PUBLIC WORKS
UTILITIES & OPERATIONS
DEPARTMENT
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Memorandum

Date:	May 17, 2023
To:	Utilities Commission
From:	Stan Gryczko, Director - Public Works Utilities & Operations Adrienne Heinig, Assistant to the Director Dawn Calciano, Conservation Coordinator
Subject:	Water Utility Fund, Water Supplies and Water Use Efficiency Legislation Update

Recommendation

Informational item.

1. Receive an update on the financial status of the City's Water Utility (collectively Funds 511, 512 and 513) for fiscal year 2021-2022; and
2. Receive an update on water supplies and upcoming water use efficiency legislation.

Background

Postponed Water Cost of Service Study - 2020

The Commission began the most recent Water Cost of Service Study in 2020. After a few months into the review of the financial status, it was clear that the water fund was healthy; while the working capital (or fund, or cash-in-hand) balance remained above the reserve target, more importantly the expenditures of the utility remained below the revenue receipts. With rate adjustments unlikely, it was recommended and the Commission agreed that the study be concluded with no action at the early stage, until the annual fund updates for the Water Utility indicated a rate adjustment would be necessary.

In the interim, staff continue to monitor the revenue and expenditures of the City's utilities, with no indication from the water utility of distress or imbalance. It is of note, and included in this update, that the revenue from customer water fees did drop, as would be anticipated during the prolonged drought experienced in California up until April of this year. The drop in revenue, however, was not significant to the utility.

The City's Water Utility 101, presented to the Utilities Commission updated in June 2022 has additional information on the structure and operations of the City's water system: Water Utility 101

Upcoming Considerations that May Impact Utility Costs

Water Use Efficiency Legislation

So far this year, the State has indicated that movement on water use efficiency legislation is a priority. Changes to legislation that would impact the cost of the utility operations will likely include additional reporting, monitoring and proactive maintenance requirements, however at this stage it is unclear exactly what the legislation might entail.

Update of Integrated Water Resources Study (IWRS)

Work to update the City's IWRS (last completed in 2013, prior to the introduction of surface water) is currently underway, which will help in discussions around prioritizing upcoming planning for the water system. The IWRS will provide a planning level look (including life-cycle costs) around either augmenting the potable water supply or bolstering the potable water supply available for consumption. Aquifer Storage and Recovery (ASR) is one example of a potential addition to this plan. In order to capture any recommended near-term capital improvements in the next cost of service study, staff would recommend holding off on the study start until the IWRS is complete (likely in the fall of this year).

Fund Update

This update is part of a regular series on the status of the city's Utility funds. The information presented includes a summary of the revenue and expenditures of the preceding fiscal year. For the water utility, there is no current fiscal model (as explained in the section above on the postponed study), so monitoring includes a comparison of expenditures and revenues to ensure there is balance. When a full study is once again completed, and the City has a forecast model for the utility fund, comparisons to the expectations in the model will also be made, along with the budget and actuals of the City's accounting.

The intent of the update is to give a snapshot of the status of the fund and highlight any outstanding issues, in between full cost-of-service studies.

The fund update presented in this report covers the City's Water Utility (Fund Nos. 511, 512 and 513, collectively the Water Fund). Each of the three funds serves a specific purpose - Fund 511 is the Operations and Maintenance fund, Fund 512 is the Capital Replacement Reserve, and Fund 513 is the Capital Expansion Reserve. These funds operate somewhat independently from each other with division revenue and expenditures based on the purpose of the fund. This review focuses on Fiscal Year (FY) 2021-2022, which covers July 2021 through June 2022.

Sources of Funds

Water Utility Fund revenues are collected from a number of sources, and each of the funds within the Water Fund has its own source of revenue:

- **Fund 511** receives the revenue for the water sales for both inside and outside the City ("outside" being water sales to County Service Areas (CSAs) like El Macero), fees and permits, interest on investments, reimbursements (for example, staff time spent on the ongoing project to connect North Davis Meadows to the city water system is reimbursable by the County), and sale of surplus materials.
- **Fund 512** receives the revenue from interest on investments, payments from agencies for water rights and reimbursements for shared Woodland-Davis Clean Water Agency (WDCWA) costs, and historically with reimbursements for expenditures related to State Revolving Fund (SRF) loans.
- **Fund 513** receives the revenue from interest from investments and water capacity fees.

