



**TUALATIN VALLEY**  
WATER DISTRICT

## TVWD BOARD OF COMMISSIONERS

President Todd Sanders, PhD | Vice President Jim Duggan, PE  
Treasurer Bernice Bagnall | Secretary Jim Doane, PE | Acting Secretary Dick Schmidt

# Board Meeting Agenda

May 18, 2022

### EXECUTIVE SESSION – 5:30 PM – MICROSOFT TEAMS MEETING\*

An executive session of the Board is called under ORS 192.660(2)(f) to consider information or records that are exempt by law from public inspection.

### REGULAR SESSION – 6:00 PM – MICROSOFT TEAMS MEETING\*

#### CALL TO ORDER

#### REPORTS BY THE CHIEF EXECUTIVE OFFICER AND MANAGEMENT STAFF

#### COMMISSIONER COMMUNICATIONS

- A. Reports of meetings attended
- B. Topics to be raised by the Commissioners

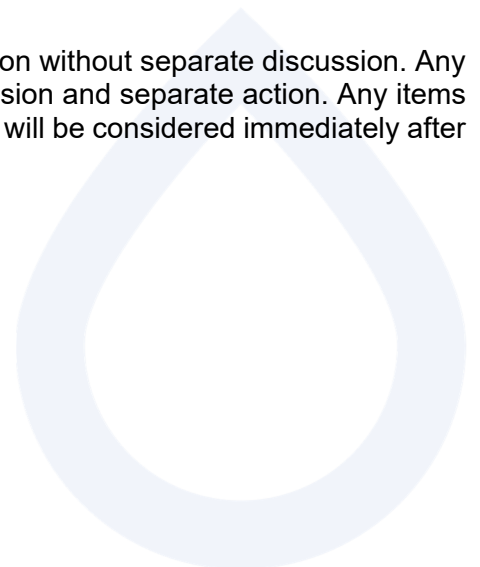
#### PUBLIC COMMENT

This time is set aside for persons wishing to address the Board on items on the Consent Agenda and matters not on the agenda. Additional public comment will be invited on agenda items as they are presented. Each person is limited to five minutes, unless an extension is granted by the Board. Should three or more people testify on the same topic, each person will be limited to three minutes.

#### 1. CONSENT AGENDA

These items are considered to be routine and may be approved in one motion without separate discussion. Any Board members may request that an item be removed by motion for discussion and separate action. Any items requested to be removed from the Consent Agenda for separate discussion will be considered immediately after the Board has approved those items which do not require discussion.

- A. Approve the April 20, 2022, regular meeting minutes.
- B. Approve the May 3, 2022, work session minutes.



- C. Adopt Resolution 05-22, a resolution authorizing the Chief Executive Officer to extend the audit services agreement with Moss Adams LLP for two additional years.

## 2. BUSINESS AGENDA

- A. Consider adopting Resolution 06-22, a resolution approving the Intergovernmental Agreement Between Tualatin Valley Water District and the City of Beaverton for System Interconnection at SW Kemmer Road, to allow for providing reliable water service to present and future customers in the event of an emergency or planned maintenance of pumping facilities. *Staff Report – Nick Augustus and Clark Balfour*
- B. Consider adopting the Rate Advisory Committee Charter. *Staff Report – Andrea Watson, Paul Matthews*
- C. Consider adopting Resolution 07-22, a resolution approving the District’s 2022-23 Financial Plan. *Staff Report – Paul Matthews*
- D. Consider adopting Resolution 08-22, a resolution establishing the cost-of-living adjustment (COLA) for employee compensation. *Staff Report – Paul Matthews*

## 3. INFORMATIONAL PRESENTATION

- A Customer Information System (CIS) Implementation Update. *Staff Report – Andrew Carlstrom*

## ADJOURNMENT

\*To slow the spread of COVID-19, this meeting is only available via phone or the web. It will not be held at a physical location. If you wish to attend, please email [debbie.carper@tvwd.org](mailto:debbie.carper@tvwd.org) or call 503-848-3014 by 4:30 p.m. on May 18, 2022.

The meeting is accessible to persons with disabilities. A request for an interpreter for the hearing impaired or for other accommodations for persons with disabilities should be made at least 48 hours before the meeting to the contact listed above.

For online meeting information, Commissioner bios and more, visit [tvwd.org](http://tvwd.org).





**TUALATIN VALLEY**  
WATER DISTRICT

**DRAFT**

# Board Meeting Minutes

April 20, 2022

## REGULAR SESSION – 6:05 PM

### CALL TO ORDER

Commissioners Present: Bernice Bagnall; Jim Doane, PE; Jim Duggan, PE; Todd Sanders; Dick Schmidt

Staff Present: Tom Hickmann, PE, Chief Executive Officer; Clark Balfour, General Counsel; Paul Matthews, Chief Financial Officer; Joe Healy, Senior Management Analyst; Carrie Pak, PE, Chief Engineer; Dave Kraska, PE, Water Supply Program Director; Joelle Bennett, PE, Water Supply Program Assistant Director; Tim Boylan, IT Services Director; Andrew Carlstrom, Customer Service Manager; Andrea Watson, Communications and Public Affairs Supervisor; Debbie Carper, District Recorder

### REPORTS BY THE CHIEF EXECUTIVE OFFICER AND MANAGEMENT STAFF

Mr. Hickmann reported on Portland *Cryptosporidium* testing results, gave a status update on the Asset Management Project and announced the upcoming Talkin' Water presentation on water efficient irrigation on May 9 (see attached presentation).

Mr. Kraska gave the safety moment on medication safety, specifically on protecting children.

Mr. Kraska gave the department report on preparing for successful Willamette Water Supply System operations, including integration with existing water systems, commissioning and startup (see attached presentation).

### COMMISSIONER COMMUNICATIONS

#### A. Reports of meetings attended

Commissioners described and submitted a list of recently attended meetings (see attached forms).

#### B. Topics to be raised by the Commissioners

There were none.

### PUBLIC COMMENT

There was none.

### 1. CONSENT AGENDA

A. Approve the March 16, 2022, regular meeting minutes.

B. Approve the April 5, 2022, work session minutes.



Motion was made by Duggan, seconded by Schmidt, to approve the Consent Agenda as presented. The motion passed unanimously with Bagnall, Doane, Duggan, Sanders and Schmidt voting in favor.

## 2. BUSINESS AGENDA

- A. Consider providing staff direction to update the District's Financial Plan and refer the question of rate increase frequency to the Rate Advisory Committee. *Staff Report – Paul Matthews*

Mr. Matthews provided information on rate adoption strategies as well as potential focus areas to include in the draft Rate Advisory Committee (RAC) charter (see attached presentation).

Commissioners expressed a desire to act as soon as possible to respond to funding shortfalls as well as to communicate to customers that projected costs are moving targets as economic conditions fluctuate.

Motion was made by Bagnall, seconded by Doane, to direct management to prepare the Financial Plan based on Strategy 2B and present the Financial Plan for approval at the Board's regular meeting on May 18, 2022. The motion passed unanimously with Bagnall, Doane, Duggan, Sanders and Schmidt voting in favor.

Commissioners indicated they want the RAC to focus on rate affordability rather than specifically rate adjustment frequency.

## 3. INFORMATIONAL PRESENTATION

- A Customer Information System (CIS) Implementation Update. *Staff Report – Andrew Carlstrom*

Mr. Carlstrom reviewed the CIS project purpose, gave an overview of the customer portal and described the customer communications plan (see attached presentation).

In response to a question, he said the customer portal will be available in Spanish.

## ADJOURNMENT

There being no further business, President Sanders adjourned the meeting at 7:10 p.m.

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Todd Sanders, President

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Jim Doane, Secretary





## PORTLAND CRYPTOSPORIDIUM RESULTS

For the month of March 2022, the Portland Water Bureau reported four *Cryptosporidium* oocyst detections in water samples collected from the Bull Run Headworks. Portland Water Bureau will continue increased sampling four times per week until there are at least three weeks without any detections. The Oregon Health Authority has determined that the public does not need to take additional protections at this time. Complete results of Portland's *Cryptosporidium* monitoring are posted on the City's website.

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## ASSET MANAGEMENT PROJECT MILESTONE

The Asset Management Project achieved the milestone of completing the draft Roadmap. The draft will be under staff and leadership review for a few weeks.

The vision statement for the project is to: Continue to develop, implement, streamline and sustain an Asset Management program to align with the District's mission, vision and values.

Asset management provides a systematic process for onboarding, grading and managing resources to maximize efficiency and effectiveness as well as report on service levels and plan for future investments. The roadmap will set in motion a work plan for complete foundational projects in the next two years.

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## MAY TALKIN' WATER

TVWD's next virtual forum will be held noon, May 9 and feature water efficient irrigation. Pre-registration is not required for this event. You can find the link at: <https://www.tvwd.org/district/page/talkin-water>.

## Willamette Water Supply *Our Reliable Water*

### WWSP Department Report: Preparing for Successful Operations

April 20, 2022

## Preparing for Successful Operations

- We've been preparing for all aspects of the transition for years
  - Ongoing operations planning began in 2017
  - Water supply integration planning began in 2018
  - Commissioning and startup planning began in 2019
- A smooth transition from construction to operations is critical to realizing the benefits of our investment

Willamette Water Supply  
*Our Reliable Water*

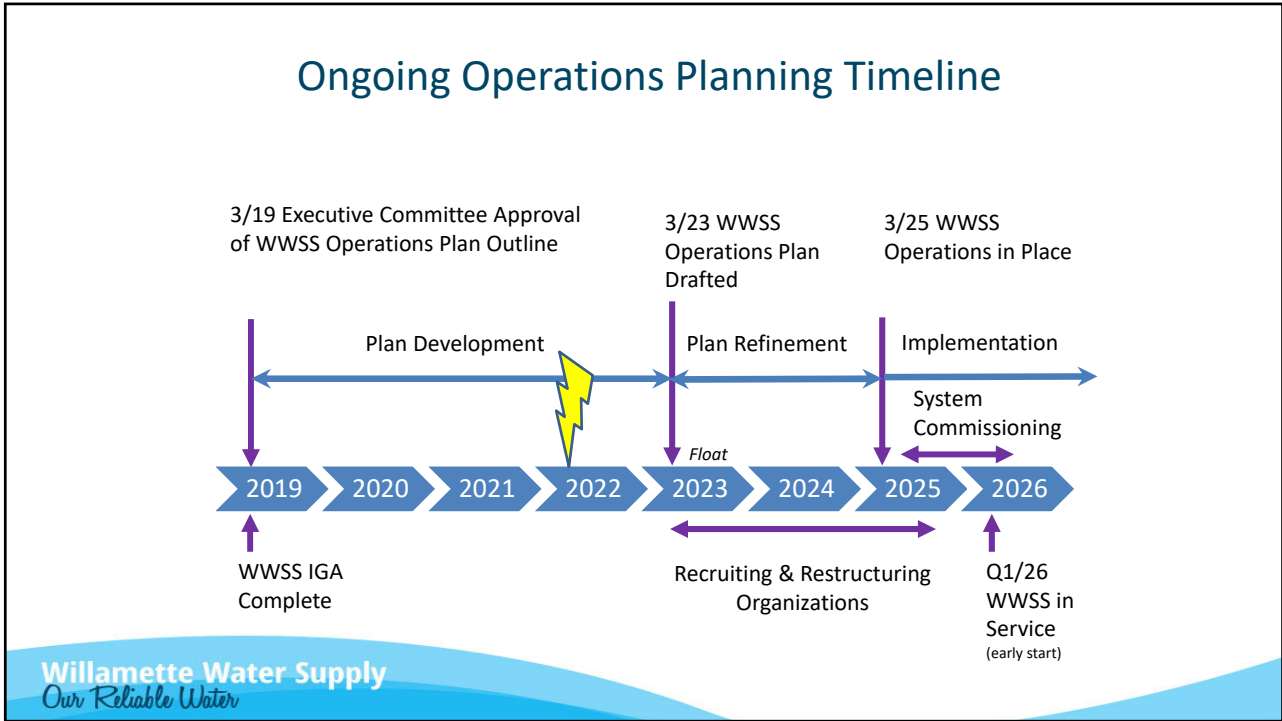
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## ONGOING OPERATIONS PLANNING

Willamette Water Supply  
*Our Reliable Water*

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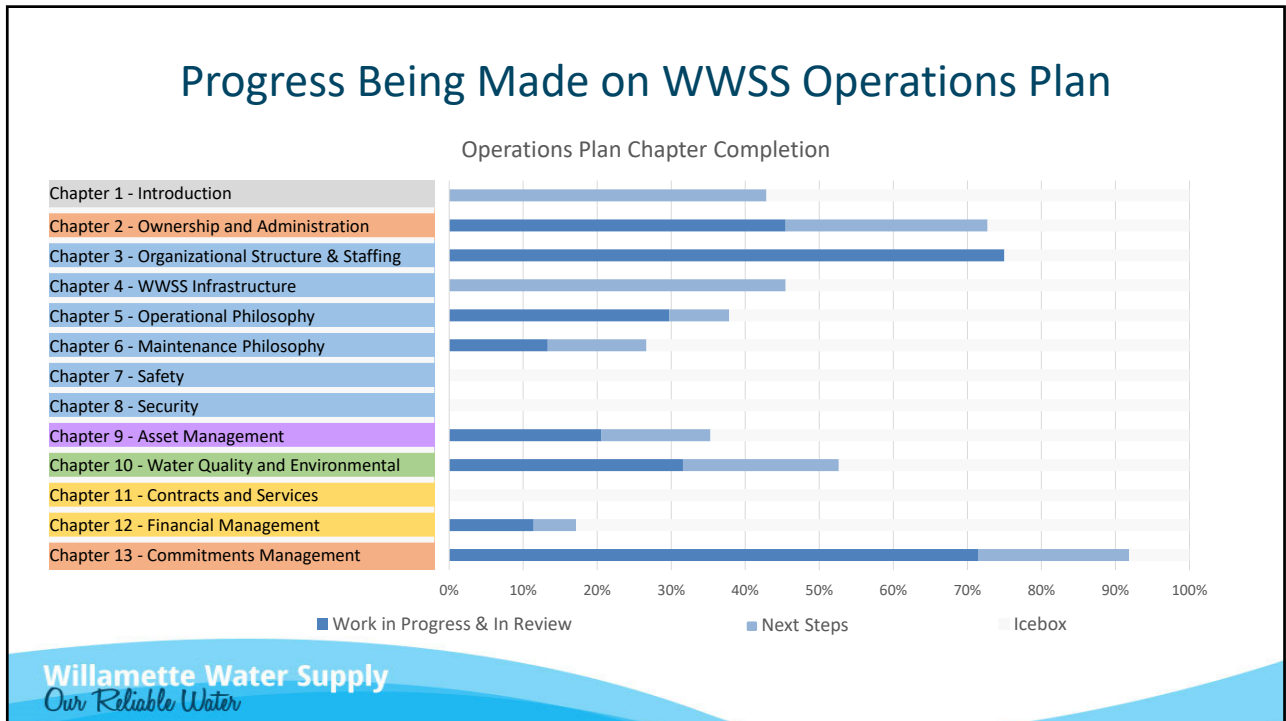


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## WATER SUPPLY INTEGRATION PLANNING

Willamette Water Supply  
Our Reliable Water

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## What is the Water Supply Integration Project?

- WSI plans the integration of the WWSS
  - Prepare existing systems to receive water from the WWSS
  - Integrated with the WTP\_1.0 design project
  - Identify potential need for distribution system modifications
  - Protect public health through and after transition to new supply
- Uneventful integration is key to overall WWSS success

Metals  
Accumulation and  
Release

Corrosion Control  
Optimization

Distribution  
System BMPs

Secondary  
Disinfection  
Studies

Treatment  
Evaluations

Discolored Water  
Studies

Blending and  
Source  
Changeover  
Studies

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Our Reliable Water

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## Water Supply Integration Project Goals

- Establish finished water quality
- Assess compatibility and blending
- Define system preparation needs
- Develop the integration schedule

Incorporate the new water supply seamlessly and safely

Outside Experts Inform Integration Plan

- WWSP's Subject Matter Experts
- Confluence Engineering Group
- Blue Ribbon Panels

**Willamette Water Supply**  
*Our Reliable Water*

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## Water Supply Integration Process

We are here

**Willamette Water Supply**  
*Our Reliable Water*

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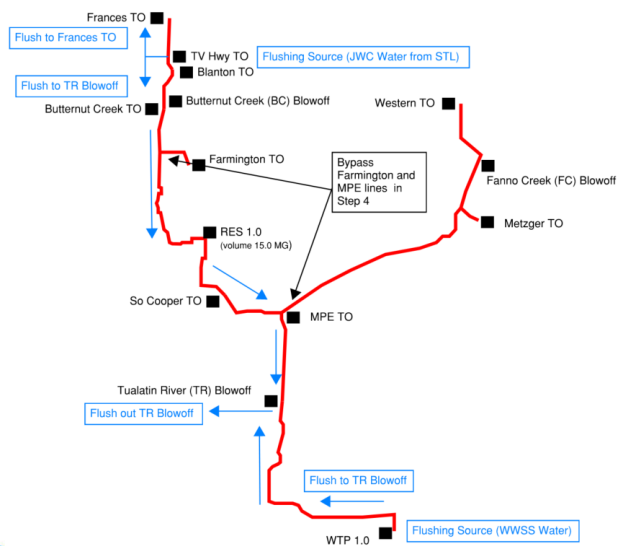


# COMMISSIONING AND STARTUP PLANNING

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## Commissioning and Starting Up the WWSS

- Follows completion of all WWSS elements
- Addresses possible water quality changes as water flows through the new system
- Requires the ability to send produced water to waste in a safe manner



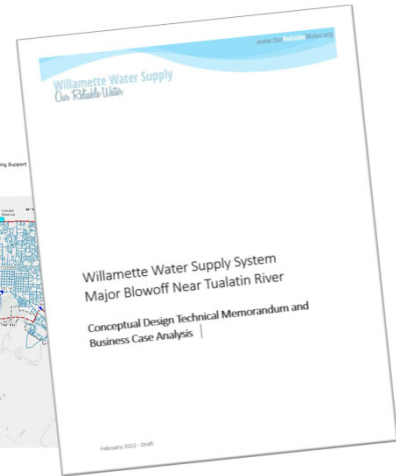
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## Commissioning and Startup Planning

- Recent Accomplishments
  - Completed modeling of JWC system and determined viability for supply of flushing water from STL without portable pumping
  - Completed TM on Tualatin River blowoff location selection
  - Conducted workshop on Tualatin River blowoff outfall conceptual design
- Current Focus Areas
  - Developing conceptual drawings of major blowoff site for permit modification
  - Revising TM on finished water transmission system conceptual CSU plan

Willamette Water Supply Program On-Call Task Order 3 Modeling Support  
2022 Commissioning Hydraulic Analysis - 02/27

Figure 1. Modeled System



Willamette Water Supply  
*Our Reliable Water*

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## Preparing for Successful WWSS Startup and Operations

- Requires years of advanced planning by multidisciplinary team
- Benefits from dedicated involvement of TVWD and Hillsboro staff
- Is critical to the successful completion of the Willamette Water Supply Program and successful operation of the Willamette Water Supply System



Willamette Water Supply  
*Our Reliable Water*

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# Update on Financial Strategies

*Board Regular Meeting*

**Paul Matthews, Chief Financial Officer**

April 20, 2022



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## Key Questions

### Question 1

- Should TVWD adjust the already-adopted November 2022 rates?

