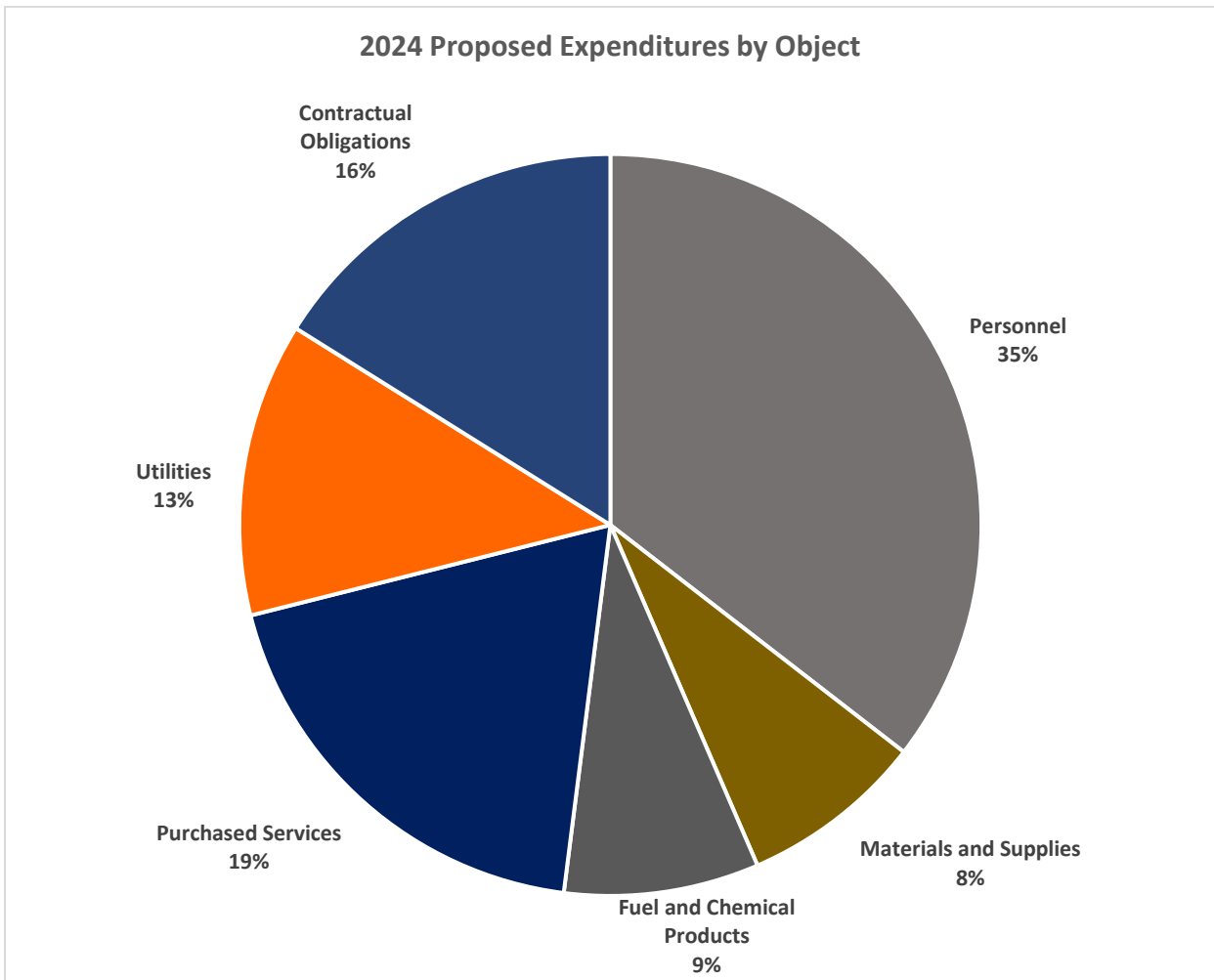
UTILITIES

Payments for electricity, water and sewer, and natural gas.



OPERATIONS FUND- EXPENDITURES BY OBJECT

	2022 Actual	2023 Budget	2023 Revised	2024 Proposed
Personnel	9,883,974	10,977,005	11,144,665	11,939,461
Materials and Supplies	2,069,569	2,789,985	2,679,275	2,701,512
Fuel and Chemical Products	4,485,649	5,894,986	5,694,875	2,858,935
Purchased Services	2,532,172	2,711,365	2,114,631	6,417,043
Utilities	3,869,917	3,817,853	3,516,198	4,314,149
Contractual Obligations	4,500,108	4,668,878	8,029,096	5,417,984
Total Operating Outlay	\$ 27,341,389	\$ 30,860,072	\$ 33,178,740	\$ 33,649,084



CENTENNIAL WATER & SANITATION DISTRICT
2024 PROPOSED BUDGET

OPERATIONS BY OBJECT:

	2022 ACTUAL	2023 BUDGET	2023 REVISED	2024 BUDGET			
				BASE BUDGET	ONE-TIME BUDGET REQUEST	ON-GOING BUDGET REQUEST	TOTAL
BOARD DIRECTED BUDGET							
111 REGULAR WAGES	\$ 6,776,267	\$ 7,495,400	\$ 7,587,000	\$ 8,117,000	\$ -	\$ 64,667	\$ 8,181,667
112 NON WAGE INCOME	24,865	-	25,140	25,300	-	-	25,300
121 OVERTIME WAGES	309,674.00	285,900	333,000	326,750	-	-	326,750
13x PAYROLL EXPENSES	2,176,344.00	2,448,950	2,446,900	2,628,685	-	21,853	2,650,538
113 TEMPORARY HELP	44,300.00	75,000	80,400	80,300	-	-	80,300
182 TRAINING & DEV	34,175.00	82,600	80,260	86,050	-	-	86,050
184 UNIFORMS	33,049.00	42,015	42,225	43,070	-	100	43,170
191 DIRECTORS FEES	1,700.00	2,400	6,600	9,600	-	-	9,600
195 ADMIN CONTRACT	483,600	544,740	543,140	536,086	-	-	536,086
TOTAL BOARD DIR. BUDGET	9,883,974	10,977,005	11,144,665	11,852,841	-	86,620	11,939,461
CONTRACTED SERVICES							
302 PAYING AGENT FEES	1,206	-	1,330	-	-	-	-
352 LEGAL	492,314	540,000	932,500	655,000	-	-	655,000
370 ELECTION	42,215	50,000	60,000	5,000	-	-	5,000
354 AUDITING	23,000	28,000	28,000	28,000	-	-	28,000
368 INSURANCE	230,345	242,000	278,000	285,000	-	-	285,000
550 WATER LEASE	3,575,870	3,808,878	6,479,266	4,194,984	-	-	4,194,984
MISC. CAPITAL	135,158	-	250,000	250,000	-	-	250,000
TOTAL CONTRACTED	4,500,108	4,668,878	8,029,096	5,417,984	-	-	5,417,984
DEPT. DIRECTED NONVAR							
219 OFFICE SUPPLIES	1,108	1,500	1,500	1,500	-	-	1,500
220 MEETING EXP.	6,670	7,650	7,950	31,420	-	-	31,420
222 EMPLOYEE RELATIONS	5,715	14,760	16,470	20,560	-	-	20,560
226 SAFETY SUPPLIES	27,041	37,075	37,075	59,075	-	-	59,075
227 JANITORIAL SUPPLIES	9,031	18,500	18,500	19,000	-	-	19,000
229 OTHER OP SUPPLIES	301,071	396,100	376,100	396,100	10,000	-	406,100
230 COMP SOFTWARE	60,980	132,500	45,780	131,050	107,820	33,284	272,154
244 REPAIR PARTS	1,581,007	2,085,650	2,079,650	1,753,750	-	-	1,753,750
245 METER REPLACE	64,148	76,250	76,250	107,953	-	-	107,953
246 TIRES, TUBES	12,798	20,000	20,000	30,000	-	-	30,000
TOTAL DIR. NONVAR	2,069,569	2,789,985	2,679,275	2,550,408	117,820	33,284	2,701,512
PURCHASED SERVICES							
301 BANK FEES	62,602	76,000	76,000	76,000	-	-	76,000
311 POSTAGE AND FREIGHT	83,954	96,100	93,600	102,100	-	-	102,100
313 VEHICLE LICENSES	99	700	700	700	-	-	700
319 COMMUNICATION	128,355	145,780	190,945	184,235	-	-	184,235
325 ADVERTISING	13,172	6,500	850	600	-	-	600
329 PRINTING	73,665	111,000	105,648	122,300	-	-	122,300
331 MEMBERSHIP DUES	68,397	90,688	93,288	90,115	-	-	90,115
335 PUBLICATIONS	810	5,000	6,800	7,750	-	-	7,750