Water Rates

Customer water utility rates (representing around 96% of the water utility revenue) have not been adjusted since the completion of the last Water Cost of Service Study, with the final adjustment of rates for that study occurring in January of 2019. The City's rate structure for water is highly volumetric, around 80% of the rate is based on water use, which provides an incentive for conservation. A volumetric rate is more vulnerable to external factors such as significant drops in planned water use, as with prolonged drought; and a volumetric rate can result in higher than anticipated revenues when water use increases.

In 2018, the City undertook a major project to replace the City's water meter stock, installing meters with Advanced Metering Infrastructure (AMI) that allow for refinement of data and ensure accuracy of the City's water billing. Tools to further aid water customers in managing their utility payments (including AquaHawk notices for continuous water use) have also been implemented. Currently there are a little over 8,000 registered users in AquaHawk (close to half of the City's active water connections are represented).

When comparing the projected revenue totals from the city budget to the actuals from FY 21/22, there are a few notes:

- Water sales includes revenue from City water customers, and water customers within County Service Areas (CSAs) including El Macero, Willowbank, and Davis Creek Mobile Home Park.

- On top of the usual revenue of fees & permits, the City received funding ($94,504.51) from the State Water Arrearage program addressing lost revenues during the COVID-19 pandemic.
- The City is required to report gains and losses with investments. Stock market instability in FY 2022 is demonstrated in the losses on investments included in the table.

FY 2021-2022 Revenue	BUDGET Projected	ACTUAL City Accounting
FUND 511		
Water Sales	$25,183,700	$23,742,096
Other Revenues	$59,000	$185,098
Interest from Investments	$180,000	($156,515)
511 Revenue	**$25,422,700**	**$23,770,679**
FUND 512		
Interest from Investments	$350,000	$0
Reimbursements	$48,000	$49,776
512 Revenue	**$398,000**	**$49,776**
Fund 513		
Interest from Investments	$30,000	($11,070)
Capacity Fees	$0	$951,503
513 Revenue	**$30,000**	**$940,433**
Total Revenue	**$25,850,700**	**$24,760,888**

Since the beginning of the State declared drought emergency (July 2021) to the end of FY 2022, the City saw an overall reduction in water production. In the months leading up to July 2021, the City had been seeing water use in the community increase, likely due to:

- Residual recovery in water consumption from previous drought
- Remaining COVID-19 pandemic shelter-in-place impacts
- Unprecedented heat waves, persistent drought conditions and adjusted irrigation timing

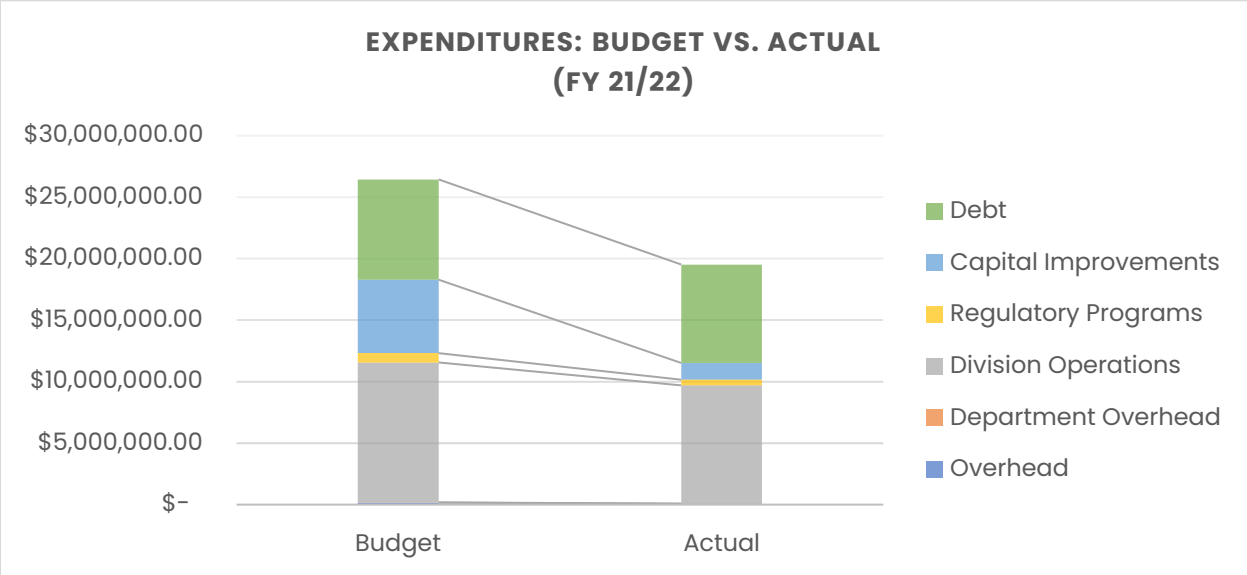
Prior to the start of FY 2022, significant drought conditions within California and surrounding states led Governor Newsom to proclaim multiple states of emergency, with the proclamation in October 2021 extending the emergency statewide. Additional orders in March 2022 required agencies to enact water shortage contingency plans, implemented water waste prohibitions, and reinforced the call for a 15% voluntary