### Question 2

- Should the RAC charter include reviewing the frequency of rate adjustments?



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## Question 1: Should TVWD adjust the already-adopted November 2022 rates?

- Deciding **No** is opting for the *Status Quo*. This is “Strategy 1” in following slides.
  - Under this strategy, the Board would take no action regarding the November 2022 rate adjustment of 9.5%, adopted in September 2021 during TVWD’s biennial rate process.
  
- A **Yes** decision is moving to act now (“Strategy 2”).
  - By implementing this option, the Board would ask staff to begin a rate process to revise the adopted November 2022 rates based, in part, on the considerations described on the next slide.

## PRESENT ESTIMATES (Refined and organized by Strategy)

Comparison of Annual Rate Adjustments by Scenario

| Fiscal Year<br>Month | 2023        |             | 2024        |             | 2025        |             | Cumulative<br>Current to<br>May 2025 |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------------------------|
|                      | Nov<br>2022 | May<br>2023 | Nov<br>2023 | May<br>2024 | Nov<br>2024 | May<br>2025 |                                      |
| <b>Strategy 1</b>    |             |             |             |             |             |             |                                      |
| Option 1A            | 9.5%        |             | 18.8%       |             | 18.8%       |             | 54.5%                                |
| Option 1B            | 9.5%        | 7.1%        | 7.1%        | 7.1%        | 7.1%        | 7.1%        | 54.3%                                |
| <b>Strategy 2</b>    |             |             |             |             |             |             |                                      |
| Option 2A            | 14.25%      |             | 14.25%      |             | 14.25%      |             | 49.1%                                |
| Option 2B            | 14.25%      | 5.5%        | 5.5%        | 5.5%        | 5.5%        | 5.5%        | 49.3%                                |

**Question 1**

Typical Monthly Bill Comparison

|                   |         |                    |         |                    |                    |                    |
|-------------------|---------|--------------------|---------|--------------------|--------------------|--------------------|
| <b>Strategy 1</b> |         |                    |         |                    |                    |                    |
| Option 1A         | \$67.48 | <del>\$67.48</del> | \$80.17 | <del>\$80.17</del> | <b>\$95.24</b>     | <del>\$95.24</del> |
| Option 1B         | \$67.48 | \$72.30            | \$77.43 | \$82.93            | <del>\$88.82</del> | <b>\$95.12</b>     |
| <b>Strategy 2</b> |         |                    |         |                    |                    |                    |
| Option 2A         | \$70.44 | <del>\$70.44</del> | \$80.47 | <del>\$80.47</del> | <b>\$91.94</b>     | <del>\$91.94</del> |
| Option 2B         | \$70.44 | \$74.31            | \$78.40 | \$82.71            | <del>\$87.26</del> | <b>\$92.06</b>     |

Approximately \$3/month savings with Strategy 2 (i.e., beg. May 2025)

\$0.12 difference between options

\$0.12 difference between options

## Adjust Already-Adopted November 2022 Rates

- Pros
  - More transparent by updating customers sooner
  - Improves the District's financial health and has lowest overall rate increase
  - Helps protect the District's credit rating and may maintain lower cost to borrow funds
  - Reduces the potential for higher rate increases in the future should inflation accelerate
- Cons
  - Immediate impact on customers
  - Perception of changing an already-adopted rate
  - Currently, only the Customer Emergency Assistance Program available

## Question 2: Should the RAC charter include reviewing the frequency of rate adjustments?

- Pros
  - Include a broader perspective for recommendation to the Board
  - Provides public support for Board action
- Cons
  - Risk of not receiving clear recommendation from the RAC
  - Dilute RAC's attention from other critical rate policies (e.g., affordability programs)

## Proposed Motion – Question 1

- I move that the Board of Commissioners direct management to prepare the Financial Plan based on Strategy \_\_\_ and present the Financial Plan for approval at the Board’s regular meeting on May 18, 2022.

## Proposed Motion – Question 2

- I move that the Board of Commissioners direct management to prepare the Rate Advisory Committee Charter to include the question of rate adjustment frequency and present the Charter for adoption at the Board’s regular meeting on May 18, 2022.

## Next Steps

- Seek approval of Financial Plan at Board’s regular meeting in May.
- Other actions as directed.



## Update on Financial Performance

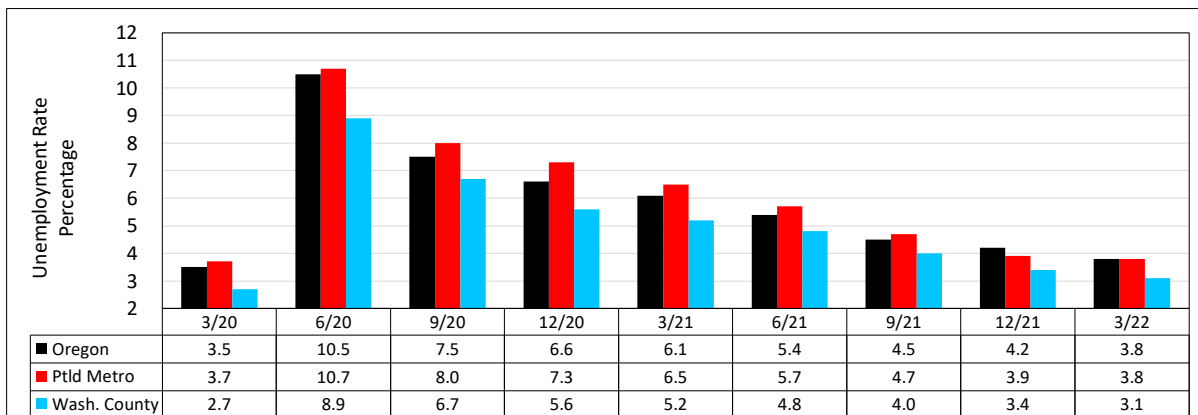
**Paul L. Matthews**  
Chief Financial Officer

## Overview of Tonight's Update

### Updates on:

- Update on unemployment rates
- TVWD's Financial Performance
  - Revenue
  - Collections
  - Expenses

## Labor Market Appears to be Calm





## Monitoring TVWD's Financial Performance



### Revenue

- Impact on future water sales



### Collections

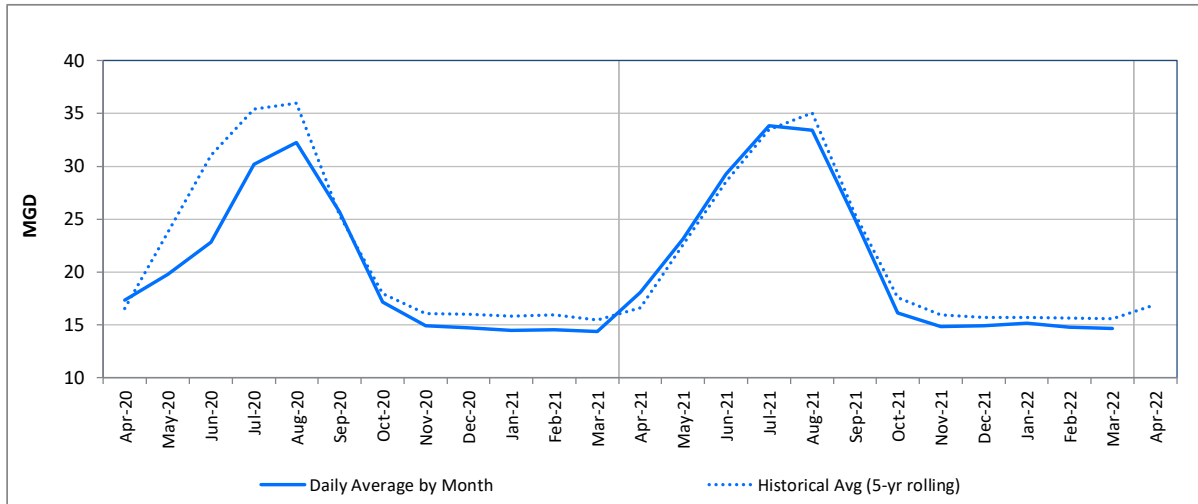
- Capacity for customers to pay their water bills

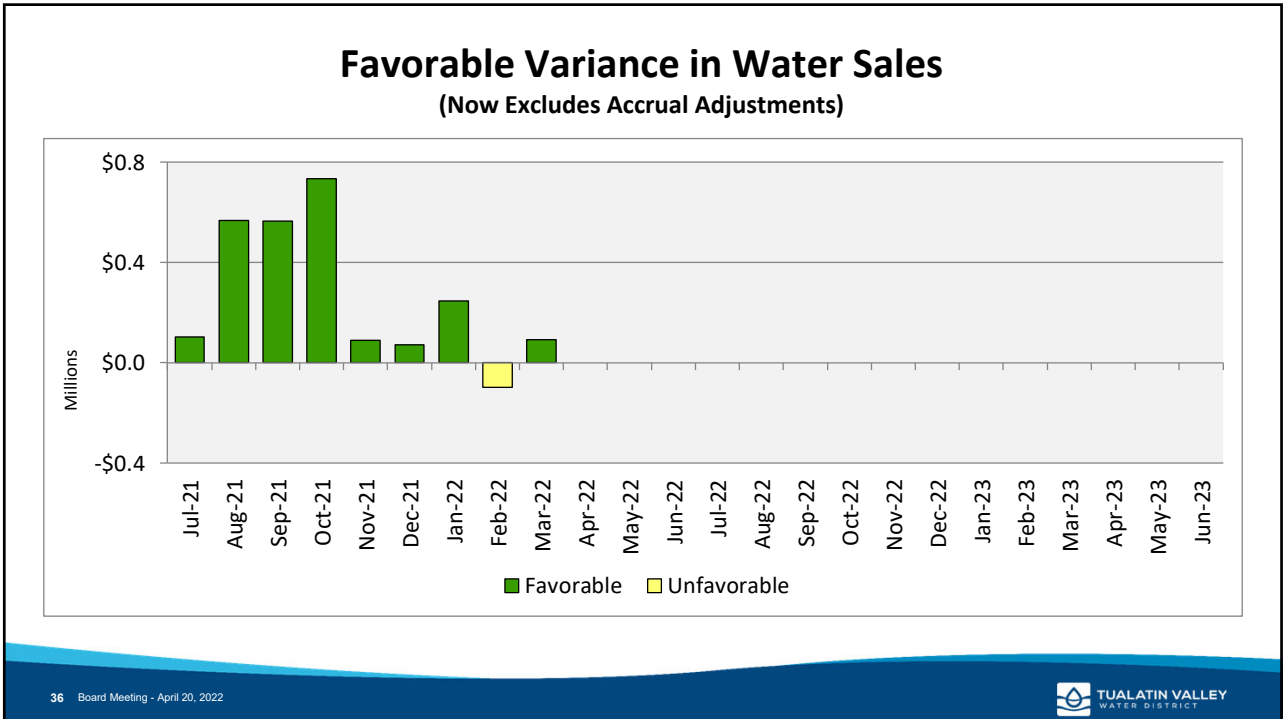
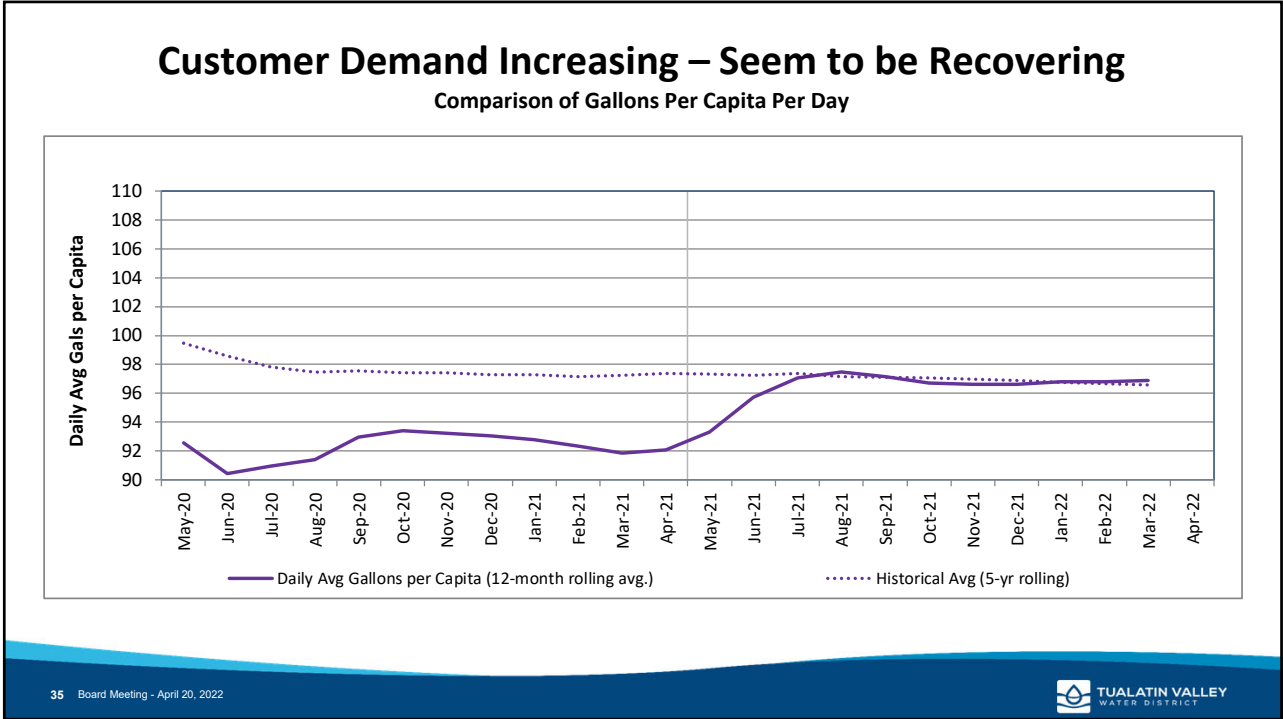


### Expenses

- Effect on budget to respond to COVID-19

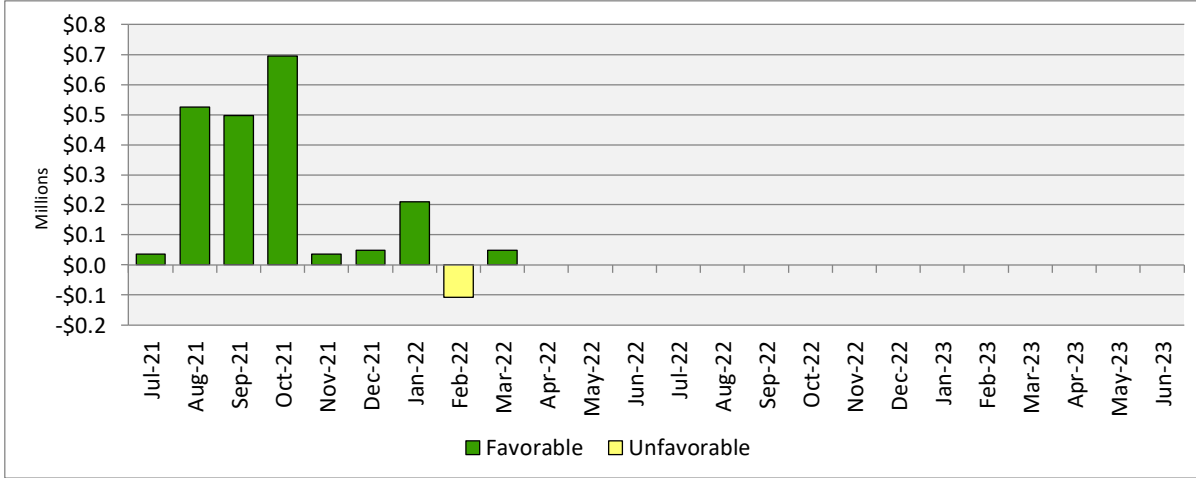
## Water Deliveries Close to 5-Year Average