**CENTENNIAL WATER & SANITATION DISTRICT
2024 PROPOSED BUDGET**

342 COMPUTER RENTAL	-	-	-	-	-	-	-
343 EQUIPMENT RENTAL	59,597	80,000	91,200	91,000	-	-	91,000
344 REPAIR SERVICES	1,053,816	1,594,000	1,191,000	1,501,500	-	-	1,501,500
346 CONTRACT TEMP	33,147	15,000	-	35,000	-	-	35,000
347 JANITORIAL SERVICES	59,095	65,400	65,400	65,400	-	-	65,400
348 CONTRACT MAINT	117,561	239,500	229,650	187,500	-	-	187,500
349 LANDFILL SVCS	86,235	95,100	106,700	114,280	-	-	114,280
355 PROFESSIONAL SVCS	750,324	1,088,840	1,118,440	1,197,340	-	-	1,197,340
363 LAB SERVICES	167,687	215,500	174,500	214,000	-	-	214,000
367 SLUDGE DISPOSAL	548,528	539,000	689,000	594,000	-	-	594,000
369 OTHER PURCH SVCS	1,045,495	1,277,523	1,294,499	1,403,875	80,000	205,000	1,688,875
371 AUTOMOBILE EXPENSE	1,718	5,450	4,750	3,350	-	-	3,350
372 CONFERENCES	23,458	51,905	44,905	44,905	-	-	44,905
389 ADMIN CONTRACT	107,934	96,000	117,000	96,093	-	-	96,093
TOTAL PURCHASED SVCS	4,485,649	5,894,986	5,694,875	6,132,043	80,000	205,000	6,417,043
DEPT DIRECTED VARIABLE							
271 GASOLINE/FUEL	112,692	110,975	110,975	120,000	-	-	120,000
281 WATER TREAT/CHEM.	2,419,480	2,600,390	2,003,656	2,738,935	-	-	2,738,935
TOTAL DEPT. DIR. VAR.	2,532,172	2,711,365	2,114,631	2,858,935	-	-	2,858,935
UTILITIES							
391 ELECTRIC/POWER	3,731,946	3,716,353	3,401,195	4,178,271	-	-	4,178,271
392 WATER/SEWER	30,144	35,000	35,000	35,000	-	-	35,000
394 NATURAL GAS	107,827	66,500	80,003	100,878	-	-	100,878
TOTAL UTILITIES	3,869,917	3,817,853	3,516,198	4,314,149	-	-	4,314,149
TOTAL BY OBJECT	\$ 27,341,389	\$ 30,860,072	\$ 33,178,740	\$ 33,126,360	\$ 197,820	\$ 324,904	\$ 33,649,084

OPERATIONS FUND- PROGRAMMATIC CHANGES

DISTRICT-WIDE PROGRAMMATIC CHANGES:

Total Impact Description	FTE	Cost
District-wide operations requests include new financial and billing software, additional community relations resources and FTE, renovations to the District’s office space, smart irrigation controllers, and lease tracking software.	1.0	564,886

TECHNICAL MANAGEMENT:

Impact Description	FTE	Cost
An increase to purchase smart irrigation controllers for the water efficient management of the irrigation systems.	0.0	19,480

GENERAL MANAGEMENT:

Impact Description	FTE	Cost
An increase to hire a Digital Communications Specialist who will support the district’s digital platforms, including website and social media. The individual will grow our digital presence through new video and multimedia capabilities.	1.0	86,620
An increase to facilitate the rollout of a new utility billing system will require a communications campaign to aid in the transition from our old system to new.	0.0	30,000
An increase for the procurement of a new utility billing system to provide a more modern platform for CWSD customers that includes water budget monitoring, direct communications, and multiple payment options.	0.0	103,683
An increase for the purchase of a new merchant card processor in tandem with the new billing system. This payment processor is the most resident-facing piece of technology presented by Centennial.	0.0	205,000
An increase for the procurement of new fund management/accounting/budgeting software. The current system is not compatible with the new utility billing system and new software and licensing is needed.	0.0	50,943
An increase for the purchase of new lease tracking software. Tracking leases is now mandated in GASB 87 and GASB 96 and automated tracking will eliminate the need for additional FTE to perform a manual tracking process.	0.0	9,160
An increase to renovate the engineering section of the District office building.	0.0	60,000

CONTRIBUTED CAPITAL

FROM HIGHLANDS RANCH METROPOLITAN DISTRICT

The District requires advance payment of the Reserved Capacity Cost from the Highlands Ranch Metropolitan District for land that is:

- within the Highlands Ranch Service Area;
- included within the boundaries of the Metro District; and
- for which service has been or will reasonably be requested.

This budget is based on the Intergovernmental Agreements (IGA) adopted in December 1990. Under the IGA the Reserved Capacity Cost is calculated as follows:

- by multiplying the number of single-family residential dwelling units zoned for a property or in the case of platted land the number of units shown on the filing, by the Capacity Fee. The Single-Family Residential Capacity Fee effective since January 1, 2000, was \$5,960. The fee is not expected to increase during 2024.
- by multiplying the number of multi-family residential dwelling units zoned for a property or in the case of platted land the number of units shown on the filing, by the Capacity Fee. The Multi-Family Residential Capacity Fee effective since January 1, 2000, was \$3,780. The fee is not expected to increase during 2024.
- for nonresidential land the Reserved Capacity Cost is calculated by multiplying the number of acres (either zoned or platted) by two and then multiplying again by the Nonresidential Capacity Fee (3/4" equivalent) of \$9,650 effective since January 1, 2000, and which is not expected to increase during 2024.

The IGA provides for the following payment levels:

- \$100,000 minimum plus 40% of the remaining amount is due on April 1st following the inclusion with \$100,000 plus 40% of the unpaid balance due each consecutive April 1st (with payment in full of any unpaid balance of less than \$100,000) or as negotiated.
- If, as of October 1st, the amount collected from customers by the Metro District exceeds the amount previously paid to Centennial, the full amount of the excess is due the following April 1st. Any balance remaining after the excess is remitted will be paid according to the appropriate items, above.

In addition to the advance payments required as a result of increases in service area, Centennial will recalculate the Reserved Capacity Cost every October 1st in order to determine additional reserved capacity payments which may be due or owing as a result of; 1) an increase in the calculated Capacity Fees as it applies to all end-user residential dwelling units and non-residential acreage which were previously included within the Metro District but which have not yet been placed in service; 2) changes in the number of dwelling units or nonresidential acreage as a result of rezoning, re-plat or actual use. This additional payment or refund is due the following April 1st.

Centennial also collects two surcharges in addition to the Capacity Fee which are due to Centennial at the time the Metro District sells taps to the end user:

- The channel stabilization surcharge is currently \$250.
- A water acquisition fee is currently at the rate of \$1,480 per residential unit.

FROM MIRABELLE METROPOLITAN DISTRICT

Mirabelle Metropolitan District ("MMD"), which serves outside the Highlands Ranch Service Area, has a unique payment schedule from the Highlands Ranch Metropolitan Districts. To reserve future taps, MMD is required to acquire options in addition to a tap fee that is paid just prior to meter installation. The option is equal to 2% of the number of taps being reserved.

FROM NORTHERN DOUGLAS COUNTY WATER AND SANITATION DISTRICT

Northern Douglas County Water and Sanitation District ("NDC"), which serves outside the Highlands Ranch Service Area, has a unique payment schedule from the Highlands Ranch Metropolitan District. To reserve future taps, NDC is required to acquire options. The option is equal to 2% of the number of taps being reserved. There are currently two developments within NDC boundaries with outstanding options. At the sole discretion of the Board, these options may be renewed by paying back options plus interest. Because the option payments are unknown and immaterial, no estimate has been made.