reduction in water use. City Council proactively implemented Shortage Level 2 irrigation restrictions on sprinkler/spray irrigation use, and adopted an urgency ordinance enacting the state prohibitions on wasteful water use practices.

Starting in July 2021, water use within the City dropped from the previous year, however early 2022 saw an increase in water use reflecting the three driest months on record. While water use did drop again into spring and the beginning of FY 2023, the lack of a significant drop in revenue is likely due to the myriad of factors contributing to both water use increases and decreases throughout the year. It is also important to keep in mind that a number of the water use restrictions in place during the previous drought ultimately were adopted as permanent by the City, which makes deep water use reductions through volunteer efforts unlikely.

Uses of Funds (Expenditures)

Operations is the equipment, infrastructure and workforce necessary to operate and maintain the water system for the City of Davis. This consists of water production, distribution, programs, cross connection control, regulatory management, work or costs associated with the City's contribution to the surface water plant, regulatory requirements (water conservation and quality), and inter-department charges for other departments working on water associated activities (such as utility billing performed by Finance).



FY 2022 included many months of continued impacts from the COVID-19 pandemic, supply chain issues, staffing shortages, and other challenges. These challenges were anticipated as the City moved to resume "normal operations." While most deferred maintenance concerns have been addressed, postponed larger projects (put on hold at the onset of the COVID-19 pandemic and economic uncertainty of 2020), have taken

longer to resume. As stated in the last fund update at the beginning of 2022, the City will continue to see regular increases in expenditures before being able to return fully to "normal" operations.

Capital Improvement Projects
The largest difference between budgeted and actual expenditures, the Capital Improvement Projects, demonstrate the slow recovery process. While delays or changes within CIPs are not new, significant supply chain issues, design delays and staffing shortages did impact FY 2022 CIP projects.

The timing of projects can depend heavily on the available sources of funding, priority of projects, staff time to allocate to the administration and management of the projects, weather conditions, contractor bidding, and a number of other factors which can speed up, or slow down, the work.

Project Description		**BUDGET**	**ACTUAL**
8126	ADA Parking & Facility Compliance	$0	$30,000
8190	Water Main Rehabilitation	$1,860,621	$716,313
8224	Surface Water Pipeline Project	$1,369,360	$333,796
8278	Water Well Standby Generator	$1,198,696	$422
8290	Elevated Tank Replacement	$321,023	$215,380
8310	SCADA Water Plan	$1,130,844	$63,444
8329	Aquifer Storage and Recovery (ASR)	$90,000	$0
8336	GIS Master Plan	$5,970,544	$1,359,354

Budgeted Future CIP Expenditures

Project Description		**BUDGET FY 2022/2023**
8190	Water Main Rehabilitation	$1,000,000
8278	Water Well Standby Generator	$118,000
8290	Elevated Tank Replacement	$3,242,783

Debt

Of the city's four utility funds, the water fund currently carries the most obligations in terms of debt, and by consequence, a significant component of the rate calculations for water service is debt coverage requirements. In 2019, the I-Bank loan held by the Fund was paid off, and an additional loan from Wells Fargo was refinanced. The refinance is projected to save over $5 million dollars over the life of the loan.