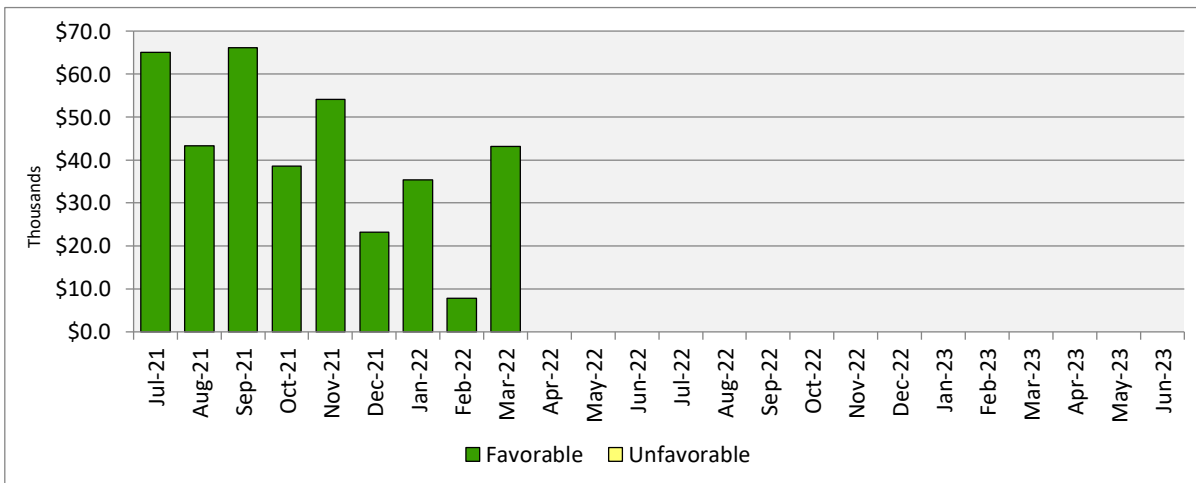
### Favorable Variance in Volume Water Sales Revenue

(Now Excludes Accrual Adjustments)

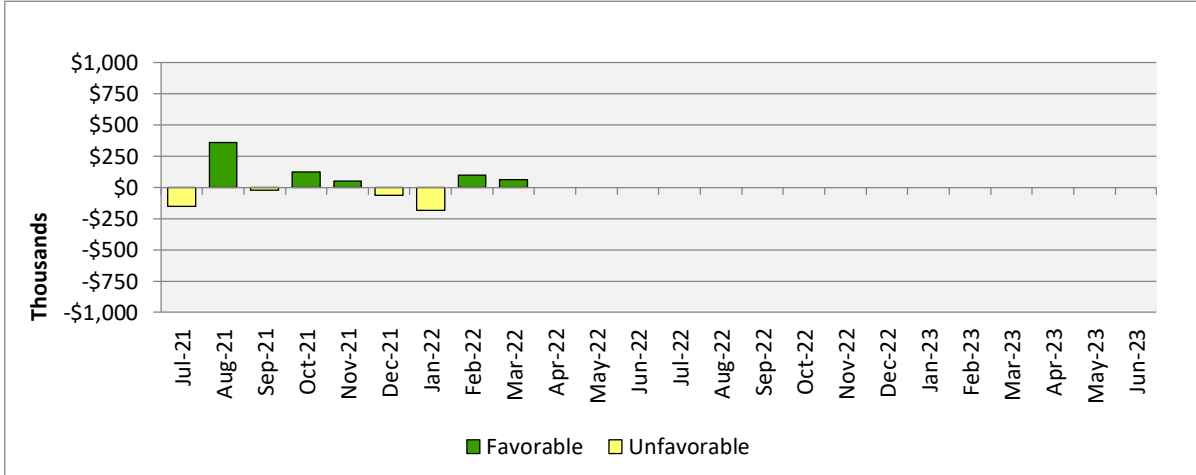


### Favorable Variance in Fixed Charge Revenue

(Now Excludes Accrual Adjustments)



### Favorable Variance in System Development Charge



### Revenue Trends by Customer Class

#### Revenue

- Now reporting on a cash basis – Excluding accrual adjustments
- Slight favorable variances in volume charges

#### Measurement Challenges

- COVID-19’s impact on the economy
- Bimonthly billing cycles
- Unbalanced billing cycles by month
- Limited data for fiscal year

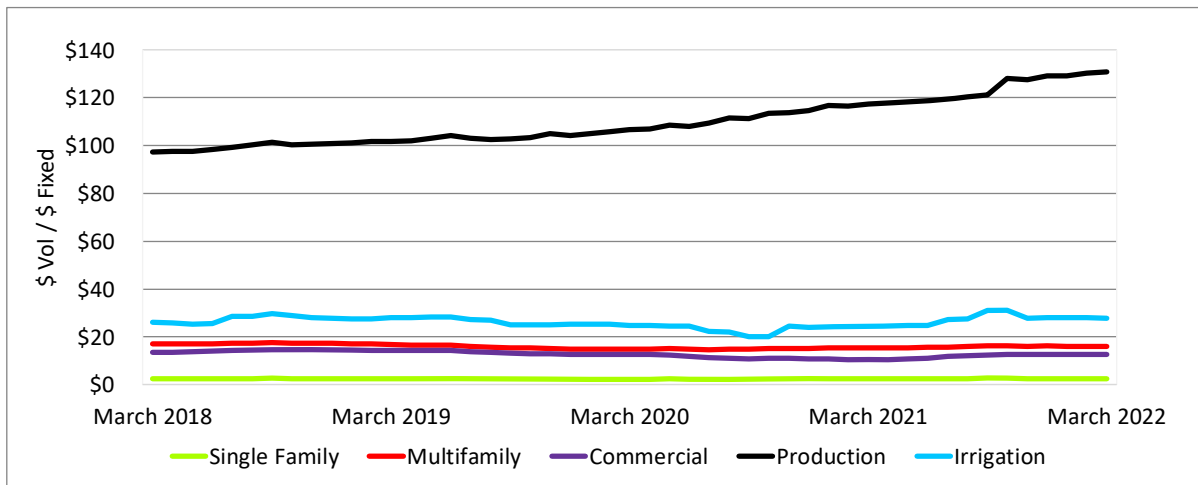
### Metric to Assess Trends

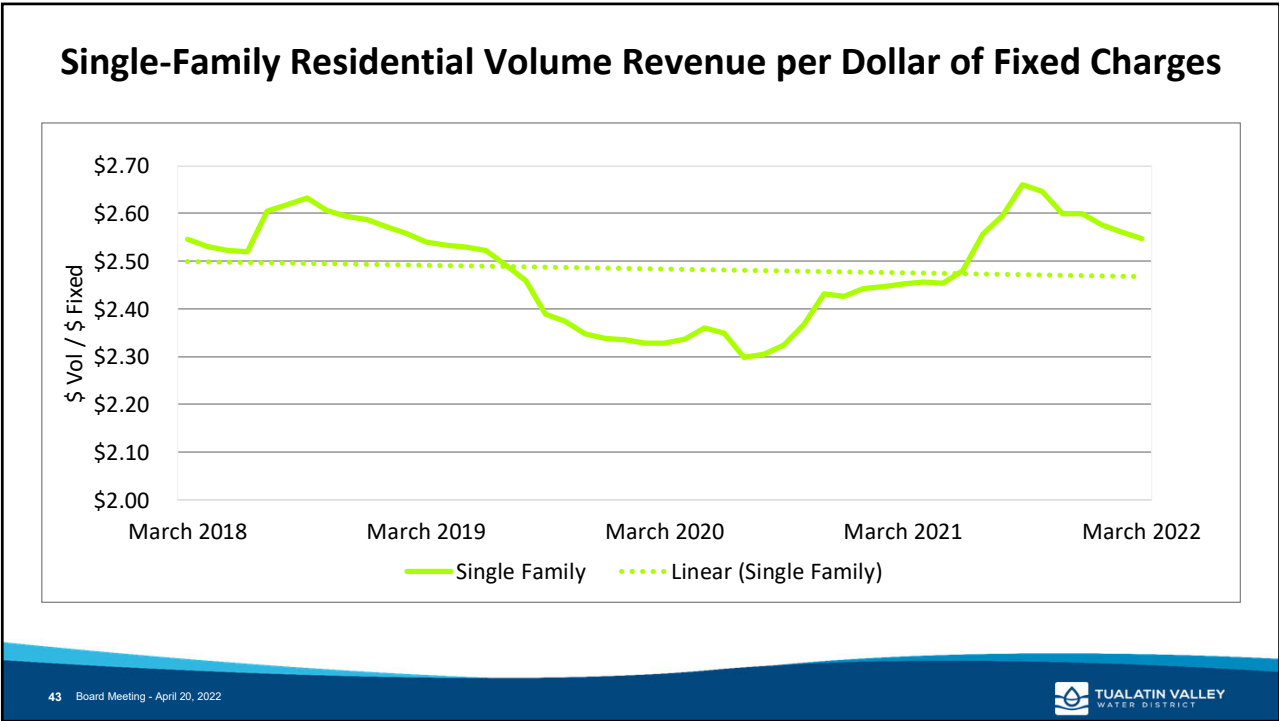
#### Approach

- Volume-based revenue per dollar of fixed charges
- Reduces the impact of seasonal variability in revenue
- Addresses the challenges of unbalanced billing cycles
- Provides meaningful trend data over time

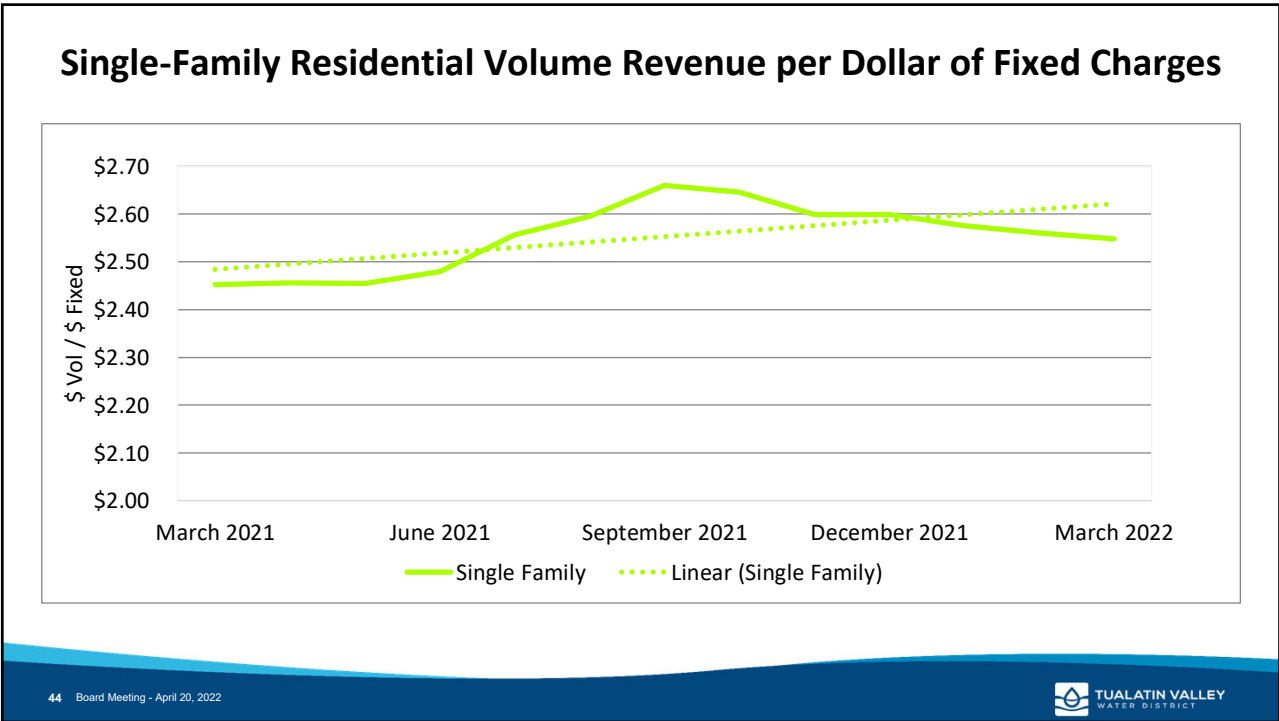
### Long-Term Trend By Customer Class

Volume Revenue per Dollar of Fixed Revenue



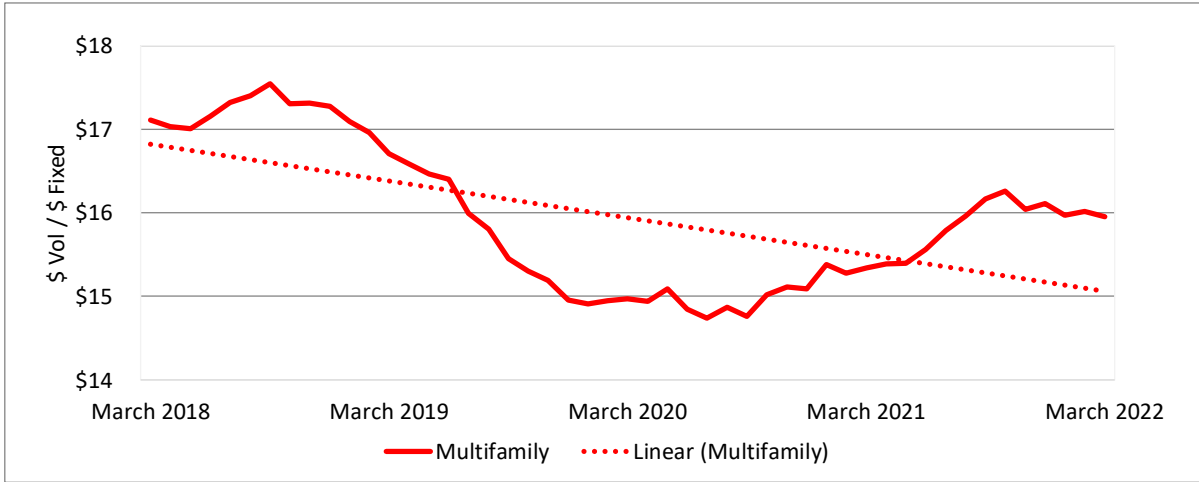


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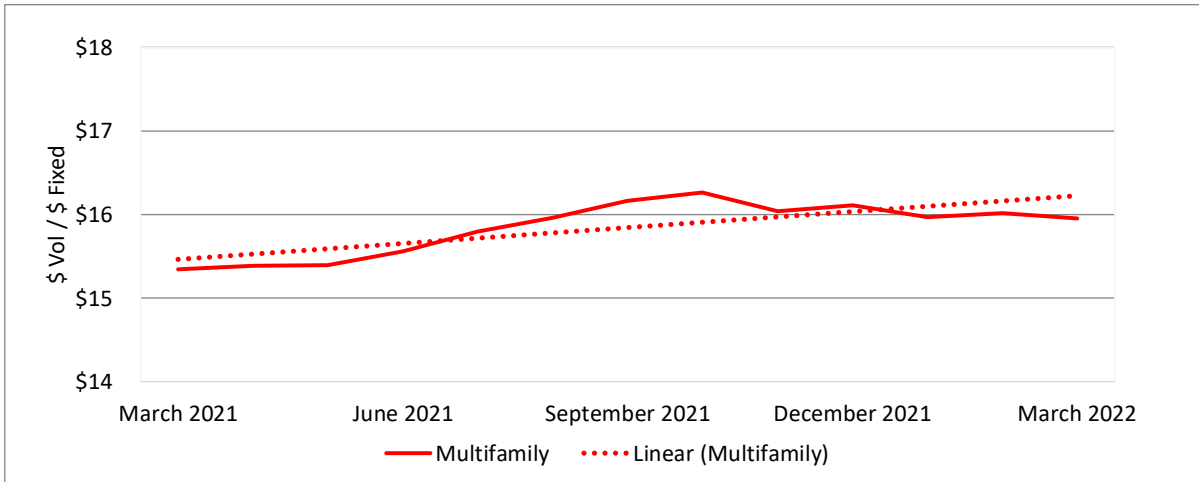


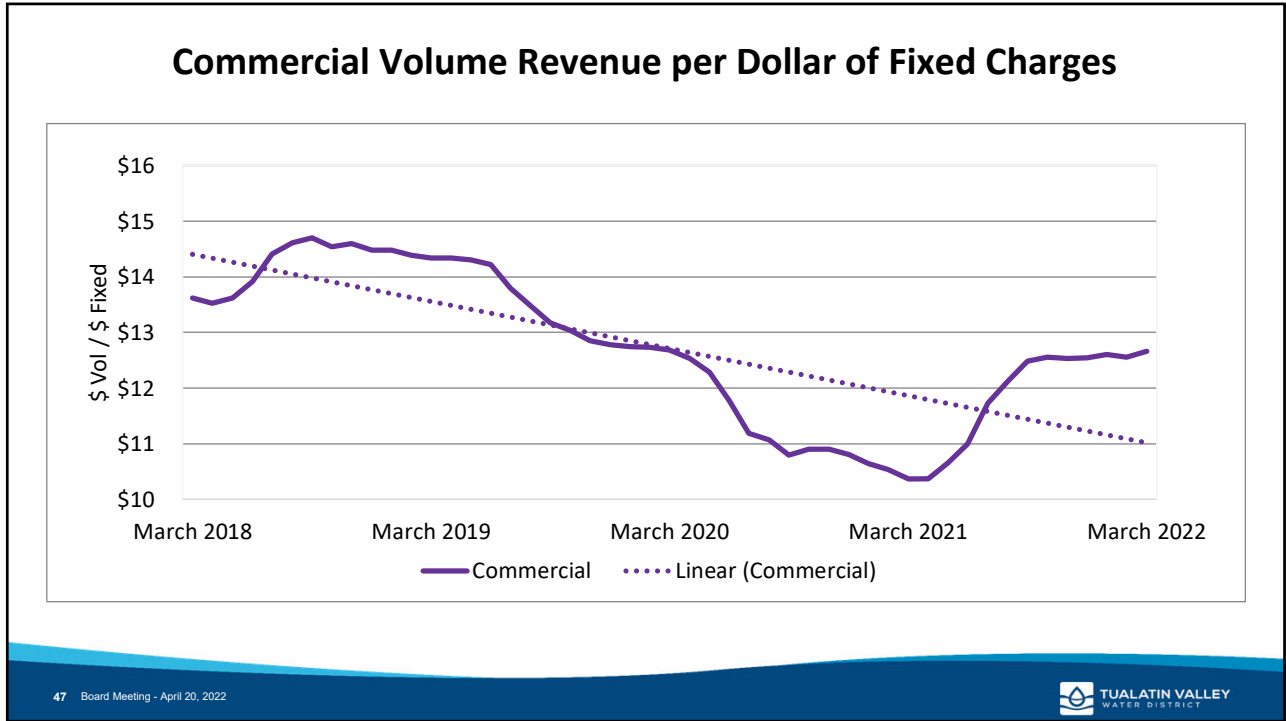
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### Multifamily Residential Volume Revenue per Dollar of Fixed Charges