CAPITAL PROJECTS AND MAJOR REPAIR

- * **Facility and Capital Improvement Plans related to Channel Stabilization, Water Acquisition, and Major Repair**

A Capital Improvement Project is a project to acquire or construct an asset generally with a value exceeding \$25,000 and an expected life of ten years or more.

Appropriations for Capital Improvements are made throughout the year based upon actual projects required and the bids received for construction. Capital project appropriations continue to affect the life of the project. It is expected that these projects will span several years due to the scope of the work being done. Capital improvement projects may include:

- projects identified in the District's long-range Facility and Utility Plans
- major repairs
- water acquisition and development

MAJOR 2024 PROJECTS IDENTIFIED INCLUDE:

- Water Treatment Plant pre-treatment modifications began in 2022 and work will continue through 2024 with major renovations in the chemical building starting in spring 2024.
- Upgrades to the Pump Stations and a pump replacement in zone 1.

New appropriations during the year are combined with any carry-forward, unexpended appropriations from prior years. If the total appropriation exceeds the actual cost of the project, funds are subsequently rescinded. To the extent that the District does not expend authorized amounts during 2023, the unexpended amount will be carried forward to 2024 and is used to calculate the authorized expenses.

**CENTENNIAL WATER & SANITATION DISTRICT
2024 PROPOSED BUDGET**

CAPITAL AND MAJOR REPAIR 2022-2024:

	2022 Actual	2023 Adopted	2023 Revised	2024 Budget
REVENUES & OTHER RECEIPTS				
Bond proceeds	\$ -	\$ -	\$ -	\$ -
Contributed capital	5,445,672	3,069,891	5,905,592	2,266,650
Other/Miscellaneous	-	-	-	-
Net investment income	301,960	67,100	178,300	184,300
TOTAL REVENUES & OTHER RECEIPTS	5,747,632	3,136,991	6,083,892	2,450,950
OUTLAYS				
Capital outlay	25,474,040	28,010,000	11,756,738	5,275,000
Well redrills	-	-	-	-
Miscellaneous Capital	1,066,754	790,000	790,000	-
In-tract Replacement	-	1,200,000	1,200,000	-
TOTAL OUTLAYS	26,540,794	30,000,000	13,746,738	5,275,000
OPERATING TRANSFERS				
From (to) Operating Fund	2,800,000	5,800,000	(1,850,000)	(4,071,699)
From (to) Water Acquisition & Protection Fund	-	-	-	-
From (to) Financial Assurance Fund	-	3,000,000	(3,000,000)	-
TOTAL OPERATING TRANSFERS	2,800,000	8,800,000	(4,850,000)	(4,071,699)
PROJECT RESCISSIONS	-	-	449,272	-
NET RECEIPTS/(OUTLAY) OF FUNDS	(17,993,162)	(18,063,009)	(12,063,574)	1,247,649
FUNDS AVAILABLE - BEGINNING	66,909,929	53,715,225	48,916,767	36,853,193
FUNDS AVAILABLE - ENDING	\$ 48,916,767	\$ 35,652,216	\$ 36,853,193	\$ 38,100,842

FUND BALANCE AND OPERATING TRANSFERS

To assist with the funding, the Board has established various policies relating to target fund balances. To meet these policies, the Board authorizes transfer of resources between the various funds which have been established for budgetary purposes. The primary fund balance policies, the types of transfers and the priority of said transfers are anticipated in the 2022 and 2023 budgets as follows:

OPERATIONS WORKING CAPITAL

The Board has established a target equal to 50% of the next year's estimated operating expenditures. This target provides adequate working capital in case of unusual revenue patterns, economic or natural distress.

OPERATIONS TO DEBT SERVICE

In order to ensure that the District complies with the various ratios required by Bond Covenants the District has chosen to maintain an ending fund balance equal to **100% of the next years' debt**

CENTENNIAL WATER & SANITATION DISTRICT
2024 PROPOSED BUDGET

requirement. After taking into consideration any other directly related available sources of funding, the Operations Fund will transfer funds to the Debt Service Fund to reach the targeted amount.

The rate structure is designed so that the Water Service Availability Charge and the fixed wastewater charge collected in the Operations Fund is the primary source of the funding to make this transfer.

OPERATIONS TO (FROM) -IN PRIORITY ORDER

To the extent that the ending balance in the Operating Fund exceeds the working capital requirement and the Debt Service transfer, excess funds up to \$5,800,000 will be transferred first to the Capital and Major Repair Fund then to the Financial Assurance Fund.

2024 TRANSFER DETAIL

	2022 Actual	2023 Budget	2023 Revised	2024 Budget
OPERATING FUND				
From (to) CP/MR	(2,800,000)	(5,800,000)	(1,850,000)	(4,071,699)
From (to) Water Acquisition	-	-	-	-
From (to) Debt Service	(8,680,000)	(8,000,000)	(9,192,923)	(7,065,584)
From (to) Financial Assurance	-	-	6,000,000	-
Net Transfers	(11,480,000)	(13,800,000)	(5,042,923)	(11,137,283)
CAPITAL PROJECTS/MAJOR REPAIR				
CP/MR from (to) Operating	2,800,000	5,800,000	1,850,000	4,071,699
CP/MR from (to) Water Acquisition	-	-	-	-
CP/MR from (to) FAF	-	3,000,000	3,000,000	-
From (to) Debt Fund	-	-	-	62,000,000
Net Transfers	2,800,000	8,800,000	4,850,000	66,071,699
WATER ACQUISITION FUND				
From (to) Operating	-	-	-	-
From (to) CP/MR	-	-	-	-
From (to) Debt Service	(2,728,830)	(2,728,830)	(2,728,830)	(2,728,830)
From (to) FAF	-	-	-	-
Net Transfers	(2,728,830)	(2,728,830)	(2,728,830)	(2,728,830)
DEBT FUND				
From (to) Operating	8,680,000	8,000,000	9,192,923	7,065,584
From (to) Water Acquisition	2,728,830	2,728,830	2,728,830	2,728,830
From (to) CAP/MR	-	-	-	(62,000,000)
From (to) FAF	-	-	-	-
Net Transfers	11,408,830	10,728,830	11,921,753	(52,205,587)
FINANCIAL ASSURANCE FUND				
From (to) Operating	-	-	(6,000,000)	-
From (to) CP/MR	-	(3,000,000)	(3,000,000)	-
From (to) Water Acquisition	-	-	-	-
From (to) Debt Service	-	-	-	-
Net Transfers	-	(3,000,000)	(9,000,000)	-

DEBT SERVICE FUND

	2022 Actual	2023 Adopted	2023 Revised	2024 Budget
REVENUES & OTHER RECEIPTS				
Contributed Capital	\$ 788,723	\$ 209,475	\$ 191,784	\$ 169,860
Bond proceeds	-	-	-	62,000,000
Other	-	-	-	-
Investment Income	5	15,900	13,700	60,700
	788,728	225,375	205,484	62,230,560
DEBT RELATED				
Principal	6,495,000	6,620,000	6,620,000	3,800,000
Principal (water acquisition funded)	1,188,356	1,224,006	1,224,006	1,260,726
Interest	3,532,836	3,371,000	3,400,484	3,265,584
Interest - (water acquisition funded)	1,540,474	1,504,823	1,504,823	1,468,103
	12,756,666	12,719,829	12,749,313	9,794,413
DEBT ISSUANCE				
Bond issuance expenditures	-	-	-	300,000
	12,756,666	12,719,829	12,749,313	10,094,413
OPERATING TRANSFERS				
From (to) Operating Fund	8,680,000	8,000,000	9,192,923	7,065,584
From (to) Water Acquisition Fund	2,728,830	2,728,830	2,728,830	2,728,830
From (to) CAP/MR	-	-	-	(62,000,000)
From (to) Financial Assurance Fund	-	-	-	-
	11,408,830	10,728,830	11,921,753	(52,205,587)
NET RECEIPTS/(OUTLAY) OF FUNDS	(559,108)	(1,765,624)	(622,075)	(69,440)
FUNDS AVAILABLE - BEGINNING	13,326,702	12,703,353	12,767,594	12,145,519
FUNDS AVAILABLE - ENDING	\$ 12,767,594	\$ 10,937,729	\$ 12,145,519	\$ 12,076,079

10-YEAR CAPITAL IMPROVEMENT PLAN



PURPOSE OF A CAPITAL IMPROVEMENT PLAN

Capital projects have a substantial impact on not only the overall quality of water and wastewater service delivery but also the financial resources of the District. The cost of these projects makes up most of the annual Budget, representing 58 percent of 2023 budgeted expenditures (includes principal and interest payments for capital related debt).