Debt Description		**BUDGET**	**ACTUAL**
8844	WDCWA 2015 Water Revenue Bond	$1,350,018	$1,346,160
8845	SRF C-06-7873-110 WDCWA	$3,827,092	$3,827,092
8848	2018 Water Rev Ref. Bond	$1,477,227	$1,468,090
8853	SRF Local C-06-8019-110	$1,501,099	$1,364,039

Revenue Debt Coverage Requirements

For some of the City's water loans, there are clauses in the loan agreements that include requirements which must be met for the life of the loan, ostensibly to insure the loan will be repaid. Some loans require a year's worth of debt payments (or debt service, as it is called) to be kept at all times in a restricted account, and some require that the revenue for the utility being collected cover one times (1x) or higher the annual debt service. The Water Fund is required to show that the revenue coming in will cover at least 1.1x the annual debt service, which is a direct impact on the rate setting process.

Reserve

On January 28, 2020, the City Council adopted a formal reserve policy, which set the reserve calculation for the Water Utility Fund at the following:

- Three months of operational expenses (Operating Reserve)
- The average of the planned Capital Improvement Program (CIP) expenditures projected over the five-year cost of service study period (not to include debt financed projects) (Emergency Capital Reserve)
- 10% of annual operating revenue (Rate Stabilization Reserve)

The reserve calculations do not include the debt coverage requirements, but the debt and reserve are often added together as they are all restricted funds. Annually the reserve fund (plus debt) hovers between $16 to $17 million dollars.

Working Capital Balance/Fund Status

The working capital balance is the addition of the surplus operating revenue (any revenue left after all expenditures are accounted for) and unspent funds from prior fiscal years. The total sources of funds (revenue), minus the uses of funds (Operating, CIP, and debt) will give the remaining balance, which is added to any existing fund balance from the beginning of the year, to determine the end of year working capital/fund balance. The working capital balance of the Water Fund (the combined total of 511, 512 and 513) last calculated was around $38,000,000.

Currently, the Water Fund working capital balance is healthy. As the reserve target estimate (including debt coverage) is around $16.5 million on average, the working capital balance adequately covers and exceeds the reserve amount for the near-term.

Uses of Working Capital Balance Above the Reserve Totals

As discussed by the Commission in November 2020 (report is linked), there are two factors in consideration when looking at the "liquid" assets of the utility; working capital, and rate revenue. The focus around rate revenue should be on *balance*, and an independent discussion from the working capital amount. The balance between expenditures and revenue for any utility should always be maintained.

The important consideration for working capital, and possible uses for excess capital above the reserve/debt coverage targets, is that the funds are a one-time use. This would mean that funding ongoing rate adjustments with excess working capital is not sustainable. However, there are one-time actions that can be looked into that could have a substantial impact on the ongoing costs to water utility customers, including paying off or down existing debt, or funding specific priority large-scale capital projects.

City Water Supplies Update

The water supply conditions in Northern California have changed dramatically since June 2022 as shown in the charts below comparing the June 15, 2022 precipitation for the Northern Sierra to the March 20, 2023 precipitation for the Northern Sierra. In June 2022, precipitation was at 79% of average whereas as in March 2023, precipitation was 136% of average. With the storm events in late 2022 and early 2023, the drought status for many areas in the state has significantly improved. Yolo County moved from Extreme Drought in November 2022 to Moderate Drought in March 2023 to No Drought on April 13, 2023 according to the U.S. Drought Monitor.

Davis is currently anticipating receiving the full water allocation from WDCWA this summer. WDCWA continues to review options to ensure reliable water supplies throughout the year.