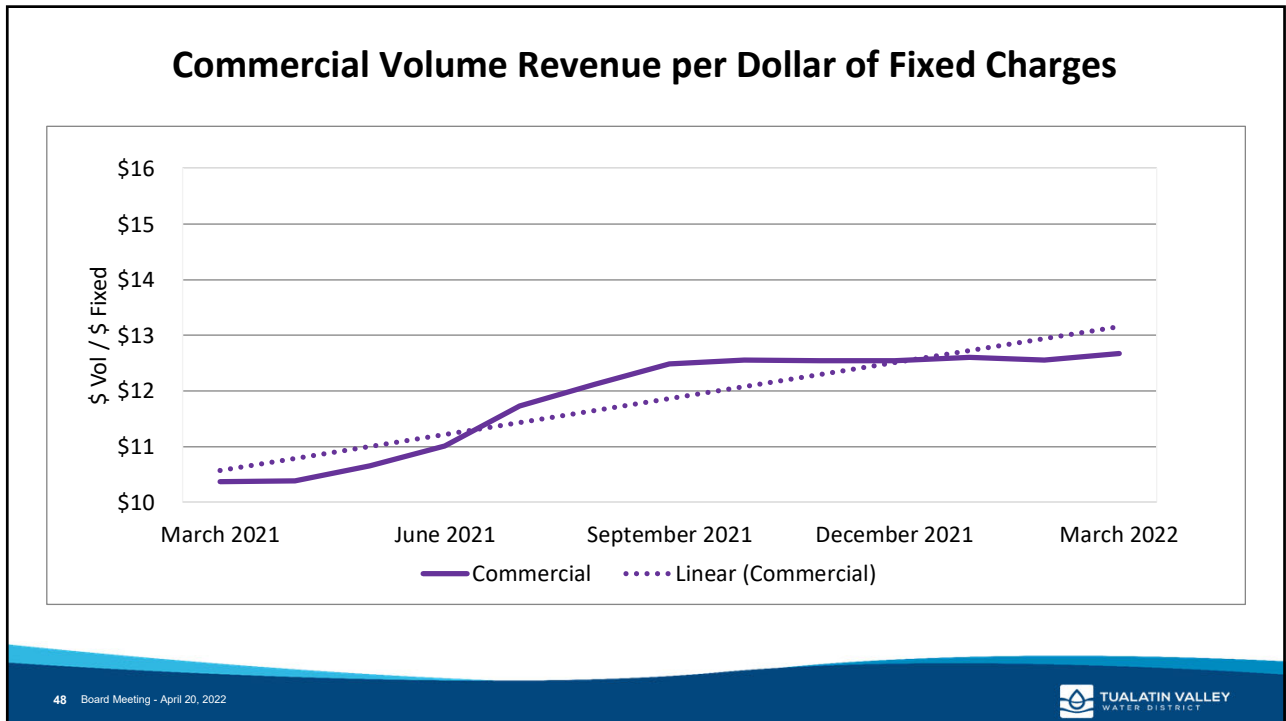


### Multifamily Residential Volume Revenue per Dollar of Fixed Charges





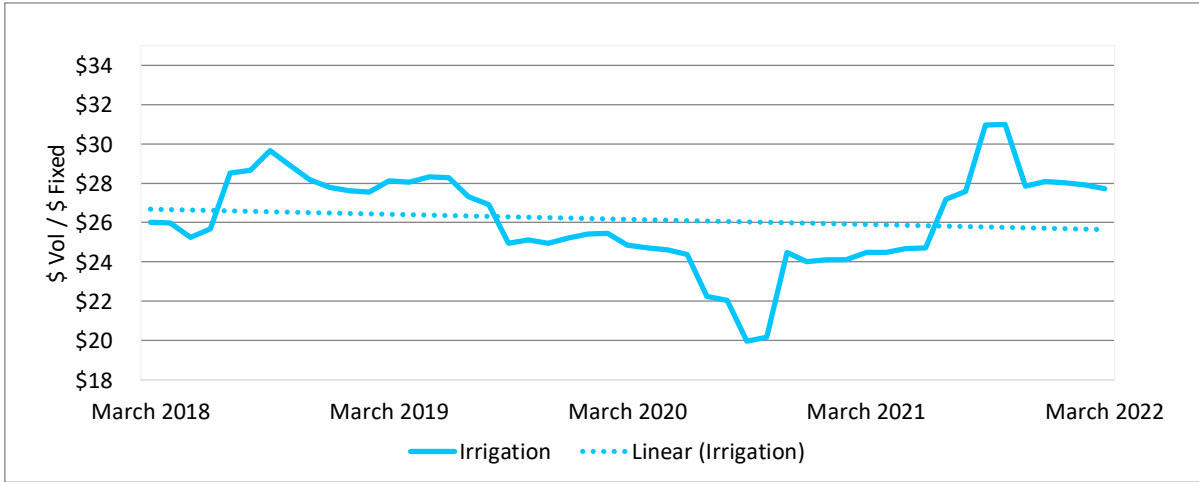
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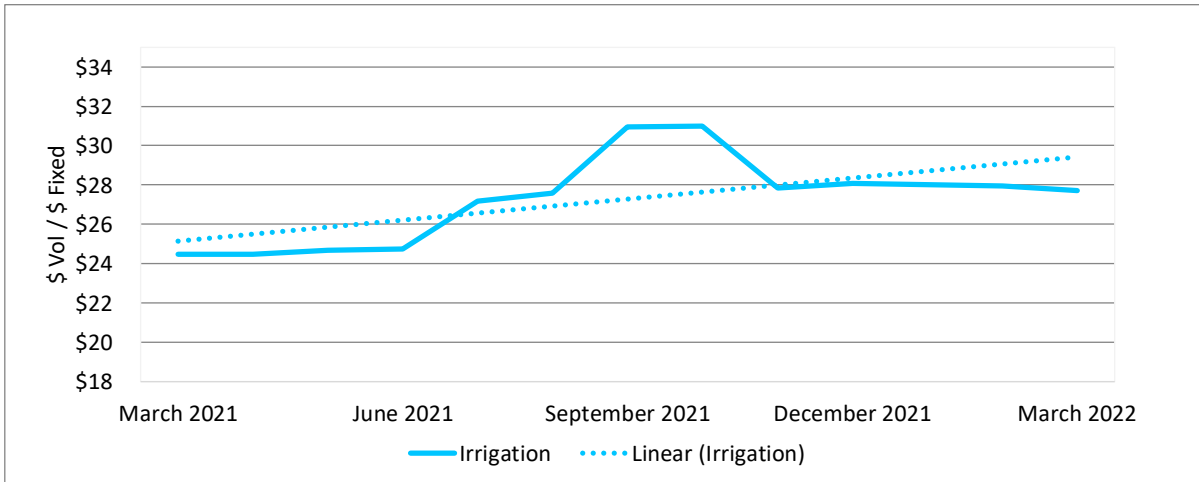
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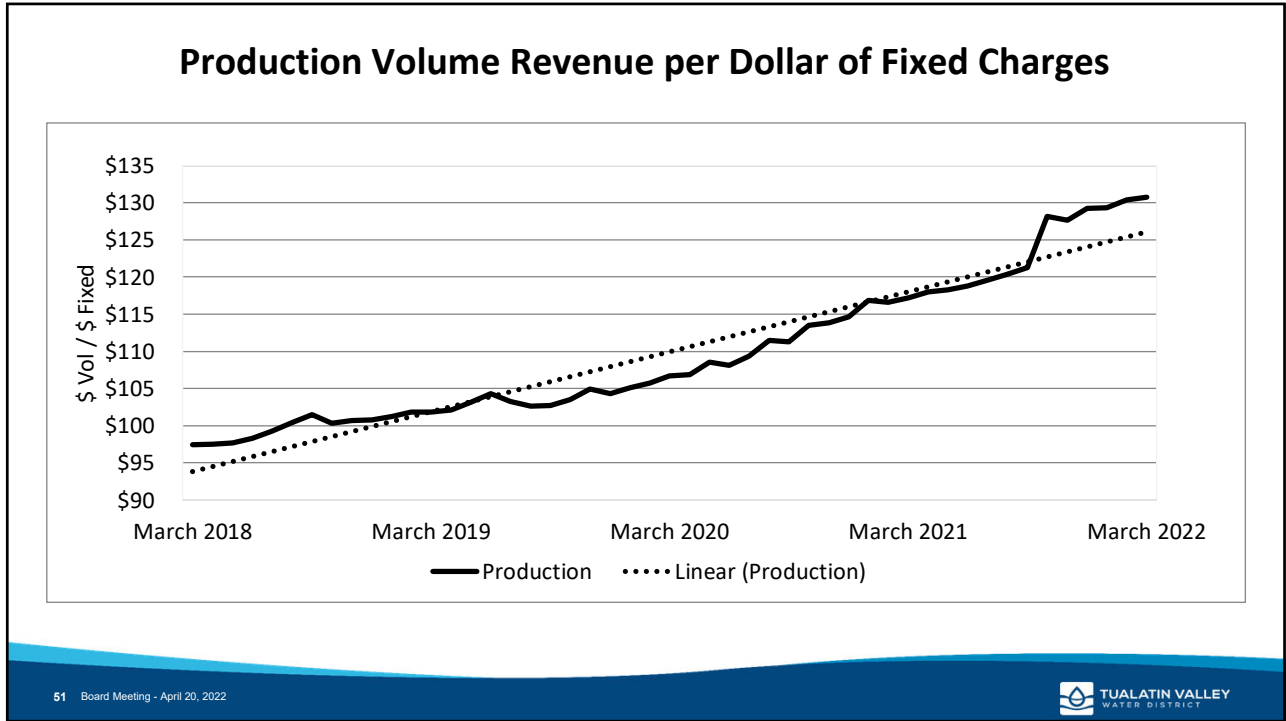


### Irrigation Volume Revenue per Dollar of Fixed Charges

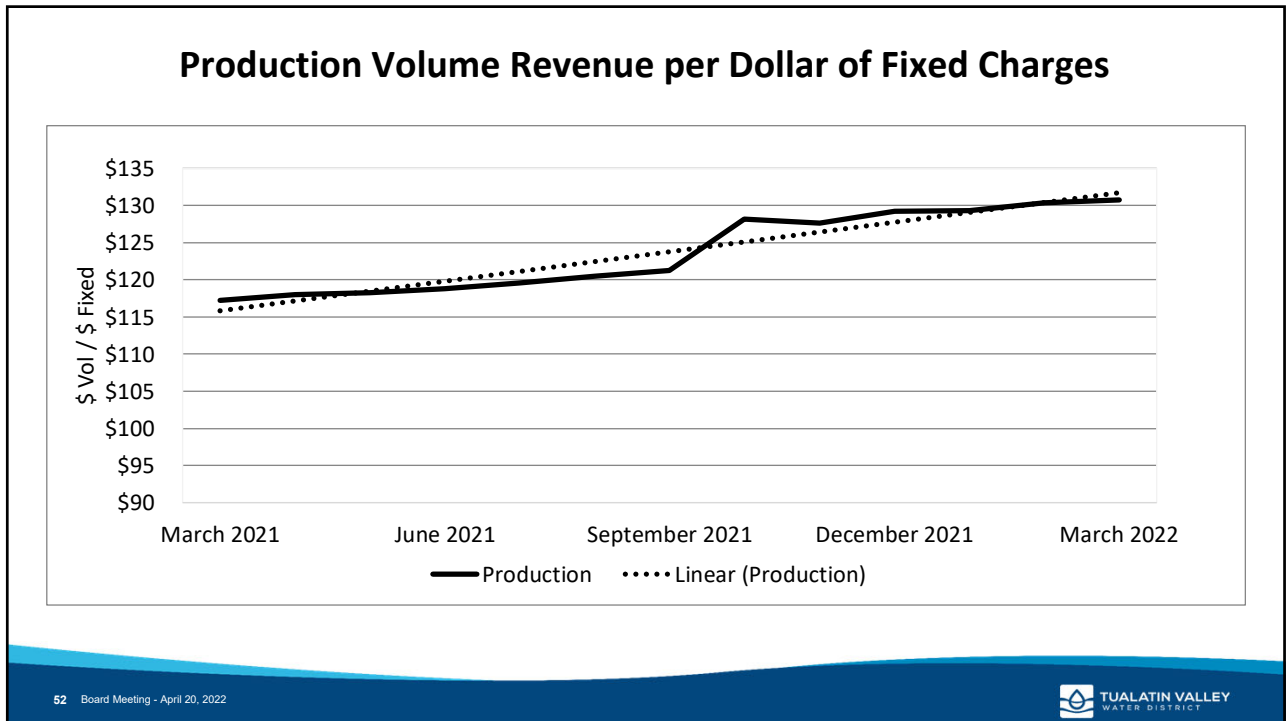


### Irrigation Volume Revenue per Dollar of Fixed Charges





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## What We've Learned This Month

### Revenue Trends

- Single-family residential trends continue in “normal” range
- Commercial class appears to be stabilizing – but below “normal”
- Multifamily residential did not change in March
- Irrigation trends continue in “normal” range
- Production class remains strong

## Monitoring TVWD's Financial Performance



### Revenue

- Impact on future water sales



### Collections

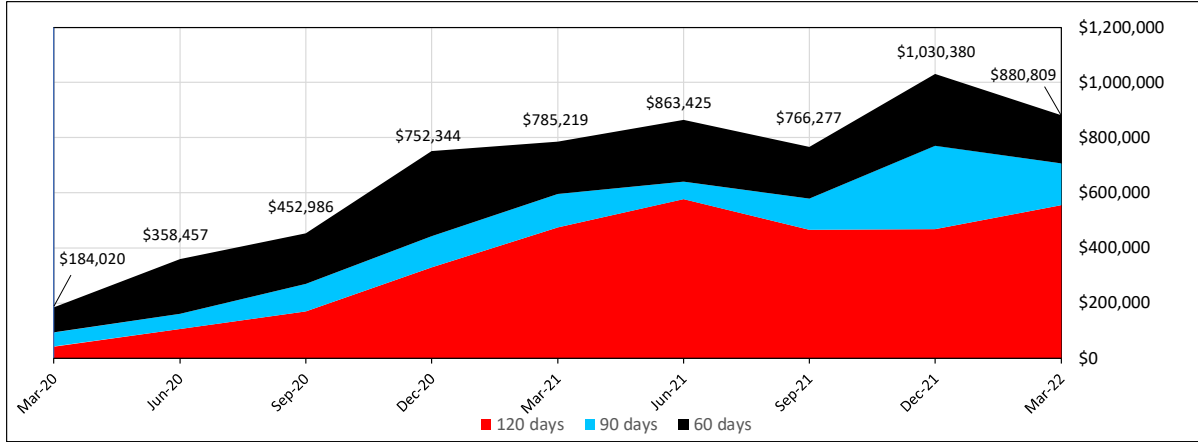
- Capacity for customers to pay their water bills



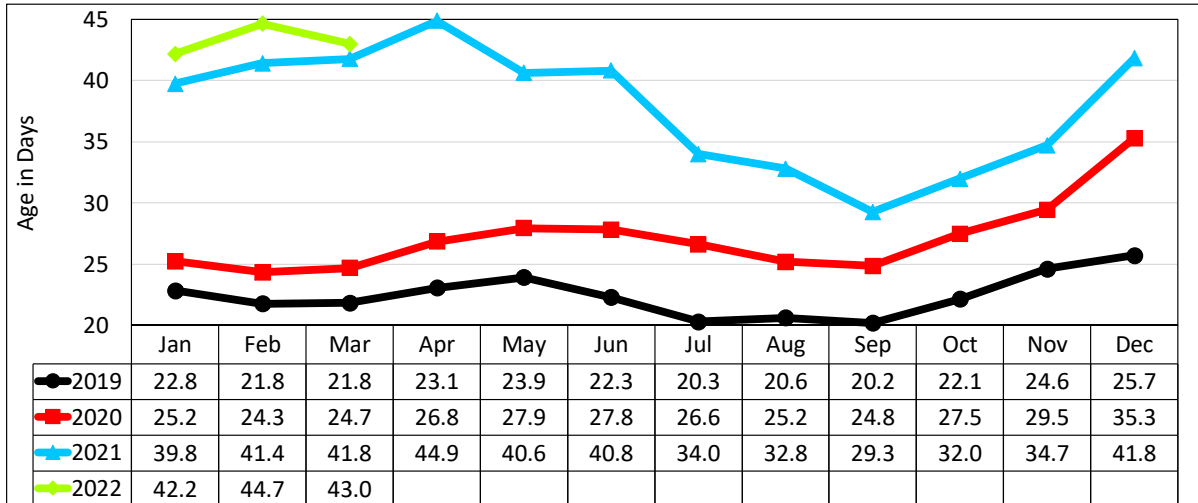
### Expenses

- Effect on budget to respond to COVID-19

### Accounts Receivable Continue to Age



### Average Age of Accounts Receivable



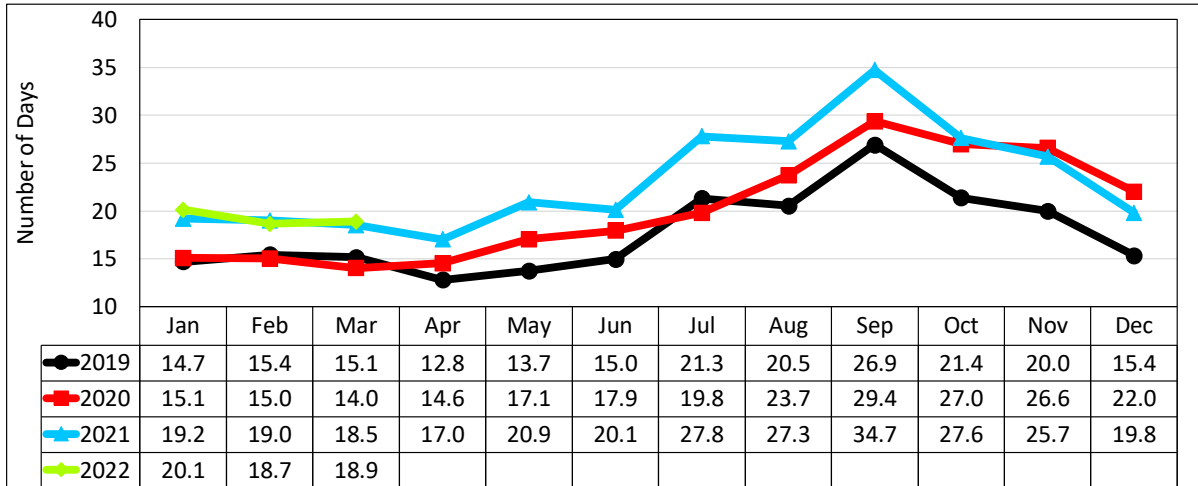
### Days Sales Outstanding

- Measures average number of days to collect on sales

$$\text{Days Sales Outstanding} = \frac{\text{Account Receivable}}{\text{Total Sales}} * 365$$