As total capital costs customarily exceed available cash funds, the CIP provides a framework to comprehensively understand the overall infrastructure of the system and prioritize the projects needed to maintain the system to a standard of safety, integrity, and excellence in service. Currently the District lays out its 10-year capital plan as a table in the Annual Budget. While this table shows the estimated costs per project over a defined time frame, it does not go into detail regarding the purpose, scope, and impact to operations. The District has chosen to assemble this document to provide, in further detail, the rationale behind the long-range capital plan and the allocation of resources to the most critical infrastructure needs.

The CIP will present a 10-year capital plan for the various activities of the District. It summarizes the various CIP categories and identifies and defines the major capital projects that have a noteworthy impact to the financial resources and operations of the District. The CIP also summarizes the District's currently identified capital water acquisition projects. The District also found it important to provide qualitative information related to the District's water supply resources as certain sources of water supply stem from water supply agreements. These agreements, if amended or cancelled, have the potential of impacting the District's financial needs for water acquisition, which may then reduce financial resources available for the CIP.

Unlike Centennial's Facilities Plan, every improvement identified in this document may not be built. While the District acknowledges there are inherent risks in deferring projects, the District is operationally and fiscally responsible when making project prioritization decisions. Modifications to water supply sources or delivery points as well as changes in future Federal and State Regulations will be determining factors when annually analyzing project prioritization. If improvements are necessary, this document presents a planning level cost estimate for the appropriate facility. Funding for these improvements will not come from the collection of tap fees and instead be funded through rate changes, debt proceeds, or other financing mechanisms.

The Capital Improvement Plan will be updated annually to capture any year-over-year quantitative and qualitative divergences.

PROJECT PRIORITIZATION

During the annual budget process, the General Manager and staff meet to re-evaluate the CIP. Together they analyze the previous years' identified projects to determine if any changes need to be made for the next budget year. To make these determinations they review:

1. Changes in financial resources available for capital projects,
2. Changes in project costs due to inflation and/or change in scope,
3. Events that occurred during the year that warrant a new (or accelerated) project,
4. Any regulatory changes requiring capital improvements, and
5. Any change to water supply needs.

During this process the group will also review changes to the available fund balance after inputting the updated CIP costs into a forecast model. The model will show if current and projected fund balances are able to absorb all project costs within a rate increase that is justifiable to customers and the Board. If more financial resources are needed, there are two options:

1. Re-prioritize projects in the CIP and/or,
2. Discuss ways the District can augment financial resources.

District staff presents the final CIP schedule and forecast model to the Board during their November "Budget Workshop" where, utilizing staff feedback, the board can review the CIP schedule and provide direction regarding project prioritization.

MAJOR CAPITAL PROJECTS

JOSEPH B. BLAKE WATER TREATMENT PLANT (JBWTP)

The JBWTP was constructed in 1986 and then expanded and upgraded in 1999. The Plant is a conventional surface water treatment facility and is located at the northwest corner of Highlands Ranch just south of C-470 on the south side of Plaza Drive. See Map 1 for a detailed look at the JBWTP site.

Primary raw-water sources to the Plant come from the South Platte River (including some local South Platte alluvial ground water) and ground water from a Laramie-Fox Hills aquifer well located near the forebay of the Plant. The District uses Chatfield Reservoir water storage facility (partially owned by the District), the South Platte Reservoir (owned by the District) and McLellan Reservoir (leased through the City of Englewood) to store raw water.

Upon completion of several projects currently identified in the 10-year CIP, the JBWTP will meet the maximum day demand (MDD) required after the District's service boundaries are at 100 percent buildout. This will maximize flexibility of available water resources by allowing MDD to be met wholly from surface water sources. Other water resources, such as WISE water or groundwater, are available. The community's needs can be met during winter months using these alternate water supplies if the District needs to take the JBWTP off-line to accommodate maintenance and repairs.

MAJOR CAPITAL PROJECTS

Staff has established a goal of achieving a reliable maximum treatment capacity of 40 million gallons per day (MGD). In 2018 the District commissioned a Water Treatment Utility Plan (WTUP) for the purpose of evaluating the condition of existing equipment and the effectiveness of each treatment process, and providing design recommendations and developing conceptual cost estimates for improvements that would enable the District to achieve its core values.

The WTUP outlined five sequential design and construction phases intended to achieve capacity goals while maintaining compliance with anticipated regulatory requirements. After an evaluation of project financing, the District determined that Phase 1 would be more financially viable if it was split into two phases: 1A and 1B. Additionally, Phase 5 of the WTUP improvement project is deemed not necessary under existing regulatory requirements.

PHASE 1A

This Phase focuses on the modification of existing pre-treatment processes, providing a system that meets the minimum Colorado Department of Public Health and Environment (CDPHE) flocculation hydraulic retention time requirements and improves settled water turbidity (a measure of the clarity of a liquid) by replacing existing tube settlers with plate settlers. Additionally, this project includes the in-kind replacement of raw water piping and flow control. These upgrades will allow JBWTP to produce 30 MGD of potable water reliably.

In March 2020, the District selected Carollo Engineers, Inc. for engineering design. In January 2021, the District awarded construction to Garney Companies, Inc. The project is currently underway and is scheduled to be completed Spring 2024 at an estimated cost of \$22.2 million.

PHASE 1B

This phase consists of constructing a new chemical building (and related feed lines), which will allow the District to reliably store chemicals for up to 30 days. Additionally, the power system will be upgraded with a replacement backup generator and power feed due to aging infrastructure concerns. Improvements to HVAC in the pre-treatment facility and SCADA network modernization are also included in the project. These upgrades will allow the WTP to continue to produce 30 MGD of potable water reliably.

Initially the District anticipated an award of construction in January 2024. However due to current supply chain issues, the District is planning to award construction in August, 2023 Construction is estimated to take approximately 2 years, which will bring the improvements online at the beginning of the 2026 water season. The project is currently budgeted in the CIP at an estimated cost of \$62 million.

PHASE 2

The 2nd phased step will focus on upgrading the filtration system, which will allow the Plant to produce 35 MGD of potable water reliably. There will also be improvements to the chlorine contact basin (CCB). Improvements to the pretreatment system and the future addition of a pre-oxidation system are expected to reduce solids loadings onto the filters, thereby helping to further improve the treatment capacity. The improvements consist of:

- Converting to a deep-bed configuration with larger diameter media, allowing filters to operate at a higher hydraulic loading rate (HLR) of 8 gallons per minute per square foot, or greater,

- Modifying the Filter Effluent Structure to increase the available head through the filters, and
- Improving the backwash system to allow the filters to be adequately cleaned following a filter backwash.

Improvements to the CCB include modifications to accommodate a backwash water supply, a new Backwash Supply Pump Station, and an improved baffling factor for the basin so that it can be rated for the Plant's full capacity of 40 MGD. The CCB Upgrades include the following components:

- Inner-basins walls will be partially demolished to convert into a single basin at all operating water levels within the tank,
- Construction of concrete walls at the first row of support columns to create a separate and independent backwash supply volume while keeping an unchlorinated water volume for the backwash supply,
- Construction of perpendicular baffling walls to create an approximate 44:1 length to width flow path, and with baffled inlets and outlets to the CT (concentration * contact time) volume, to receive a rated baffling factor of 0.6, and
- Addition of chlorine and ammonium sulfate feeds directly into the CCB in lieu of the finished water pumping headers.
- Repair a potential backflow path identified during a CDPHE sanitary survey in March 2023.

Other miscellaneous upgrades are planned to improve the operability of the filters. Once pre-oxidation is implemented at the JBWTP, the filters will operate in a biologically active filtration mode.