Water Use Efficiency Legislation Update

A number of regulations have been introduced at the state level, including short-term prohibitions on wasteful water use practices during drought which were implemented in early 2022. Long-term actions and regulations to aid in water use efficiency have been developed by the Department of Water Resources (DWR) and submitted to the State Water Resources Control Board (SWRCB). These regulations should be adopted within the next year.

Short-term Actions - Additional Drought Response by the State

The short-term emergency water waste actions implemented by the state in early 2022 remain in place. Yolo County, as of April 13, 2023, is no longer in drought according to the U.S. Drought Monitor. The Governor has lifted the voluntary 15% water use reduction and the requirement for local water agencies to enact Shortage Level 2 of their Water Shortage Contingency Plans.

The following short-term actions were enacted by the state and remain in place for the City of Davis:

- No more than incidental runoff from landscapes.
- Hoses used to wash motor vehicles must have a shut-off nozzle.
- No washing of sidewalks, driveways, buildings, structures, patios, parking lots, or other hard surfaced areas with potable water unless for health and human safety.
- No potable water-use for street cleaning or construction site preparation purposes unless no other method can be used to protect the health and safety of the public.
- No use of potable water for decorative fountains or the filling or topping-off of decorative lakes or ponds unless they have a pump that recirculates water.
- No watering during and four 48 hours after measurable rainfall of at least on fourth of one inch.
- No potable water may be used for the irrigation of turf on public street medians.
- Prohibits homeowners' associations or community service organizations from enforcing actions or imposing or threatening to impose fines for residents reducing or eliminating the watering of vegetation or lawns during a declared drought emergency.

Long-Term Planning - Urban Water Use Objective Update (Water Conservation Legislation)

In 2018, Governor Brown signed SB 606 and AB 1668, which together implement the framework of "Making Water Conservation a California Way of Life." The bills call for

creation of new urban water use efficiency standards for indoor use, outdoor use, and water lost to leaks, as well as any appropriate variances for unique local conditions. The proposed standards have been developed by DWR and submitted to SWRCB. SWRCB plans to adopt these standards in Fall 2023. Each urban retail water agency will annually, beginning in 2024, calculate and report its water use objective. Urban water suppliers must achieve their urban water use objective by Jan 1, 2027 or may be required by the State Water Board to enact policies and projects that result in additional water savings.

Additional Information on Water Conservation and Efficiency Statutes

Prohibition on Irrigation of Non-Functional Turf
Legislation has been recently introduced regarding the use of potable water for irrigating non-functional turf. Currently, the use of potable water to irrigate non-functional turf on commercial, industrial and institutional properties (CII) is prohibited under the emergency state water restrictions. This prohibition is effective until June 2023.

Assembly Bill 1572 (introduced by Friedman, 2023) would prohibit the use of potable water for irrigating non-functional turf on CII and multi-family residential properties permanently. Friedman has also introduced a spot bill to add a definition of non-functional turf to the California Water Code. The timing of the prohibitions varies depending upon the type of property following the proposed schedule below:

- January 1, 2027 for institutional properties
- January 1, 2028 for commercial and industrial properties
- January 1, 2029 for multi-family residential properties and all properties of homeowners' associations and common interest developments (excluding the residences of these entities' members)
- January 1, 2030 for multi-family residential affordable housing properties and institutional properties in a disadvantaged community

Shifting Focus of Water Messaging - Beyond the Drought

Moving into the spring and summer of 2023, Environmental Resource Division staff are planning to shift the messaging from drought to planning for more extreme weather patterns and long-term water use efficiency. With the longer periods of drought and more extreme rain/flooding events, conservation is essential year-round and from year-to-year, whether wet or dry. Managing water resources wisely and only using water as needed is essential along with messaging encouraging the community to maintain water conservation reductions and community efforts.

Staff plan to create social media posts, website content and e-newsletter content that aligns with the State Save Our Water Program new messaging of “Conserve Water. Rain or Shine.” Staff will continue our regular water conservation outreach also including press releases, ads in the Davis Enterprise, the city’s website, the Greener Davis e-newsletter (including special editions of “Water News”), Greener Davis social media posts (Facebook and Instagram) and utility bill inserts.