- Increases in Days Sales Outstanding could indicate collections challenges
- Proposed basis is years of sales to account for seasonality of water sales

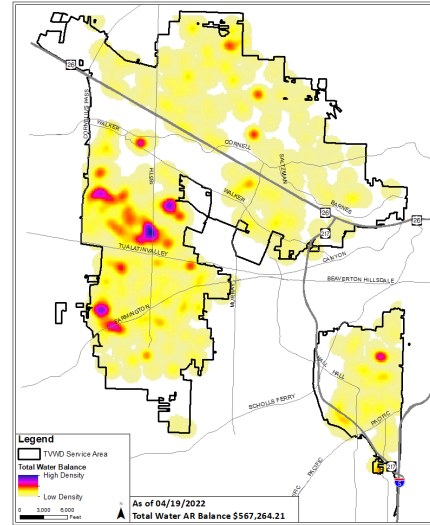
### Days Sales Outstanding



## Locations of Struggling Customers

### Heat map

- Based on District's GIS
- Shows density of dollar balances of bills by location
- Areas of most concern are more red/blue in color



## Monitoring TVWD's Financial Performance



### Revenue

- Impact on future water sales



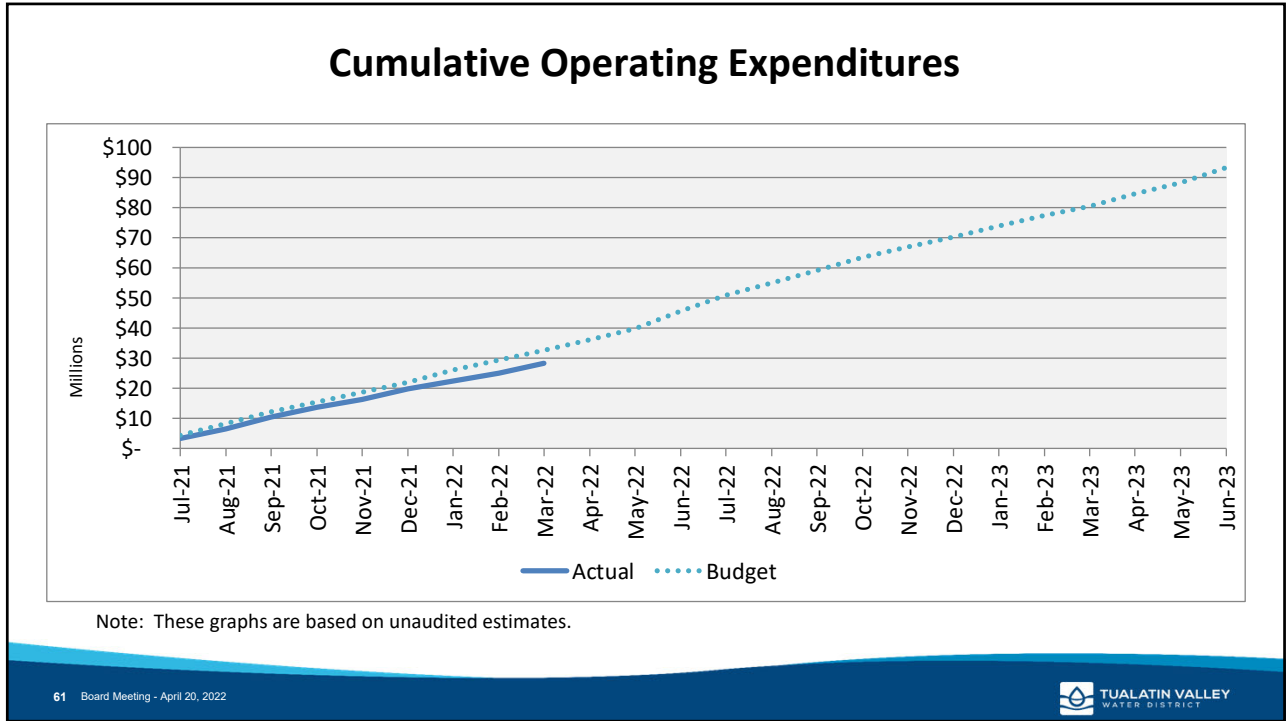
### Collections

- Capacity for customers to pay their water bills



### Expenses

- Effect on budget to respond to COVID-19



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### Closing Thoughts

#### Final Thoughts

- Trends in revenue seems to have stabilized
- Last summer’s revenues were strong
- Inflation continues to be a risk to the District’s financial plan (both operating and capital expenditures)
- Staff will continue to review situation with Board Finance Committee

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# Questions and Comments

*Update on Financial Performance*

**Paul L. Matthews**  
Chief Financial Officer



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# Customer Information System (CIS) Update

**Andrew Carlstrom**  
Customer Service Manager



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## CIS Update Topics

- **Customer Portal Review**
- **Updated Customer Communications Plan**

## Customer Information System (CIS)

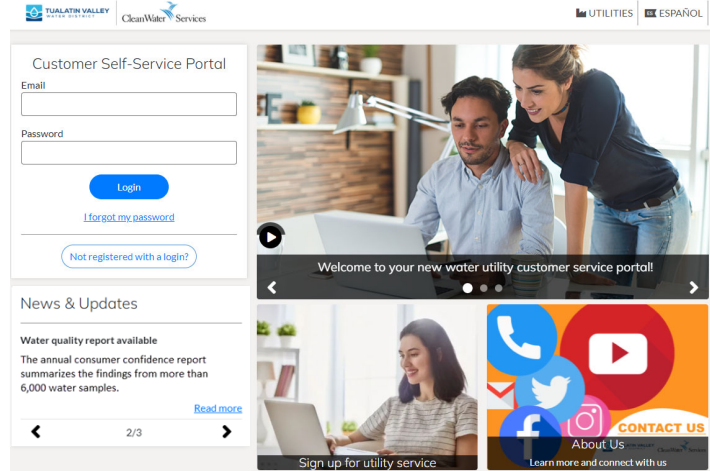
### Project Purpose

- **Replace TVWD's aging, customized Utility Billing ("UB") system with a commercial, off-the-shelf Customer Information System.**
  - Project will continue to build on the collaborative business relationship between TVWD and Clean Water Services
  - New system is Open Smartflex
  - Go-live date for customers and staff users: July 5, 2022

## Review: Open Smartflex Self Service Portal

### Communications Outcomes

- 24/7 access anywhere
- Easy payment methods
- Promote key messages, new and updates
- Graphic display of usage and payment data
- Submit service requests / enroll in programs
- Contact and social media links



## Review: Simple Registration

### 1. Register

#### Registration

Please Note: A valid Water/Sewer account number is needed to enroll in the Customer Self-Service Portal.

#### Enter your information

Name\*

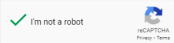
Last name\*

Login email address\*

Password\*

Confirm password\*

I agree to the [Terms and Conditions](#)



### 2. Verify

#### Verification code

Please enter the verification code sent to the given email address

Verification code\*

Didn't get the verification code? [Click here to resend](#)

### 3. Connect

#### Account lookup

Please enter the following details to find your account.

Account number\*

#### Find account using

Service or billing address zip code

Service or billing address zip code\*

## Customer Portal: Communications Plan

### Communications Outcomes

- Educate current customers about Open Smartflex
- Increase number of portal users

### Guiding Plan Principles

- TVWD and CWS co-owners create joint messaging
- Open, transparent customer communications
- Two-way dialogue, determine customers' needs

### Key Messages

- Why change is being made
- Key features and benefits
- Ease of use
- How to get assistance, when needed

### Primary Strategies

- Direct: Bills, emails
- Self-service: Website, social media

## Upcoming CIS Customer Communications

| When              | What   |
|-------------------|--|
| May               | <ul style="list-style-type: none"> <li>• Website update</li> <li>• Notify monthly pay plan customers</li> <li>• Newsletter articles</li> </ul>             |
| June              | <ul style="list-style-type: none"> <li>• "Coming soon" email</li> <li>• Remind monthly pay plan customers</li> </ul>                                       |
| <b>July 5</b>     | <ul style="list-style-type: none"> <li>• <b>Open Smartflex Go-Live</b></li> </ul>  |
| July/August       | <ul style="list-style-type: none"> <li>• Bill message</li> <li>• Distribute informational handout</li> <li>• Newsletter articles</li> </ul>                |
| September/October | <ul style="list-style-type: none"> <li>• Bill inserts</li> <li>• Printing on envelopes</li> <li>• Email to customers</li> <li>• Banners, fliers</li> </ul> |

Social media messages will be posted throughout the spring and summer.  
Talkin' Water live virtual portal demonstration will be scheduled for fall.

# Tualatin Valley Water District



Delivering the Best Water 💧 Service 💧 Value

## Report of Meetings Attended

### Commissioner Bernice Bagnall

| Date      | Meeting or Function   | Purpose                          | \$                    | Claimed  |
|-----------|-----------------------|----------------------------------|-----------------------|--|
| 4/5/2022  | Board work session    | WWSSP, CIS, financial strategies | 50.00                 | X Yes <input type="checkbox"/> No                        |
| 4/8/2022  | BRJOC/JWC             | Budget, pump & chlorine updates  | 50.00                 | X Yes <input type="checkbox"/> No                        |
| 4/20/2022 | Regular Board meeting | District Business                | 50.00                 | X Yes <input type="checkbox"/> No                        |
|           |                       |                                  | \$150                 | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|           |                       |                                  | OK to pay<br>D Carper | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|           |                       |                                  |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|           |                       |                                  |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|           |                       |                                  |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|           |                       |                                  |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|           |                       |                                  |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|           |                       |                                  |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|           |                       |                                  |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|           |                       |                                  |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|           |                       |                                  |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No |

ORS 198.190, "A member of the governing body of a district may receive, not to exceed \$50.00 for each day or portion thereof as compensation for services performed as a member of the governing body. Such compensation shall not be deemed lucrative. The governing body may provide for reimbursement of a member for actual and reasonable traveling and other expenses necessarily incurred by a member in performing official duties." *Please note that in accordance with ORS 294.331 (3), members of the budget committee shall receive no compensation for their services as members of such committee.*

In accordance with Board Policies, an amount equal to the unclaimed reimbursements for meetings will be transferred to the District's Customer Emergency Assistance Fund.

# Tualatin Valley Water District



Delivering the Best Water  Service  Value

## Report of Meetings Attended

### Commissioner Doane

| Date | Meeting or Function   | Purpose                             | \$ | Claimed   |
|------|-----------------------|-------------------------------------|----|---|
| 3/24 | Sign Minutes Etc      |                                     | 50 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 4/5  | Work Session          |                                     | 50 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 4/7  | JWC/BRJOC Pre Meeting |                                     | 50 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 4/8  | JWC/BRJOC Meeting     |                                     | 50 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 4/20 | Regular Meeting       |                                     | 50 | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|      |                       |                                     |    | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|      |                       | \$250<br>OK to pay CEAP<br>D Carper |    | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|      |                       |                                     |    | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|      |                       |                                     |    | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|      |                       |                                     |    | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|      |                       |                                     |    | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|      |                       |                                     |    | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|      |                       |                                     |    | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|      |                       |                                     |    | <input type="checkbox"/> Yes <input type="checkbox"/> No            |

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In accordance with Board Policies, an amount equal to the unclaimed reimbursements for meetings will be transferred to the District's Customer Emergency Assistance Fund.

# Tualatin Valley Water District



Delivering the Best Water  Service  Value

## Report of Meetings Attended

### Commissioner Jim Duggan

| Date       | Meeting or Function                    | Purpose                 | \$                    | Claimed   |
|------------|--|-------------------------|-----------------------|---|
| 04/05/2022 | TVWD Board Work Session & Exec Session | WWSS, CIS, Fin. Updates | 50                    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 04/07/2022 | WWSS Board & Exec Session              | Regular Monthly Mtg.    | 50                    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 04/12/2022 | Board Agenda Planning                  | Meet with Tom & Todd    | 50                    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 04/12/2022 | State of County                        | Video Premiere          |                       | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 04/12/2022 | CPO #1 Meeting                         | Election Forum          |                       | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 04/13/2022 | RWPC Executive Committee               | Reg. 1/3 Year Meeting   | 50                    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 04/20/2022 | TVWD Board Meeting                     | Regular Monthly Mtg     | 50                    | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
|            |  |                         | \$250                 | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|            |  |                         | OK to pay<br>D Carper | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|            |  |                         |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|            |  |                         |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|            |  |                         |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|            |  |                         |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No            |

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In accordance with Board Policies, an amount equal to the unclaimed reimbursements for meetings will be transferred to the District's Customer Emergency Assistance Fund.



Report of Meetings Attended

**Commissioner Dick Schmidt**

| Date     | Meeting or Function | Purpose | \$                    | Claimed   |
|----------|---------------------|---------|-----------------------|---|
| 04052022 | Work session        | Updates |                       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 04202022 | Regular board       |         |                       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
|          |                     |         | \$100                 | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|          |                     |         | OK to pay<br>D Carper | <input type="checkbox"/> Yes <input type="checkbox"/> No            |
|          |                     |         |                       | <input type="checkbox"/> Yes <input type="checkbox"/> No            |

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By Board Resolution 02-14, an amount equal to the unclaimed funds for services will be transferred to the District's Customer Emergency Assistance Program.

## Debbie Carper

---

**From:** Todd Sanders  
**Sent:** Wednesday, April 20, 2022 7:16 PM  
**To:** Debbie Carper  
**Subject:** Re: Commissioner Meetings Attended Forms

I approve the April 2022 Meetings Attended Forms for Commissioner's Bagnall, Doane, Duggan and Schmidt.

---

**From:** Debbie Carper  
**Sent:** Wednesday, April 20, 2022 5:53 PM  
**To:** Todd Sanders  
**Subject:** Commissioner Meetings Attended Forms

Hi Commissioner Sanders,

In lieu of a physical signature, could you please send your email approval of the attached forms?

Thank you!

**Debbie Carper**  
District Recorder  
[Debbie.Carper@tvwd.org](mailto:Debbie.Carper@tvwd.org)  
phone: (503) 848-3014



TUALATIN VALLEY  
WATER DISTRICT



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# Tualatin Valley Water District



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## Report of Meetings Attended

### Commissioner Todd Sanders

| Date | Meeting or Function         | Purpose   | \$                 | Claimed  |
|------|-----------------------------|---|--------------------|--|
| 3/28 | Sanders : Hickmann          | Updates on Hiring   | 50                 | X Yes <input type="checkbox"/> No                        |
| 3/29 | Meet with TVWD Recorder     | Sign Meeting Minutes & Other documents                    | 50                 | X Yes <input type="checkbox"/> No                        |
| 3/31 | Sanders : Eder              | Updates on Lobby efforts                                  | 50                 | X Yes <input type="checkbox"/> No                        |
| 4/5  | Monthly Work Session        | Updates on WWSS, CIS update                               | 50                 | X Yes <input type="checkbox"/> No                        |
| 4/8  | BRJOC/JWC Quarterly Meeting | Chlorine Contract update. BOR decision on Scoggins Dam    | 50                 | X Yes <input type="checkbox"/> No                        |
| 4/11 | Sanders : Hickmann          | Updates on Hiring, staffing                               | 50                 | X Yes <input type="checkbox"/> No                        |
| 4/12 | Sanders : Duggan : Hickmann | Agenda planning meeting                                   | 50                 | X Yes <input type="checkbox"/> No                        |
| 4/13 | JWC Executive Committee     | Supply Contracts  | 50                 | X Yes <input type="checkbox"/> No                        |
| 4/19 | JWC Executive Committee     | Chlorine Contract   | 50                 | X Yes <input type="checkbox"/> No                        |
| 4/20 | Monthly Meeting             | WWSP update, Water Supply update, Financial Strategy, CIS | 50                 | X Yes <input type="checkbox"/> No                        |
|      |                             |   | \$500              | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|      |                             |   | OK to pay D Carper | <input type="checkbox"/> Yes <input type="checkbox"/> No |
|      |                             |   |                    | <input type="checkbox"/> Yes <input type="checkbox"/> No |

ORS 198.190, "A member of the governing body of a district may receive, not to exceed \$50.00 for each day or portion thereof as compensation for services performed as a member of the governing body. Such compensation shall not be deemed lucrative. The governing body may provide for reimbursement of a member for actual and reasonable traveling and other expenses necessarily incurred by a member in performing official duties." *Please note that in accordance with ORS 294.331 (3), members of the budget committee shall receive no compensation for their services as members of such committee.*

In accordance with Board Policies, an amount equal to the unclaimed reimbursements for meetings will be transferred to the District's Customer Emergency Assistance Fund.

## Debbie Carper

---

**From:** Jim Doane  
**Sent:** Wednesday, April 20, 2022 8:55 PM  
**To:** Debbie Carper  
**Subject:** Re: Sanders form approval  
**Attachments:**

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I approve. Jim Doane

On Wed, Apr 20, 2022, 17:48 Debbie Carper wrote:

Hi Commissioner Doane,

In lieu of a physical signature, could I please get your email approval of the attached form for Commissioner Sanders?

Thank you!