Project design is anticipated to begin in 2025 with the project bid going out in 2026 for a Spring 2028 completion date. The project is currently budgeted in the CIP at an estimated cost of \$48 million.

PHASE 3

This phase will address upgrades to Zone 1 (constructed in 2001) and Zone 2 (constructed in 1987) pump stations, allowing for 40 MGD of reliable potable water delivery to the distribution system. Additionally, the backup power system for these pump stations will be upgraded through the replacement of the backup generator.

PUMP STATIONS

The nature of the project is conducive to phased upgrades to the pump station and isolating individual parts of the project for completion, such as addition of the Zone 1 surge tank and replacement of the damaged discharge header. The JBWTP can be off-line for approximately five months during the winter shut down period. Initial portions of the Zone 1 and Zone 2 Pump Stations improvements can only be completed while the pump station is offline, which in turn means the Plant cannot supply water to the distribution system.

BACKUP POWER

Involves the replacement of the existing site backup power consisting of a single 420 kW generator with power systems of adequate capacity to run the entire JBWTP. Multiple configurations were evaluated for the backup power system, and it was determined that a single generator system is infeasible due to the required size of the resulting generator. The WTUP suggests three independent generators with individual auto-transfer switching for each generator.

Project design is anticipated to begin in 2027 with the bid going out in 2028 for a Spring 2029 completion date. The project is currently budgeted at an estimated cost of \$35 million.

PHASE 4

This (currently anticipated) final phase of the project will add a pre-ozonation system to the Plant which tackles biological compounds that impact overall taste and odor as well as improving total organic compound removal. The system can also assist with flocculation characteristics to help improve removal of particles and colloidal material in the raw water. This phase of the project will begin to address water quality regulations as they continue to progress through state and federal legislative bodies.

Project design is anticipated to begin in 2029 with the bid going out in 2031 for a Spring 2032 completion date. The project is currently budgeted at an estimated cost of \$70 million.

PHASE 5

This phase addresses on-site residuals handling. As there are no current regulatory or process limitations that would compel improvements, Phase 5 is not included in the long-range CIP.

MARCY GULCH WASTEWATER TREATMENT PLANT (“MGWWTP” or “Plant”)

The MGWWTP is located southeast of Highway 85 and Highway C-470 intersection. The Plant was constructed in 1984 and underwent major facility upgrades in 2000, 2002, and 2014. The Plant discharges to Marcy Gulch, which then flows northwest into the South Platte River just upstream of the C-470 bridge crossing the river. In addition to its service area, the MGWWTP receives treatment residuals from the JBWTP via the collection system.

MAJOR CAPITAL PROJECTS

Improvements at the Plant are driven by (a) regulatory requirements (see Appendix 3), (b) capacity and redundancy, (c) aging infrastructure, and (d) health and safety.

PHASE 1

Completed in 2015 at a cost of \$6,875,000, the Phase I project included the following:

- Conversion of the existing Trickling Filters into Primary Clarifiers and a new Primary Clarifier Pump Station,
- Modifications to the Headworks building including replacement of the ferric sulfate feed system and modifications to the flow monitoring flumes,
- Modification to the existing flow splitting structure, and
- Addition of sludge pumps, heat exchanger and gas compressor in the Digester Building and rehabilitation of the West Digester Cover.

PHASE 2

The MGWWTP Phase II Improvements consist of complex and time sensitive modifications to the existing treatment facility that will enable the plant to comply with new regulatory discharge requirements.

Award of Construction for Phase II was approved in January 2019 at a total construction cost of \$80.1 million which included consulting services and administrative expenses. The Notice to Proceed date was March 18, 2019. The project remains under construction with a current estimated completion date of the 2nd quarter, 2024.

Key elements of the Phase II project include:

- Construction of a new Blower Building and conversion of existing Blower Building to a new Chemical Feed building,
- Construction of a UV building and a Biosolids Hopper building,
- Rehabilitation of the Digester Control building, the Headworks, and the Dewatering building,
- Construction of two Activated Sludge Basins and renovation of the four existing basins,
- Construction of a RAS Fermenter and renovation of the RAS/WAS Pump Station,
- Additional construction includes a Cascade Aerator, Gas Holder, Primary Effluent Flow Split Structure, and Mixed Liquor Flow Split Structure,
- Rehabilitation of the existing Secondary Clarifiers and East and West Anaerobic Digesters and,
- Installation of new sitewide electrical and SCADA control systems.

WATER REUSE FACILITY

This facility has previously provided non-potable irrigation water from wastewater effluent to Windcrest, Highlands Ranch Golf Course, and Redstone Park. Construction during the Phase 1 project rendered the reuse facility inoperable, and renovations are required to put it back into service. Without the reuse system, the irrigation demands are being met by providing raw water to these customers that would have otherwise been available to produce drinking water. Once this project is complete, approximately 500 AF of reuse water will again be available for drinking water production.

Project components include the replacement of: (1) chemical storage tanks and pumps, (2) filters, (3) the electrical room, and (4) valves and piping. The expansion of water storage and the addition of irrigation piping surge protection and storage (via pressure tank) are also included in project scope. The design phase is anticipated to begin in 2024 with construction beginning in 2025 at an estimated cost of \$5 million.

PHASE 3

In 2012, the CDPHE Water Quality Control Division (“WQCD”) proposed a new standard for nitrogen and phosphorus levels in certain lakes and reservoirs. See Appendix 3. If adopted as written, the standard would have applied to the District’s required protection of Barr Lake’s water quality. However, in April 2023, the Colorado Water Quality Control Commission held a rulemaking hearing to consider the final adoption of this regulation and elected to defer the requirement until 2027.

WQCD has signaled that they will work with the District to develop a site-specific standard as opposed to requiring infrastructure for reverse osmosis treatment, which was initially anticipated to be the obligation. As the standard is still imminent, the District will have to continue to plan for this large capital cost. However, as we are no longer bound to reverse osmosis treatment, the cost of Phase 3 will decrease dramatically.

TEMPERATURE MODIFICATION

Since 2009, Centennial has been allowed to operate under a “temporary modification” for temperature during the winter months (December- February) however when the modification expires (could be as early as 2024), the Plant will be unable to meet the temperature standards regulation. Centennial is currently working with WQCD to change the wintertime standard to be scientifically defensible.

Centennial hired the consulting firm Brown and Caldwell (“B&C”) to evaluate the different treatment technologies and concluded there are two feasible technologies available: mechanical chillers and cooling towers. However, barriers to implementing these two technologies include water rights

limitations, siting considerations (currently investigating with B&C), operator control, and the potential need for chemical treatment or redundancy to control fouling. The estimated \$27.9 million project is currently budgeted for in the 2034-2038 timeframe.

WELLS

The District currently utilizes 33 potable and 5 alluvial wells to serve the community in its daily operations. See Maps 4 and 5. The long-range plan for Wells is an on-going conversation between the Water Resources, Operations, and Engineering groups. Any decisions made will be included in subsequent CIP reports.

Capital projects currently underway include:

- WELL SP-14 - To facilitate the collection of irrigation, return flows and reusable effluent from the South Platte River, the District has developed decreed water rights divertible from the Ensor alluvial wellfield, located northwest of the intersection of C470 and US85. Well SP-14 is the fifth and last remaining South Platte alluvial well. Construction is anticipated to be completed by December 2023 at an approximate total cost of \$1.4 million.
- WELL A-1R – this project is to replace Arapahoe Well A-1 which was constructed in 1981 and is due for replacement; it is the last Arapahoe well operated by the District to be replaced. The existing well, which will be converted to a monitoring well, is located on a small residential lot and more space is needed for the replacement. In 2013, a site for the replacement was identified in adjacent open space and easements have been granted by HRMD. As this is a new location, underground vaults, piping, and equipment will be required as well as power supply brought in by Xcel Energy. The project is estimated to be complete in October 2023 at an approximate cost of \$2.7 million.
- WELL D-20A - located in the Highlands Ranch Community Association’s Open Space Conservation Area, the site is located next to an existing well line and near available power lines. Due to the JBWTP Phase 1A Improvements, staff began evaluating opportunities (in addition to the already planned re-drill of A-1R) to increase production capacity. It was determined that an additional Denver Well, rather than another re-drill, is the best opportunity for the District to increase production capacity. The project is anticipated to be completed in October 2023 at an estimated cost of \$2.4 million.