**Debbie Carper**  
District Recorder  
[Debbie.Carper@tvwd.org](mailto:Debbie.Carper@tvwd.org)  
phone: (503) 848-3014



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WATER DISTRICT



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TUALATIN VALLEY  
WATER DISTRICT

# Board Work Session Minutes

May 3, 2022

## WORK SESSION – 6:07 PM

### CALL TO ORDER

Commissioners Present: Bernice Bagnall; Jim Doane, PE; Jim Duggan, PE; Todd Sanders; Dick Schmidt

Staff Present: Tom Hickmann, PE, Chief Executive Officer; Paul Matthews, Chief Financial Officer; Dave Kraska, PE, Water Supply Program Director; Clark Balfour, General Counsel; Tim Boylan, IT Services Director; Andrew Carlstrom, Customer Service Manager; Andrea Watson, Communications and Public Affairs Supervisor; Nick Augustus, PE, Engineering Division Manager; Debbie Carper, District Recorder

### ANNOUNCEMENTS

Mr. Hickmann provided updates on the Chief Operating Officer and HR Director recruitments, a reminder of the upcoming Talkin' Water virtual forum on water efficient irrigation on May 9 and noted the recent update to the Board Communications Log (see attached presentation).

Ms. Watson gave the safety moment on digging safely.

### 1. DISCUSSION ITEMS

#### A. Willamette Water Supply System (WWSS) Commission Update. *Staff Report – Dave Kraska*

Mr. Kraska reviewed the WWSS Commission April agenda, describing in detail MPE\_1.3 project updates and highlighting the remaining risks to completing WWSS construction compared to the funds held in contingency and management reserve (see attached presentation). Mr. Matthews noted the minor impact the project cost increases have on the District's borrowing capacity and said staff is not proposing any resulting modifications to the Financial Plan.

Mr. Kraska continued his presentation with a review of the current approvals and procurement forecast and an overview of recent Willamette Water Supply Program activities.

#### B. Customer Information System (CIS) Implementation Update. *Staff Report – Andrew Carlstrom*

Mr. Carlstrom described the CIS project purpose, costs, related intergovernmental agreements with Clean Water Services and said the project is still on track for a July 5 go-live (see attached presentation). He reviewed the implementation schedule, status of project areas and provided a sample list of training courses for users.

#### C. Communications and Outreach Plans: Rate Advisory Committee (RAC) and 2022 Rate Setting. *Staff Report – Andrea Watson*

Ms. Watson discussed the objectives and timelines for both the RAC and rate setting processes (see attached presentation).

## ADJOURNMENT

There being no further business, President Sanders adjourned the meeting at 7:11 p.m.

---

Todd Sanders, President

---

Jim Doane, Secretary



## CHIEF OPERATING OFFICER & HR DIRECTOR UPDATES

TVWD's recruitment process for a Chief Operating Officer (COO) continues; executive interviews are scheduled next week. Interviews for the Human Resources Director position commence May 12<sup>th</sup>.

## MAY 9 TALKIN' WATER

As a reminder, TVWD's next virtual forum will be held noon, May 9 and feature water efficient irrigation. Pre-registration is not required for this event. You can find the link at: <https://www.tvwd.org/district/page/talkin-water>.

## BOARD COMMUNICATIONS LOG

There was one update to the Board communications log this month. Notes from the March 10th Finance Committee Meeting have been distributed electronically.

3 | Board Work Session - May 3, 2022



3

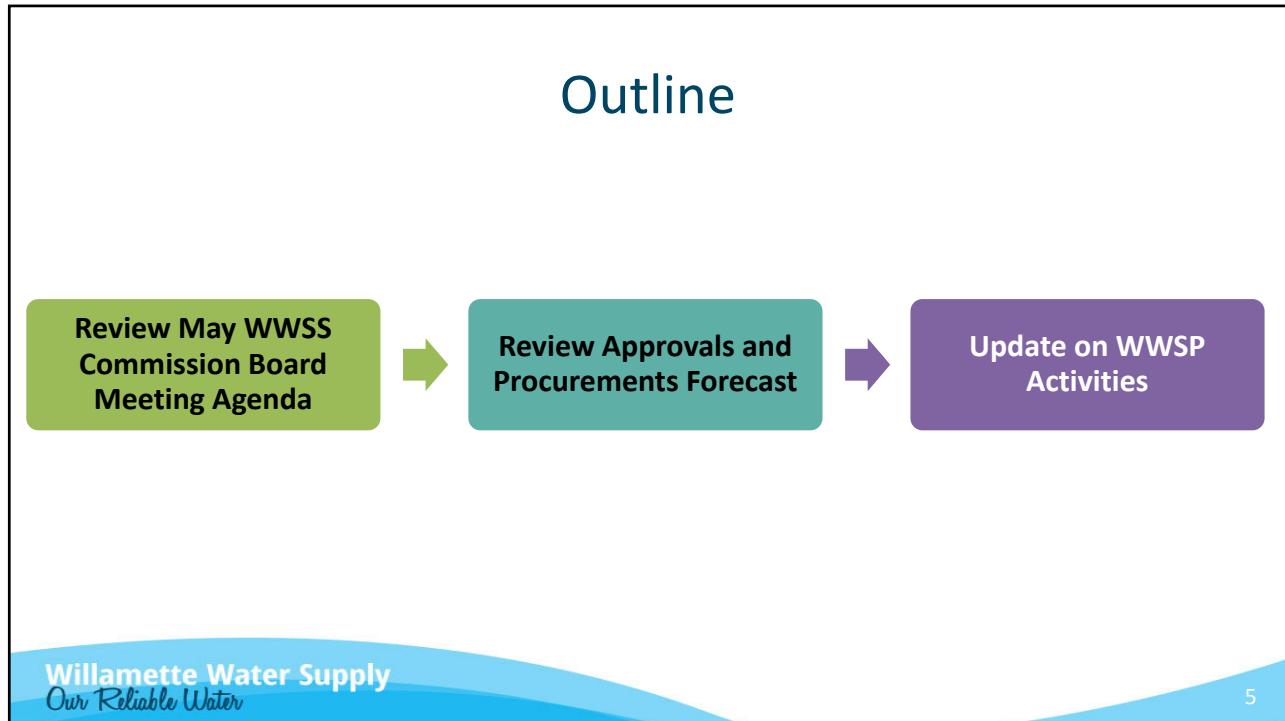
**Willamette Water Supply**  
*Our Reliable Water*

**Willamette Water Supply System  
Commission Update**

**TVWD Work Session**

May 3, 2022

4



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# Willamette Water Supply System Commission

## May 5, 2022 Board Meeting Agenda

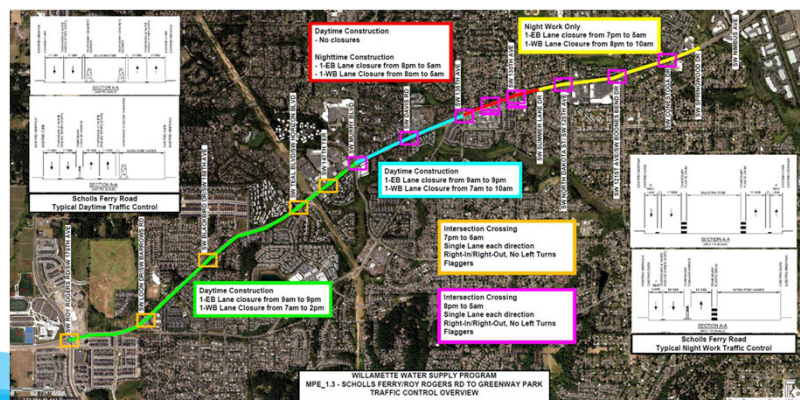
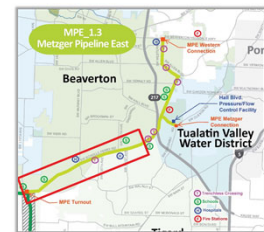
1. General Manager's Report
2. Public Comment
3. Consent Agenda
  - A. Approve the April 7, 2022, meeting minutes
4. Business Agenda
  - A. Adopt Sherwood Emergency Intertie IGA
  - B. Approve MPE\_1.3 Contract for Construction
5. Information Items
  - A. Planned June Business Agenda items
  - B. Discussion of Fiscal Year 2022 – 23 Board Meeting Dates and Meeting Location
  - C. The next Regular Board Meeting scheduled on June 2, 2022

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## MPE\_1.3 Background & Project Scope

### Scope of Work

- 17,700 LF of 48-inch welded steel pipe
- Major Intersection Crossings
  - Roy Rogers/SW 175th
  - Murry Blvd.
  - SW Barrows Rd
  - SW 125<sup>th</sup> Ave
  - SW 130<sup>th</sup> Ave



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## Low Bid Construction Procurement

- Invitation to Bid (ITB) published on February 23, 2022
- Advertised in the Oregon DJC
- No firms participated in proprietary meetings
- Two bids were received:
  - Emery & Sons
  - Kerr Contractors
- Public Bid Opening occurred April 5, 2022



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## MPE\_1.3 Bid Results

| Company          | Cost Proposal   | Variance from Low Bid | Percent Difference |
|------------------|-----------------|-----------------------|--------------------|
| Kerr Contractors | \$53,910,918.00 | \$4,695,147.00        | 9.54%              |
| Emery & Sons     | \$49,215,771.00 | \$0.00                | 0.00%              |

- Internal review for cost errors, ambiguities, apparent unbalance of unit pricing, apparent front-end loading and pricing that is commensurate with current market conditions
- Based on the evaluation of the submitted bids, Emery & Sons was the lowest responsive bidder and the respondent determined to be the most advantageous to the Owner

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## Budget Information

| Baseline 7.0 (Q1 2022) for MPE_1.3                      |                     |
|---|---------------------|
| Baseline 7.0 Construction + Contingency Budget          | \$45,336,754        |
| <b>Total Contract Price</b>                             | <b>\$49,215,771</b> |
| Recommended Project Contingency (10%)                   | \$4,921,577         |
| <b>Total Estimated Cost</b>                             | <b>\$54,137,348</b> |
| <b>Potential Program Increase Based on Baseline 7.0</b> | <b>\$8,880,594</b>  |

- Since it is an “ancillary project,” the budget variance will require additional funding of \$8.9M from TVWD.
- TVWD was holding \$7.7M in MR for this project in its CIP.

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## Budget Reconciliation

*(Baseline 7.0 was based on the Engineer’s 90% OPCC)*

### Scope modification between 90% and bidding - \$1.5M

- Barrows Sewer Relocation
- High Voltage PGE Relocation at Roy Rogers and Scholls Ferry
- Pre-Mobilization Standby
- Vibration Risk Assessment and Mitigation
- I&C System Integrator

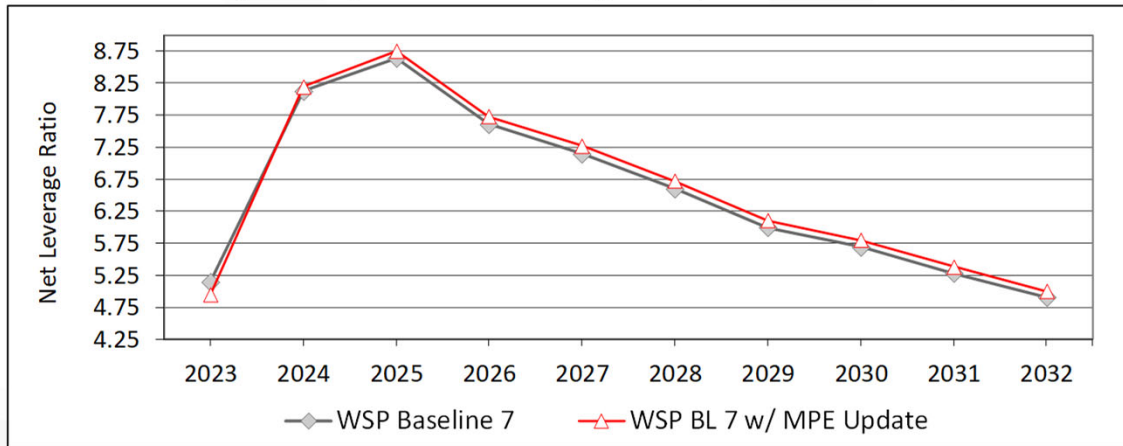
### Pipe fabrication and installation - \$6.8M

- Fuel cost
- Risk
- Equipment rates
- Labor
- Limited bidder participation

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## Minor Impact on TVWD's Borrowing Capacity

10-year Comparison – Net Leverage Ratio (Fiscal Years 2023-2032)



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## Remaining Risks versus Contingency and Management Reserve

### Remaining Risks

- Projects left to bid:

| Project | BL 7.0 Budget | Bid     | Delta  |
|---------|---------------|---------|--------|
| PLM_4.2 | \$36.8M       | \$39.1M | \$2.3M |
| PLW_2.1 | \$17.4M       | ???     | ???    |
| RWF_1.0 | \$49.8M       | ???     | ???    |
| GMP 2   |               |         |        |

- Real Estate (cost, delays)
- Permitting (delays)
- Construction (cost, schedule)

### Contingency and Management Reserve

- Contingency
  - Held at the project level to address minor, in-scope changes during construction
  - Typically, 10% added to contract value
  - Total contingency held in BL 7.0: \$45.8M
- Management Reserve
  - Address systemwide risks, unanticipated IGAs, high bids, and major project changes
  - Original recommendation: \$55M
  - Addition from recent favorable bids: \$23.9M
  - Current total MR: \$78.9M

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## REVIEW APPROVALS AND PROCUREMENTS FORECAST

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Approvals and Procurement Forecast for April – June 2022

### Program Baseline or Related Plans

| Description | Program Director | WWSS Management Committee | WWSS Commission Board |
|-------------|------------------|---------------------------|-----------------------|
| --          | --               | --                        | --                    |

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## Approvals and Procurement Forecast for April – June 2022

### Real Estate

| Description | Program Director | WWSS Management Committee | WWSS Commission Board |
|-------------|------------------|---------------------------|-----------------------|
| --          | --               | --                        | --                    |

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## Approvals and Procurement Forecast for April – June 2022

### IGAs, MOUs, Permit Commitments

#### City of Sherwood

- DCS\_1.0 Broadband Services IGA (April)
- Sherwood Emergency Intertie IGA (May)

#### Hagg Lane/Butternut Creek

- PLW\_1.3 Developer Agreement Amendment 3 (Management Committee in February)

#### Washington County Land Use & Trans

- PLM\_4.2 Construction IGA (February)

#### Other

- Tree Donation Acknowledgement Form (April)

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## Approvals and Procurement Forecast for April – June 2022

### Contracts

| Title                             | Goal              | Value    | Key Dates                     |
|-----------------------------------|-------------------|----------|-------------------------------|
| MPE_1.3 Contract for Construction | Construct MPE_1.3 | \$49.2M  | WWSS Board Approval: 5/5/2022 |
| PLW_2.1 Contract for Construction | Construct PLW_2.1 | ~\$15.1M | WWSS Board Approval: 7/7/2022 |

## Approvals and Procurement Forecast for April – June 2022

### Contract Amendments and Change Orders\*

| Title  | Goal  | Value    | Key Dates                     |
|--|---|----------|-------------------------------|
| Permitting Services Contract   | System-wide permitting services   | \$743k   | WWSS Board Approval: 4/7/2022 |
| RWF_1.0 GMP 1.5 for Construction   | Construct elements of the RWF_1.0 project during the summer 2022                              | ~\$2.9M  | WWSS Board Approval: 6/2/2022 |
| WWSP Program and Construction Management Services FY 2023 Annual Work Plan | Approve scope, staffing, and fee for program and construction management services for FY 2023 | ~\$24.8M | WWSS Board Approval: 6/2/2022 |

\*having values higher than the Program Director's authority

## Approvals and Procurement Forecast for April – June 2022

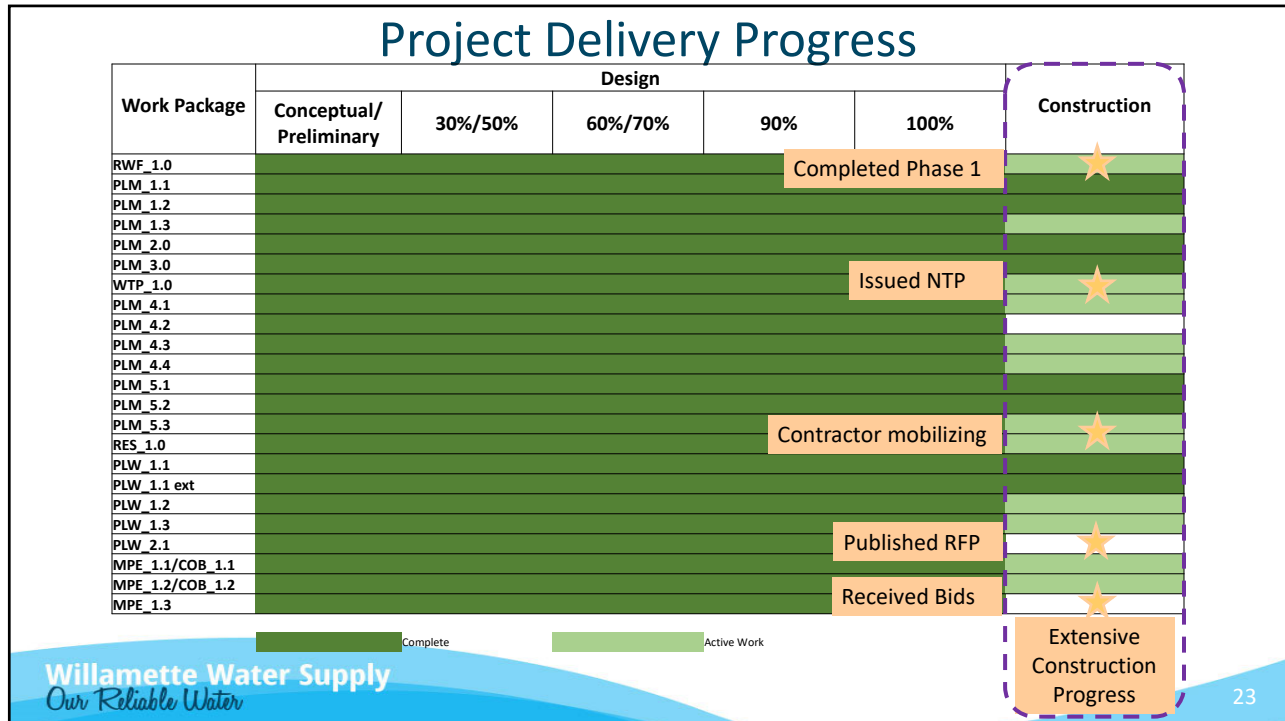
# Local Contract Review Board Rule Exemption

| Title | WWSS Management Committee Approval | WWSS Board Informational Item | WWSS Board Consider Approval |
|-------|------------------------------------|-------------------------------|------------------------------|
| --    | --                                 | --                            | --                           |