DISTRIBUTION SYSTEM

The Distribution System is designed to deliver the required flow, storage, and minimum pressures as required for average daily demand, MDD, peak hourly demand, and fire flows for build-out conditions. The transmission and distribution piping are designed as a looped system for maximum system reliability. The goal is to have two distribution tanks per zone, however only two zones currently meet this goal. The pump stations are designed with an N+1 philosophy (i.e., there are sufficient pumps to meet MMD plus one additional pump for redundancy) to ensure reliability of the system.

The District currently utilizes 14 pump stations and eight distribution tanks that are spread throughout the District.

MAJOR CAPITAL PROJECTS

MCLELLAN A PUMP STATION

McLellan A was constructed in the early 1980s to provide raw water to the surface water plant. McLellan A is vital to the system in that it supports the production of the required flow needed to meet overall system demand. Project components include the replacement of: (1) pumps, (2) existing power feed, (3) motor control center, (4) backup generator, and (5) inlet and discharge piping. Additionally, upgrades are further necessary to meet current design criteria. The district has budgeted \$2 million in 2025 for this project.

ZONE 4A PUMP STATION

Zone 4A Pump Station was constructed in the early 1980s and is one of the two main stations that provide potable water to Zone 4. Without this station, we cannot distribute enough water to Zone 4, 5, and 6 to meet system demand from the Surface Water Plant. Project elements include the replacement of: (1) the existing power feed, (2) the motor control center, (3) the backup generator, (4) suction and discharge valves, and (5) the pumps. Additionally, upgrades are further necessary to meet current design criteria. The district has budgeted \$2 million in the 2029-2034 period.

CLINE DELAYED RETURN FLOW

The Cline Ranch delayed return flow facility was constructed between 1999-2001. Since then, it has been determined that the District is not realizing all allowable annual yield due to current facility capacity. This project would construct an additional return flow facility to capture the remaining allowable acre feet. Design of the facility is currently planned to begin in 2025 and construction to begin in 2027. The CIP currently has a budget of \$1.7 million for the project.

LONG-RANGE PLAN

In 2019 the district worked with B&C to conduct a Field Asset Replacement Planning Model. This report analyzed both water distribution and wastewater collection system refurbishment and replacement needs. While large replacement projects are not currently required, as the distribution system ages over the next several decades capital replacement costs will increase. Presently, the district budgets approximately \$1 million every two years for required pipeline replacement projects. As the system ages, staff will continue to plan and budget for more specific capital projects.

LIFT STATIONS

The District's lift stations are strategically located within the wastewater conveyance system. Lift stations, typically located in low points, receive flows conveyed from the gravity sewer collection system. The lift station then collects and pumps the wastewater flows uphill, through a pressurized force main, to a discharge point where the flows transition back to a gravity conveyance transmission main.

The District currently has six lift stations in operation throughout the service area.

MAJOR CAPITAL PROJECTS

The District has identified deficiencies at the three largest lift stations: Big Dry Creek, Marcy Gulch, and Willow Creek. Additionally, a new lift station, known as the Mirabelle Lift Station, was constructed to convey wastewater flows from the Solstice Development to the MGWWTP.

BIG DRY LIFT STATION UPGRADE

Constructed in the mid-1980s, the lift station needs an upgrade to be able to meet current design criteria and to replace aging infrastructure. Project elements include:

- Upgrade of the existing power feed and the motor control center,
- Replacement of the backup generator,
- Additional process equipment is needed to minimize wet-well cleaning and grease buildup, and
- An emergency storage system to meet current CDPHE design criteria.

The project is estimated to begin design in 2025 with a request for bids going out in 2026 for a completion date in 2027. Current estimated cost is \$10.5 million.

WILLOW CREEK LIFT STATION UPGRADE

Constructed in the mid-1980s, the lift station needs an upgrade to be able to meet current design criteria and to replace aging infrastructure. The design will be based on the Marcy Gulch Lift Station project (detailed below). Project elements include:

- Upgrade of the existing power feed and the motor control center,
- Replacement of the backup generator,
- Replacement of control building,
- To combat odor, potential replacement of the chemical feed system,
- Additional process equipment is needed to minimize wet-well cleaning and grease buildup, and
- An emergency storage system to meet current CDPHE design criteria.

The project is estimated to begin design in 2026 with a request for bids going out in 2027 for a completion date in 2028. Current estimated cost is \$7.5 million.

MARCY GULCH LIFT STATION (MGLS) REPLACEMENT - COMPLETED

Previously known as the Chatfield Lift Station, MGLS was constructed in 1981 and is located on the western edge of the MGWWTP.

Historically it received gravity flows from the Santa Fe corridor however it began receiving flows from the Solstice Development, located south of Chatfield Reservoir, in 2018. The flows contributing to MGLS will continue to increase until the Solstice Development reaches full buildout (expected by 2026).

MGLS was identified for replacement due to the fact the equipment was reaching the end of its useful life, the capacity was undersized to take the additional full buildout flows from Solstice, and it lacked emergency overflow capacity in accordance with current regulatory requirements.

Design of the new MGLS commenced in July 2018 based on a hydraulic design capacity of 1,050 gallons per minute (the maximum month daily average) and a peak capacity of 2,000 gallons per minute. Construction began in January 2021, with a total construction cost of \$8.19 million, and was substantially completed in December 2022.

SUPERVISORY CONTROL AND DATA ACQUISITION (“SCADA”)

The SCADA system provides information and controls for all of the District’s facilities. The system is comprised of instruments, transmitters, Programable Logic Controllers (PLC), radios, network devices, servers, and other components needed to automate and monitor all aspects of the water and wastewater system. All SCADA functions for field assets, such as lift stations and pump stations, are conveyed to the JBWTP control room along with the SCADA functions for the JBWTP itself. SCADA functions for the MGWWTP are conveyed to the MGWWTP Control Room.

LONG RANGE PLAN

The SCADA system is critical to the District's mission and must function 100 percent of the time for the District to continue to provide reliable water and wastewater service to the community. The current system is aging, and critical components are no longer supported by most manufacturers. A SCADA Master Plan is needed to determine an overarching philosophy for how the system will function into the future. This plan will detail:

- Level of Service Goals and Uptime Requirements,
- Standardization,
- Mode and Media Communication Type per Site,
- Telemetry Structure, and
- Bandwidth Requirements.

The CIP has identified \$150,000 in the 2024 budget for creation of the Master Plan and \$1.5 million in 2025 for plan implementation which will be prioritized on a site-by-site basis.

ADMINISTRATIVE AND OFFICE FACILITIES

The District is committed to the health and safety of employees which, in certain cases, may require a modification or upgrade to one of the many facilities the District utilizes to house staff.

MAJOR CAPITAL PROJECTS

Currently the District has proposed in the CIP the expansion of the Operations building at the MGWWTP, modifications to two buildings at the JBWTP, and the construction of a new Collection and Distribution (“C&D”) building at the JBWTP. These plans take into consideration not only aging infrastructure but also space needs for staff.

Identified facility needs for the MGWWTP Operations Building include:

- 11 offices, a “bull pen” for lab staff and SCADA technicians, and a reception area.
- An expanded and dedicated server room (will require HVAC improvements).
- A dedicated room housing documents either in use or required for record retention.

Identified facility needs at the JBWTP include a transformation of the current layout of the Filter Building to accommodate seven offices, and a “bull pen” for administrative staff in the Administration building. Further, a replacement of the C&D building to accommodate five offices and a “bull pen” area for field staff, meters staff, C&D staff, and GIS.

The CIP currently estimates the project to take place in 2030 at a cost of \$15 million.

WATER ACQUISITION

The District must consistently have a focus on its water resources. As capital water acquisition is limited and costly, it's important that the CIP addresses the District's water resources, how the District manages its financial resources through water supply agreements, and the steps the District takes in conserving current water supply for future reliability.

WATER SUPPLY OVERVIEW

To bring enough surface water into the system to meet the current MDD, the District uses a combination of our owned water rights and agreements with other water providers.

The District currently owns the following water supply rights*:

- Five senior – 1,060 AF
- Four junior – Chatfield average of 571 AF (2021-June 2023); all others 680 AF
- Two contractual - Denver Water 1,000 AF; WISE 373 AF (average 2017-2022)
- Two other rights that are outside of the priority system – 4,070 AF
 - *Annual AF average from 2002-2023, unless otherwise noted.

The District also currently holds four water storage reservoirs (see Map 8) with the following capacities:

- South Platte - 6,400 AF
- Chatfield - 6,922 AF
- McLellan - 3,885 AF
- Tingle - 205 AF

Combined, they provide approximately 17,400 AF of water storage space.

Additionally, the District has rights to withdraw annually approximately 17,860 AF of groundwater in various aquifers (collectively known as the Denver Basin):

- Arapahoe (rights secured in 1980) – 6,460 AF
- Laramie-Foxhills (rights secured in 1980) – 4,290 AF
- Denver (rights secured in 1984 and 1988) – 7,110 AF

The quality of groundwater requires treatment to satisfy the applicable state and federal regulations for potable water. Twenty-nine of the District's 33 potable wells produce economically viable groundwater. They are connected to the two groundwater treatment plants which have a total production capacity of 8 MGD. The District also has nine other drilled, economically viable wells not connected to the GWTPs:

- One connected to the JBWTP forebay for eventual treatment,
- The second used exclusively for privately-owned golf course, outdoor irrigation only,
- Four wells required to have on-site water quality treatment before use, and

The remaining three wells release to a nearby drainage conveyance which takes the water to McLellan Reservoir for eventual treatment through JBWTP.

By having access to both surface water and groundwater, the District is able to employ a “conjunctive use” - the simultaneous development of renewable surface water and nonrenewable groundwater - approach to water supply management. Utilizing this method has given the District essential time needed to develop a water supply plan (preferably renewable surface water) that reliably supports build-out demand. Build-out is estimated to be a total of 47,150, ¾-inch equivalent taps. The 41-year historical water use has averaged 0.3894 AF per ¾-inch equivalent therefore build-out water demand is rounded to a value of 20,000 AF of raw water needs per year.

CHATFIELD STORAGE AND RELOCATION PROJECT - COMPLETED

The District’s participation was driven by the desire to obtain surface water storage in an on-channel reservoir near our facilities. To date, the District’s contribution to the project is approximately \$60 million. Through the project, the District was able to increase surface water storage space by 6,922 AF, which is the anticipated yield in a “wet year”. It is expected that no additional water yield will be available in a “dry year”; estimated long-term water yield average is 2,500 AF per year. The graph below shows the AF of water stored in Chatfield from commencement through April 30th, 2023.

During May 2023, the region experienced historical rain fall which allowed the District to capture enough water to fill Chatfield storage to capacity:

The challenge of the project is the variability of yields, possible water quality problems, and continuing costs to fulfill mitigation obligations. The 2023 budget for participation in the project includes an annual management assessment of \$553,760 and a capital contribution of \$692,200 for mitigation activities.

WATER SUPPLY AGREEMENTS

The District remains diligent in finding creative ways to supply water (outside of solely owned sources) to customers at a cost that helps keep water rates, fund balance, and capital outlay at reasonable levels. As such, the District has entered into multiple water supply agreements as a security mechanism against periodic times when surface and groundwater supply is low and not sufficient to meet the MDD.

Detailing these agreements in the CIP is important as any change in the conditions of the agreements (or cancellation of) could have a noteworthy impact on the District’s long-term capital funding for water acquisition.

While the cost of these agreements is meaningful, when looking at the cost of capital water acquisition, the associated ongoing maintenance and repair costs, and the scarcity of water supply, these agreements are vital to the reliability of water delivery to the District’s customers.

WATER INFRASTRUCTURE AND SUPPLY EFFICIENCY (WISE)

The WISE partnership is a regional project between Denver Water, Aurora Water and 10 members of the South Metro Water Supply Authority (“Authority”) which serve water to communities in Arapahoe and Douglas counties. The goal of the program is to reduce the region’s reliance on nonrenewable groundwater. The District’s membership in the program was formed pursuant to the Authority’s Formation and Organizational Agreement dated December 31, 2013.

The WISE partnership works by recapturing water after it's used by Denver Water and Aurora Water customers then re-treating and sharing, when available, with Authority partners. WISE will provide members with a minimum of 100,000 acre-feet of water every decade for an average of 10,000 acre-feet per year, with 1,000 acre-feet dedicated to the District. Members are responsible for developing infrastructure and connections necessary to take delivery and are responsible for maintenance of such individual infrastructure.

The driving forces for the District's participation in WISE are summarized as:

- To obtain additional surface water supplies at up to 1,000AF per year, based on availability of water in the WISE system,
- To further diversify water sources thus reducing water acquisition costs,
- To obtain an additional avenue where treated water can be delivered to the District's system for redundancy, and
- To support a regional water supply development project.

The challenge is that, due to the nature of water supply, delivery may be unreliable.

To date, the District has contributed \$10.56 million to participate in the project (including water delivery) and \$587,000 of direct capital costs for the construction of the WISE interconnect. Each year the District must continue providing resources for on-going capital costs to the system as well as the operation of it. The 2023 budgeted costs for the District's participation in the program totaled \$1.37 million in capital costs for the DIA connection and Salinity Management land acquisition and \$1.65 million in operating costs (including minimum quantity water take-or-pay). The District anticipates obligations of up to \$15 million in future years for the DIA Connection and Salinity Management projects.

CITY OF ENGLEWOOD ("Englewood")

ENGLEWOOD WATER SUPPLY AND FACILITIES AGREEMENT (WSFA)

A lease for raw water and the use of excess capacities in water storage and delivery facilities. The effective date of the lease was January, 2003 for a 20-year term (ending December, 2022) however the District has sole discretion to extend the initial term for up to a total of four additional 20-year periods. The 2nd 20-year period began in 2022.

There are separate annual lease payments for excess capacity use at McLellan Reservoir, City Ditch, and Nevada Ditch. Annual payments for water or facilities are adjusted annually using a CPI basis for adjustments, or the parties may alternatively use an "appraisal basis of adjustment" once every five years. The contract also includes water delivery from Ranch Creek (up to 700 AF delivered only in May and June) and storage capacity in McLellan Reservoir (up to 900 AF).

If certain levels of water are consistently offered over multiple years, the additional water is considered to be in a "higher priced categories" which incentivizes Englewood to deliver their excess water to the District.

ENGLEWOOD RANCH CREEK AGREEMENT (RCA)

Beginning July 1977, the agreement is for unlimited 20-year terms continued at the District's sole discretion unless Englewood determines that it "needs the water herein leased" and terminates the

agreement.; the agreement was last renewed in July, 2018. Payments are made in a lump sum on April 1st of each year, independent of the yield realized.

The contract gives the District a percentage of the yields of two water rights and a percentage of the storage space in McLellan Reservoir:

- 50% of the operational capacity in McLellan Reservoir: approx. 2,970 AF,
- 50% of the yield of McLellan 1948 water right, and
- 60% of the yield of the “Basic Deliveries” of RCA water rights.

The water delivered from Ranch Creek is further divided into two categories:

- Basic Deliveries: a total of up to 1,620 AF per year; single-use water can be delivered at the District’s request, and
- Paid Deliveries: a total of up to 700 AF per year; reusable water is available for delivery from May 1 to June 30.

There is a risk of low, to no yield from each source and there could be years when no water is delivered.

DENVER WATER

This is the most reliable surface water source in the District’s possession. Entered in 1994, this is a perpetual agreement with no set term nor is there a termination provision. The contract allows for a supply of up to 1,000 AF per year with “dry year” yields averaging 964 AF. The District requests, a month in advance, when (and where) it would like to take water deliveries but with the provision that no more than 50 percent of total can be taken between May 1st to September 30th nor more than a maximum delivery of 250 AF in any single month. The supplied water cannot be injected into the deep underground aquifers. There is also an emergency interconnect provision for treated water during episodes of water system failures.