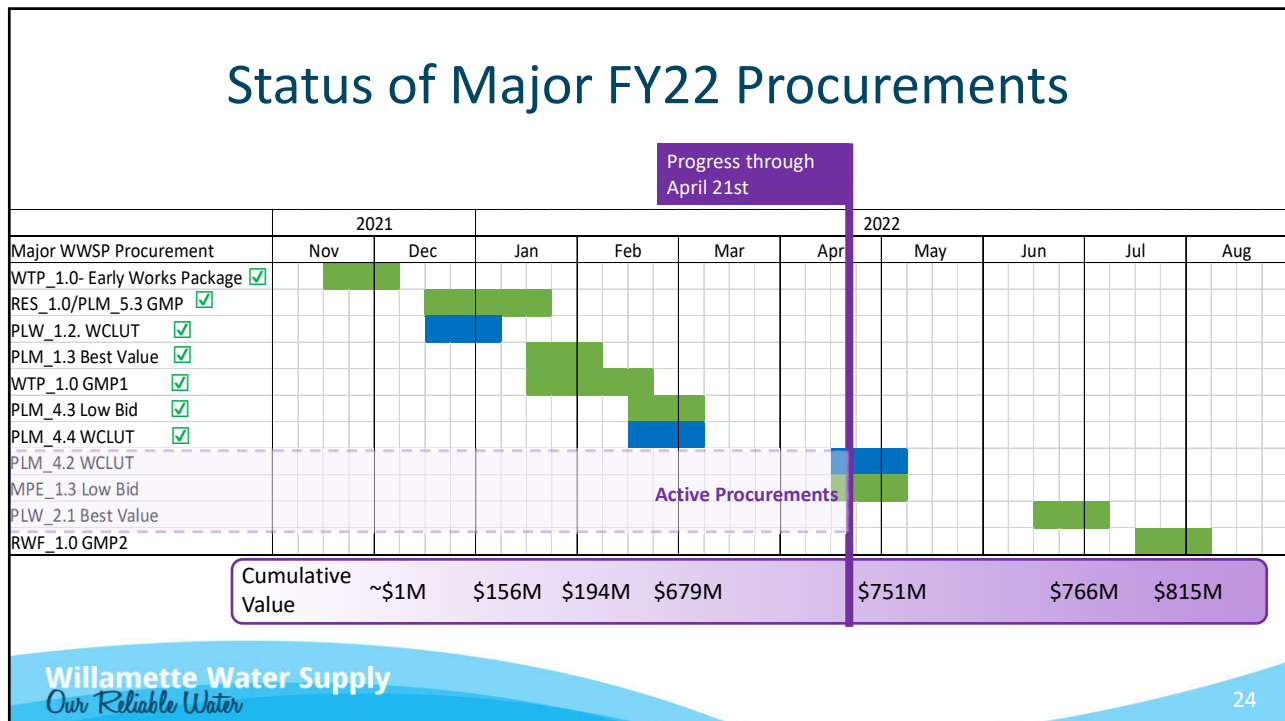
21

## UPDATE ON WWSP ACTIVITIES

22

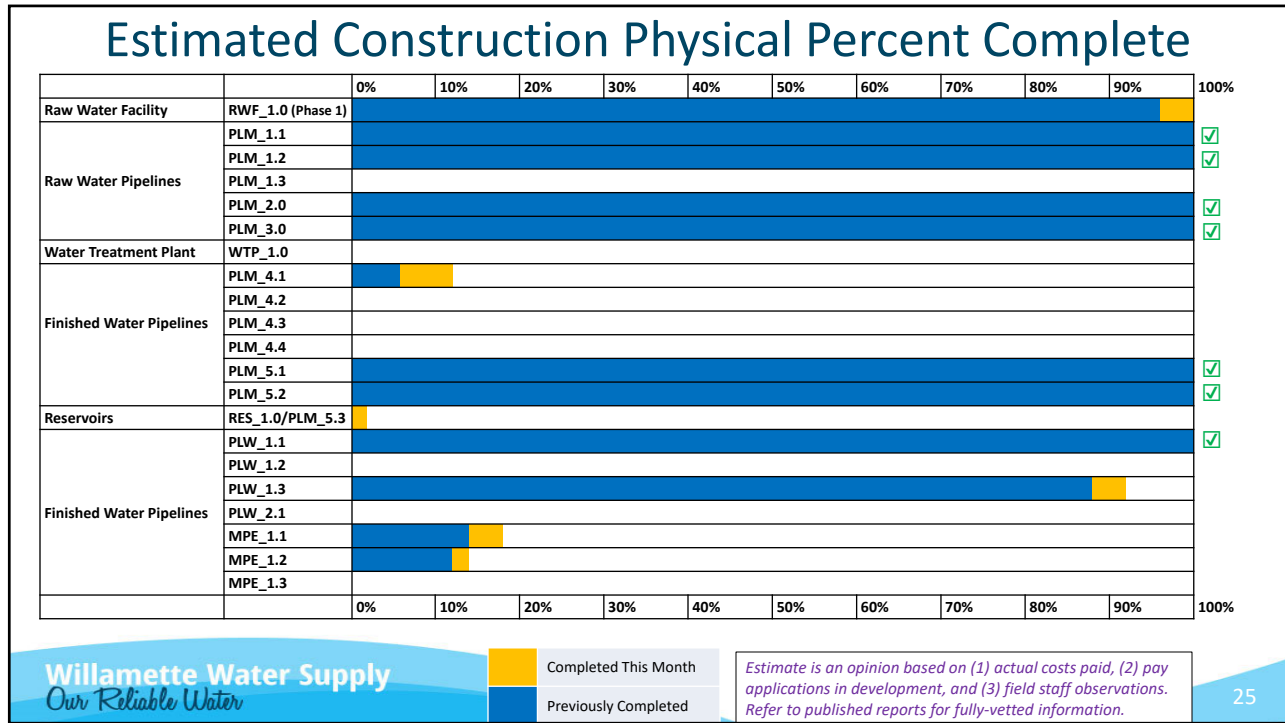


23

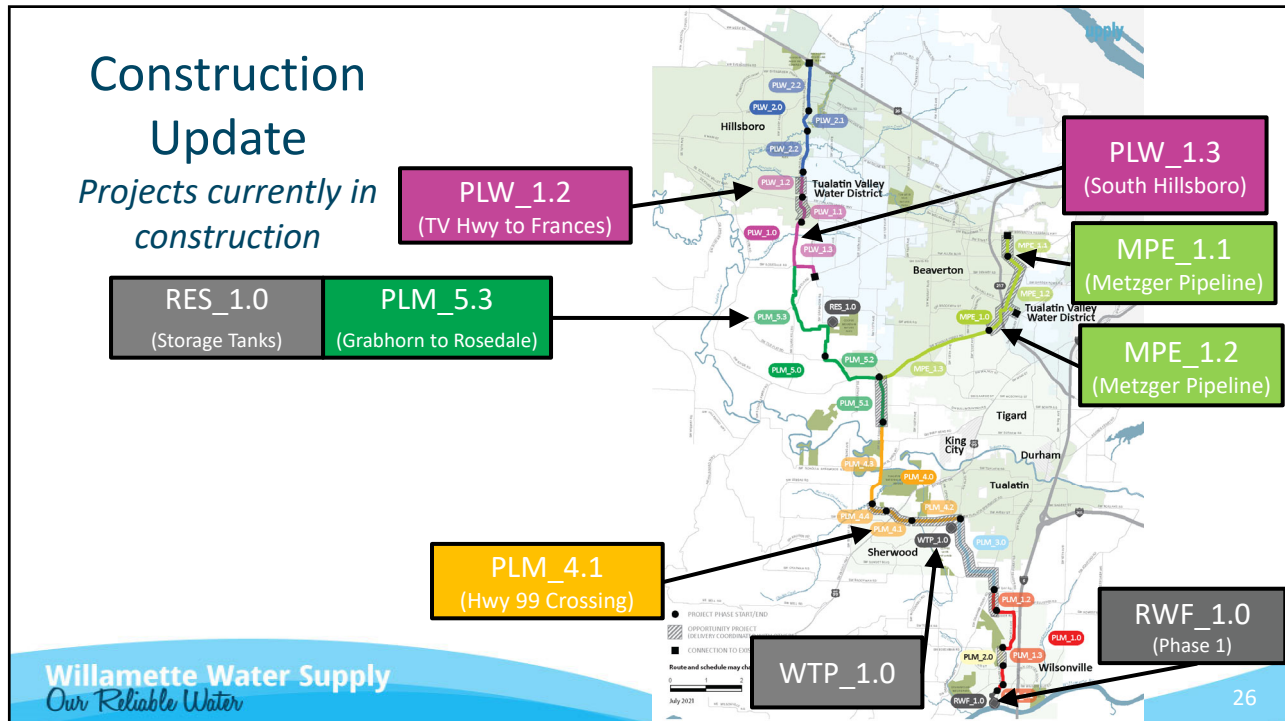


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25



26

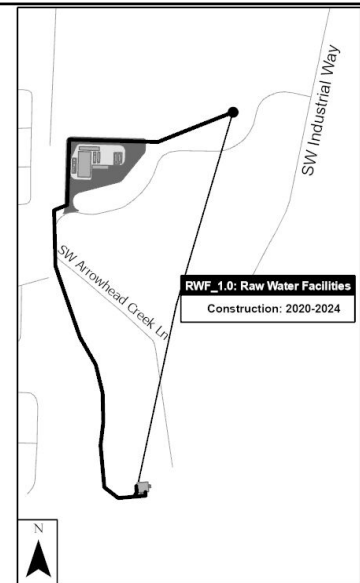
## RWF\_1.0

Contractor: Kiewit Infrastructure West Co.

Designer: Black & Veatch

### Current and Planned Activities:

- New air burst system started up and placed in service.
- Completed new landscape irrigation system through Park and Lower Site.
- Completed punch list and final cleanup.
- Achieved “Phase 1 Construction Complete” milestone on 3/25/2022
- Continuing administrative close-out work.
- Preparing for upcoming GMP#2.



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## Construction Photos – RWF\_1.0

Lower Site south slope landscaping work completed



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## Construction Photos – RWF\_1.0

Raw Water Pump Station, permeable asphalt access road



Willamette Water  
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## Construction Photos – RWF\_1.0

Raw Water Pump Station, Main Overlook, landscaping



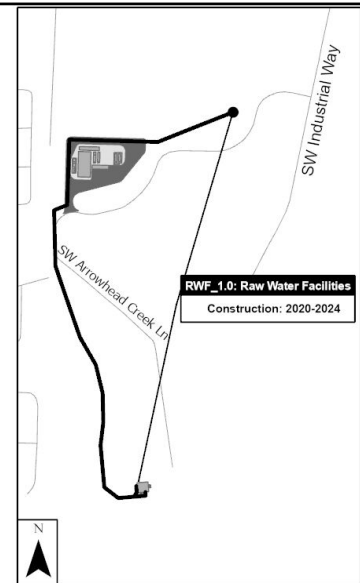
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## RWF\_1.0 Notable Topics

- External Coordination
  - Continuing coordination with COW's Plant expansion Project and 5<sup>th</sup>/Kinsman Project
- Potential Claims
  - None.
- Delivery Challenges
  - None.



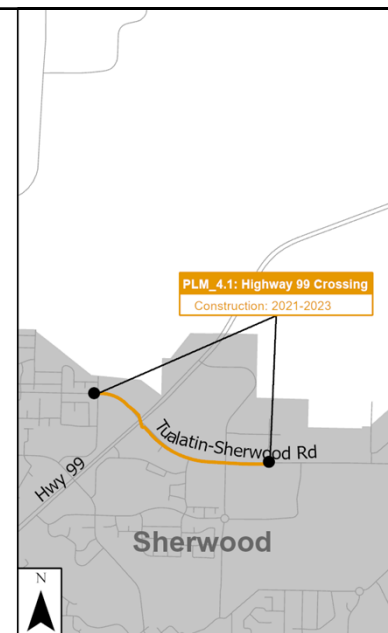
31

## PLM\_4.1

Partner: Washington County  
Contractor: Moore Excavation Inc.  
Designer: Brown & Caldwell

### Current and Planned Activities:

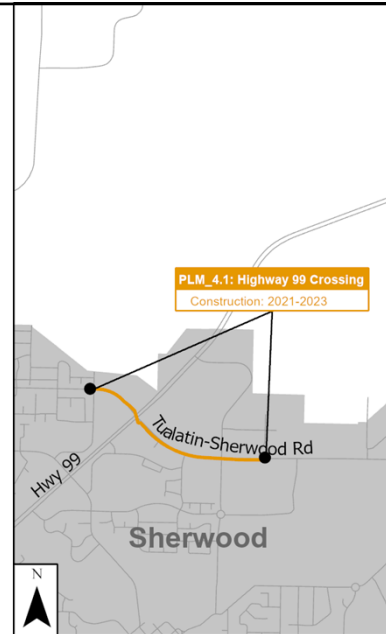
- Utility and storm drain piping
- Road widening on Roy Rogers Rd. west of Hwy 99
- Road widening on Tualatin-Sherwood Rd.
- WWSP submittals and RFIs



32

## PLM\_4.1 Notable Topics

- Partner Coordination
  - No issues
- Potential Claims
  - None
- Delivery Challenges
  - None



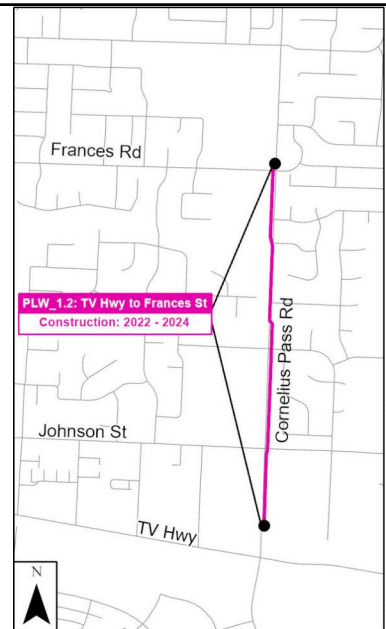
33

## PLW\_1.2

Partner: Washington County  
Contractor: Tapani, Inc.  
Designer: Kennedy/Jenks

### Current and Planned Activities:

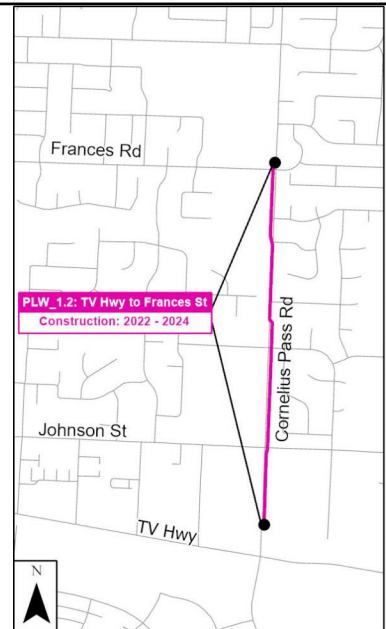
- Clearing and demolition for road widening
- Contractor mobilization
- Potholing for waterline



34

## PLW\_1.2 Notable Topics

- External Coordination
  - No issues
- Potential Claims
  - None
- Delivery Challenges
  - None



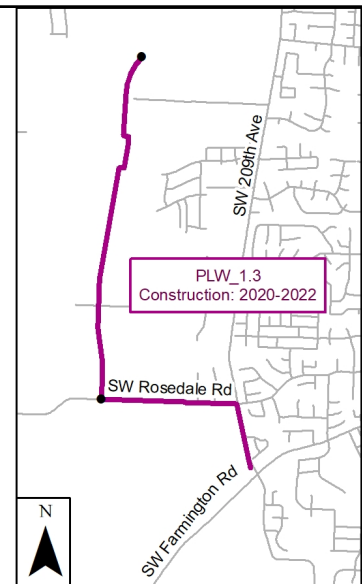
35

## PLW\_1.3

Contractor: Tapani, Inc.  
Designer: Kennedy/Jenks

### Current and Planned Activities:

- CAV and blowoff appurtenances
- Cathodic protection test stations
- Disinfection and pressure testing
- Butternut Creek turnout vaults and piping
- Farmington turnout vaults and piping



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## Construction Photos – PLW\_1.3

CAV vault and appurtenance piping



Willamette Water Sup  
Our Reliable Water

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## Construction Photos – PLW\_1.3

Butternut Creek turnout



Willamette Water Sup  
Our Reliable Water

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## Construction Photos – PLW\_1.3

Cathodic protection  
test station wiring



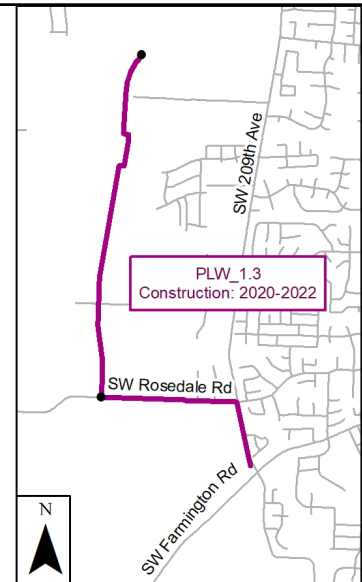
Willamette Water Supply  
Our Reliable Water

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## PLW\_1.3 Notable Topics

- External Coordination
  - Coordinating water supply for testing with COH and TVWD
  - Coordinating work at Farmington vault with TVWD's contractor
- Potential Claims
  - None
- Delivery Challenges
  - None



Willamette Water Supply  
Our Reliable Water

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40

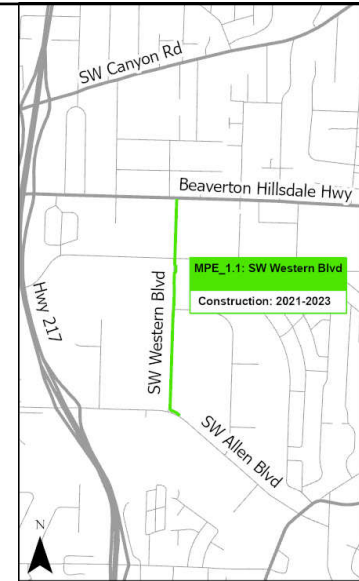


## MPE\_1.1

Partner: City of Beaverton  
 Contractor: Moore Excavation Inc.  
 Designer: Brown & Caldwell

### Current and Planned Activities:

- 48-inch WWSP waterline installation: 1,600 LF installed (42%)
- Progressing 48-inch waterline toward Allen Blvd.
- Start of 16-inch COB waterline to begin in May



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## Construction Photos – MPE\_1.1

WWSP waterline installation on Western Ave. approaching Allen Blvd. (looking north)



42

## Construction Photos – MPE\_1.1

48-inch waterline installation on Western Ave.