CENTER OF COLORADO WATER CONSERVANCY DISTRICT (CCWCD)

2003 AGREEMENT

Entered for an initial term of 50 years and one 50-year renewal option, the District and CCWCD lease water yields from the Bargas Ranch in South Park. The water rights are owned by CCWCD however the District has the first right of refusal if they decide to sell.

There is a total of 700 AF available of which CCWCD is allotted no more than 200 AF. In the earlier years of the contract, CCWCD did not require their full 200 AF and, in turn, leased to the District the remainder of what they did not use. However, in more recent years, CCWCD has required more of their 200 AF. As such, yields to the District have decreased and it is anticipated that, in the future, will receive closer to the allowable 500 AF per year. The District’s historic average yield received is approximately 658 AF per year; estimated dry year yield is approximately 364 AF.

2008 CONTRACT: JAMES TINGLE RESERVOIR OWNERSHIP AND OPERATION AGREEMENT

This agreement addresses the ownership and maintenance of Tingle Reservoir and Sessions Ditch. Tingle Reservoir was built to provide delayed return flows of 165 AF per year to the nearby Michigan Creek. However, Tingle Reservoir was built at a larger size (400 AF) therefore CCWCD and the District have split the excess volume of 235 AF, with 30 AF allotted to CCWCD and 205 AF to the District. The average

historic yield is 77 AF per year with an estimated dry year yield of 6 AF. The Sessions Ditch is split in the same proportion.

CASTLE PINES NORTH METROPOLITAN DISTRICT (CPN) IGA

Entered into in 2010, this wheeling agreement allows CPN to wheel its water from the South Platte River through the JBWTP (and the District's distribution system) to a point of connection from October 1st through April 30th of the following year. Fifteen percent of the water wheeled by CPN is allotted to the District which has been averaging 149 AF per year with an estimated dry year yield of 94 AF. This is a 50-year term with three consecutive 10-year term renewals, by mutual agreement.

CLINE RANCH

This water right has provided an average historic yield of 338 AF per year with an estimated dry year yield of 207 AF. The District owns 90 percent of the yield and has been leasing the other 10 percent from the Cline family. The District hopes to acquire the other 10 percent. The yield is limited to the April - October irrigation season and the water is reusable. The yield could be increased an estimated 150 AF per year with the development of additional return flow capability from contemplated upgrades to existing facilities.

WATER ACQUISITION LONG-RANGE PLAN

As mentioned before, the District depends on a combination of surface water and groundwater to provide reliable service to our customers which, in most years, is more than sufficient to meet annual demand. The District has conducted internal planning to provide a framework for the District's water use to meet long-term reliability and sustainability goals, keeping in mind the financial resources available to support the Water Acquisition CIP.

Through analyzing 41 years of water delivery to District customers, staff found that surface water vulnerabilities include, but are not limited to:

- the reliance on leased water along with,
- the lack of ownership and/or control over 3rd party providers' water facilities,
- the financial resources available for capital acquisition, and
- regulatory requirements for reservoir water quality treatment.

While the acquisition of additional reservoir space isn't the backbone of the Long-Range Plan, if the acquisition of addition surface water supplies can most cost-effectively be achieved by acquiring additional storage space, the District will take into consideration when annually reviewing the CIP.

Long range planning is vital to understating the future financial resources needed to support the CIP, especially recognizing that we are not yet at build-out and will have a larger population to support in the coming years. The District is committed to protecting its water resources and has put into action programs that will assist in reducing the financial impact of water acquisition, as discussed below.

WATER CONSERVATION

Conservation efforts include, but are not limited to:

- Outdoor watering cannot occur between 10 a.m. and 6 p.m. (implemented in 2004).

- Hand watering and car washing is allowed, but hoses must be equipped with a shut-off device to prevent a constant flow of water.
- Wasteful use of water, such as excess water flowing into gutters or unrepaired leaks that lead to excess water use, is disallowed.

Since 2009, all commercial irrigation systems have been required to have a functioning rain sensor.

These rules are enforced by seasonal water monitors who circuit the District during the summer months. There will be times when drought response actions, such as limiting outdoor watering to specific days of the week, will be needed in addition to the standard water efficiency efforts listed above. Restrictions are used to assist in the return of normal water-supply and storage levels and will be implemented in accordance with the District's Drought Response Plan.

- The District also has implemented technical assistance and initiatives to aid in water efficiency and availability:
- The turf conversion program that offers an incentive (up to \$1,500 per household based on a maximum conversion area of 1,000 SF) to convert "water thirsty" plant materials into water efficient landscape:
- \$1.50/sq. ft. for ColoradoScape (a natural landscape, comprised of low to very-low water use plant material)
- \$1.00/sq. ft. for low water use turf (ex. DogTuff)
- \$0.75/sq. ft. for hardscape or artificial turf
- Residential and non-residential smart controller rebate of up to \$75.
- Residential drip irrigation conversion equipment rebate of up to \$25.
- Residential rain barrel rebate of up to \$50 per season.
- Residential and non-residential soil test rebate of up to \$25.
- Non-residential customers are limited to two rebates per year.

DROUGHT RESPONSE PLAN

The District has a comprehensive Drought Response Plan (DRP), initially adopted by the Board in 2021 and revised in March 2023. The goal of a coordinated Drought Response Plan (to the extent possible) is to maintain the health, safety and economic vitality of the community's water resources. It is designed to maximize available water supplies and reduce water use during times of water shortage caused by drought.

In order of priority, the DRP's goals are as follows:

- Provide sufficient water supply to maintain the health, safety and economic vitality of the community and meet indoor water demand for all customers with priority for hospitals, health clinics, residences, schools, government offices and businesses.
- Provide sufficient water supplies for the maintenance of heavily used irrigated landscapes and facilities to the extent achievable depending upon the drought severity,
- Provide sufficient water supplies for the maintenance of irrigated residential property and parks to the extent achievable depending upon the drought severity,
- Provide sufficient water supplies for the maintenance of irrigated common areas such as government property within the community to the extent achievable depending upon the drought severity, and

- Provide sufficient water supplies for the maintenance of irrigated commercial property to the extent achievable depending upon the drought severity.
-

DROUGHT STAGE SEVERITY GUIDANCE

The District has adopted indicators to guide decisions on implementation of drought response measures.

FUTURE WATER ACQUISITION ALTERNATIVES

The District has gradually developed a proven conjunctive use approach to providing reliable water service to its customers over the past 42 years. The system has strengths and vulnerabilities, but this approach has met the District’s obligation of providing safe and reliable water supply.

Looking into the future, the District is mindful that the requirement to find additional water supply avenues is very likely. As such, staff are always looking ahead for opportunities that may exist to ensure water supply requirements are reliability available.

GLOSSARY



GLOSSARY

<i>Absorption:</i>	An estimate of the expected annual sales or new occupancy of a particular type of land use. For example, the demand for new homes in a market area is estimated to be 500 per year.
<i>Base Capacity Fee:</i>	A portion of the tap fee paid by developers prior to installation of the tap. The fee is calculated based on an estimated cost of all facilities allocated by user class.
<i>Bond Covenant:</i>	An agreement between the issuer and holder of a bond, requiring or forbidding certain actions of the issuer. Positive covenants require actions while negative covenants forbid them.
<i>Capital Outlay:</i>	A capital expenditure either adds a fixed asset unit or increases the value of an existing fixed asset.
<i>Enterprise Fund:</i>	In governmental accounting, a fund that provides goods or services to the public for a fee that makes the entity self-supporting.
<i>Fund Balance:</i>	The excess of a governmental fund's assets and revenues over its liabilities, reserves, and expenditures at the close of the fiscal year.
<i>Governmental Funds:</i>	Funds generally used to account for tax-supported activities.
<i>Proxy:</i>	Substitute: in the case of calculating the wastewater fee the average wintertime water usage is used as a substitute for actual sewer flows during the entire year.
<i>Target Fund Balances:</i>	A minimum level fund balance established by the Board with the primary objective of a fund balance that maintains adequate resources to cope with contingencies.
<i>Water Acquisition Fee:</i>	A portion of the tap fee paid by developers prior to installation of the tap. The fee is designed to generate revenues to develop additional water resources such as acquisition of water rights, construction of storage reservoirs, and other associated projects.