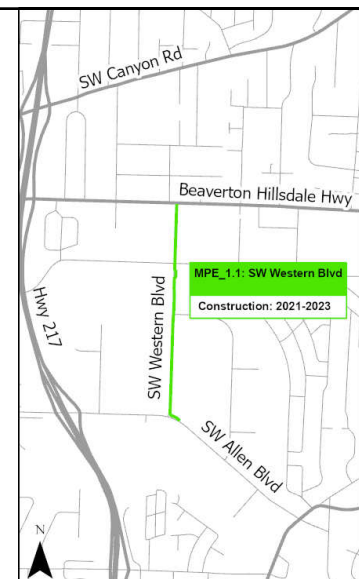
Willamette Water  
Our Reliable Water

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## MPE\_1.1 Notable Topics

- Partner Coordination
  - Ongoing coordination with City of Beaverton
- Potential Claims
  - None
- Delivery Challenges
  - None



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Our Reliable Water

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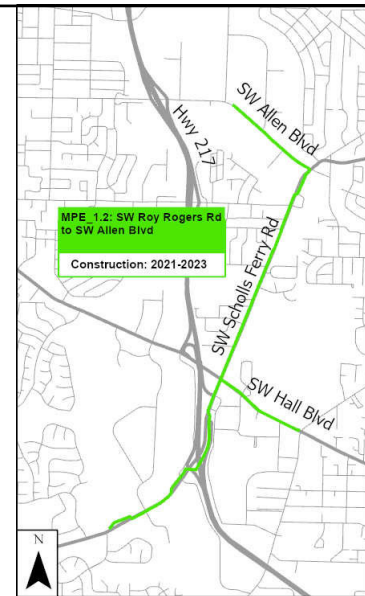


## MPE\_1.2

Contractor: Emery & Sons  
Designer: Brown & Caldwell

### Current and Planned Activities:

- Completed all annular space grouting for Tunnel #3 and #4 and made connection in sending shaft.
- Started backfill of shaft at Hwy 217 onramp
- Completed 30-inch tunnel under RR for 16-inch COB waterline
- Continued 16-inch COB open cut waterline on Cascade Ave.
- Continued 48-inch open cut waterline (night work) on Scholls Ferry Rd. between Hwy 217 and Hall Blvd.



Willamette Water Supply  
*Our Reliable Water*

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## Construction Photos – MPE\_1.2

Shafts for Tunnels #3 and #4 at Scholls Ferry Rd. / Hwy 217



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*Our Reliable Water*

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## Construction Photos – MPE\_1.2

Current area of work for 48-inch waterline (night work) between Hwy 217 offramp and Hall Blvd.



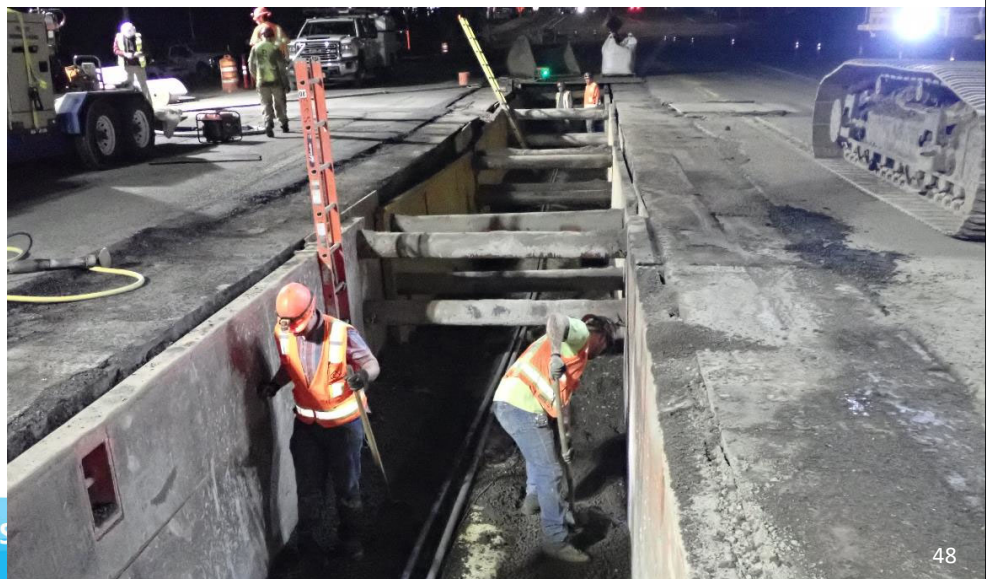
Willamette Water  
Our Reliable Water

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## Construction Photos – MPE\_1.2

Installation of 48-inch waterline at night



Willamette Water  
Our Reliable Water

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## Construction Photos – MPE\_1.2

Trench area restoration at end of night shift for 48-inch waterline installation



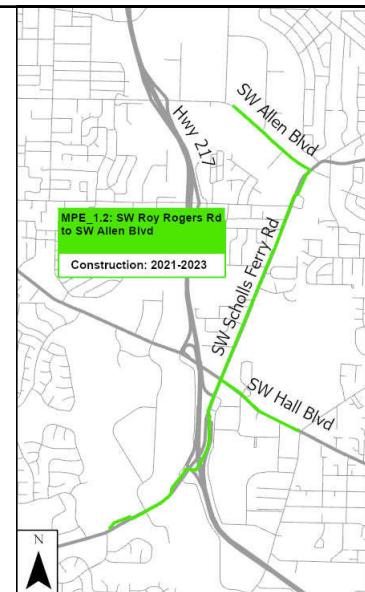
Willamette Water  
Our Reliable Water

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## MPE\_1.2 Notable Topics

- External Coordination
  - Coordinating with ODOT on adjacent projects: may delay completion of MPE\_1.2
- Potential Claims
  - None
- Delivery Challenges
  - None



Willamette Water Supply  
Our Reliable Water

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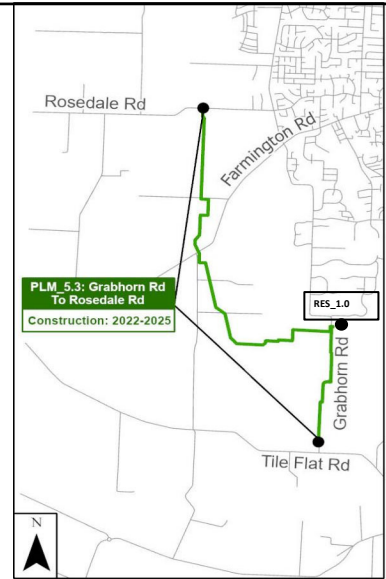
50

## RES\_1.0 / PLM\_5.3

Contractor: Hoffman-Fowler JV  
 Designer: Black & Veatch / Jacobs

### Current and Planned Activities:

- Mobilized temporary trailers to RES site
- Grubbing and initial earthwork at reservoir and staging area #1 sites
- Temporary haul road construction
- Construction of access road from Rosedale Rd. to north end of 66-inch waterline alignment



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## Construction Photos – RES\_1.0

Initial earthwork at RES site



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## Construction Photos – RES\_1.0

Grubbing on Staging Area #1



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Our Reliable Water

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## Construction Photos – RES\_1.0

Temporary haul road construction



Willamette Water S  
Our Reliable Water

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## Construction Photos – RES\_1.0

Temporary culvert  
at Rosedale Rd.  
access point



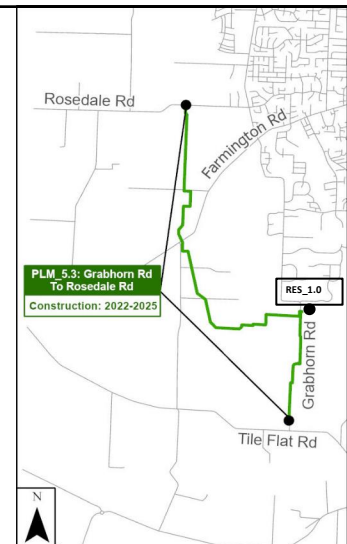
Willamette Water Supply  
Our Reliable Water

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## RES\_1.0/PLM\_5.3 Notable Topics

- External Coordination
  - No issues
- Potential Claims
  - None
- Delivery Challenges
  - Easement acquisition delaying work in some areas



Willamette Water Supply  
Our Reliable Water

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## WTP\_1.0

Contractor: Sundt Construction, Inc.  
Designer: CDM Smith

### Current and Planned Activities:

- NTP issued April 11, 2022
- Mobilization of temporary trailers to site
- Pioneer road construction
- Temporary utilities
- Site grubbing



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## Construction Photos - WTP\_1.0

WTP\_1.0 site



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## Construction Photos - WTP\_1.0

Grading for temporary trailers at WTP\_1.0 site

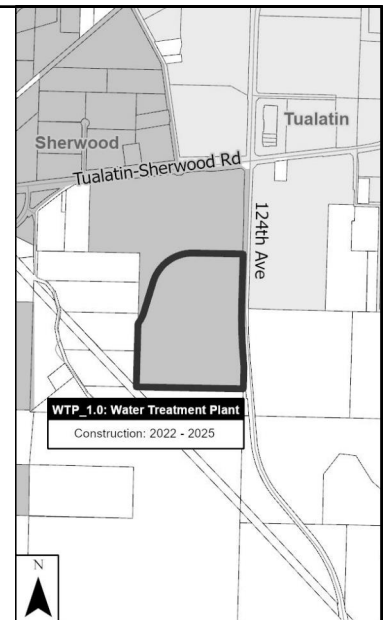


Willamette Water  
Our Reliable Water

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## WTP\_1.0 Notable Topics

- External Coordination
  - No issues
- Potential Claims
  - None
- Delivery Challenges
  - None



Willamette Water Supply  
Our Reliable Water

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**QUESTIONS**

Willamette Water Supply  
*Our Reliable Water*

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**TUALATIN VALLEY**  
WATER DISTRICT

**Customer Information System (CIS) Update**

Andrew Carlstrom, Customer Service Manager  
*May 3, 2022*



**TUALATIN VALLEY**  
WATER DISTRICT

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## Customer Information System (CIS)

### Project Purpose

- **Replace TVWD’s aging, customized Utility Billing (“UB”) system with a commercial, off-the-shelf Customer Information System (Open Smartflex).**
  - Project will continue to build on the collaborative business relationship between TVWD and Clean Water Services.
  - TVWD/CWS are sharing costs, decision-making, and ownership of the new CIS.
  - TVWD is serving as the CIS “managing agency.”
  - CIS is a foundational modernization implementation for TVWD.

## Costs

- **Implementation estimate at implementation start: \$9.5 million**
  - External costs
    - Including CIS vendor, consultants, project space
  - Labor for staff allocated to project
  - Contingency
- **Current implementation estimate: \$12 million**
  - Additional external costs incurred from vendor, project consultants
  - Estimate to be updated in May, including labor, change requests for go-live
  - Primary cost driver: two schedule extensions
    - Aggressive initial project schedule
    - Delays in data conversion, integrations had downstream effects

## TVWD/CWS CIS Phasing and Agreements Overview

### Phase I IGA

- Initiation through vendor selection, contract negotiation
- Authorized by both TVWD and CWS Boards June 2018

**Status: Complete**

### Phase II IGA

- Implementation, stabilization of new TVWD/CWS CIS solution
- Framework for sharing external, labor costs
- TVWD, CWS Board authorization requests, April 2020

**Status:**  
External costs being shared.  
Labor approach not resolved but in process.

### Phase III IGA

- Ongoing TVWD/CWS operations with new CIS

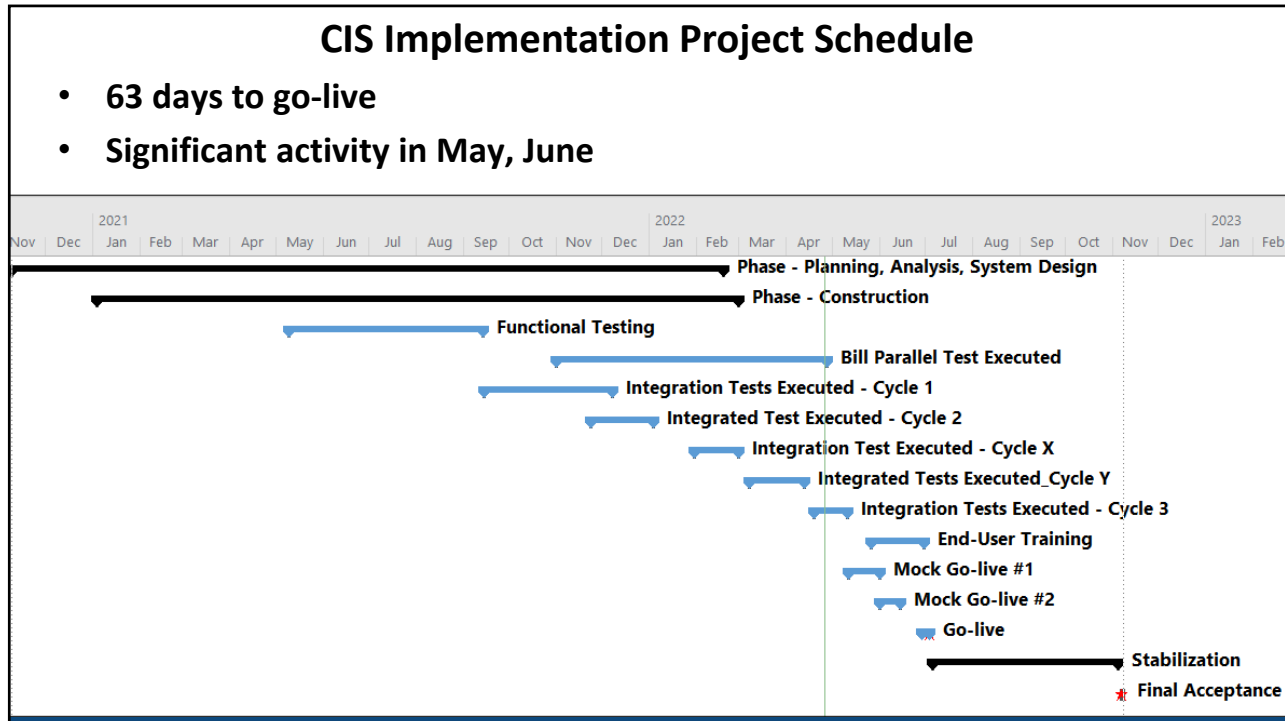
**Status:**  
Finance teams working on “interim” cost sharing for 2022-2023. IGA III not yet started.

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## On Track for July 5 Go-Live

- **No showstopper defects**
- **More than 1,500 test cases completed**
- **Final integration testing in process**
- **KPIs for data conversion have been met/exceeded**
- **Parallel bill testing yielded 99.99% accuracy**
- **Financial balancing review in process**
- **Training logistics, preparation in process**
- **First mock go-live exercise begins May 11**

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### Project Status

●
●
●

| Overall Project                 |          |       |  |
|---------------------------------|----------|-------|--|
| Project Areas                   | Schedule | Scope | Issues, Risks, Comments                  |
| Overall Project                 | ● Y      |       |  |
| Planning                        | ● C      | ● C   |  |
| Analysis                        | ● C      | ● C   |  |
| Design                          | ● C      | ● C   |  |
| Configuration & Development     | ● C      | ● C   |  |
| Conversion Design & Development | ● C      | ● C   |  |
| Functional Testing              | ● C      | ● C   |  |
| Training                        | ● G      | ● G   | Final training material review underway  |
| Conversion                      | ● G      | ● G   | Load accuracy and A/R targets exceeded   |
| Integration Testing             | ● G      | ● G   | Final integration test cycle is underway |
| Deployment                      | ● G      | ● G   | Cutover plan/checklist reviews underway  |

○ = Not Started  
 ● = Complete  
 ● = On Track  
 ● = Late, With Mitigation  
 ● = Delayed, No Mitigation

68 | Board Work Session - May 3, 2022
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## June 2022 CIS User Training

### Sample of Training Course Topics for CIS Users

|  |
|--|
| Introduction to Open Smartflex                   |
| Customer Service Essentials                      |
| Billing Topics, Including Cycle Billing          |
| Cityworks Functionality                          |
| Topics for Finance                               |
| Topics for Engineering                           |
| Topics for Clean Water Services                  |
| Cashiering                                       |
| Customer Inquiries                               |
| Approvals  |
| CSR Analyst Topics                               |
| Customer Portal                                  |
| Adjustments, Collections, and Payment Management |

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# QUESTIONS?

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# Communications and Outreach for Rate Advisory Committee and Rate Setting

Andrea Watson  
Communications and Public Affairs Supervisor



71 | Board Work Session - May 3, 2022




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## COMMUNICATIONS AND OUTREACH

Objectives

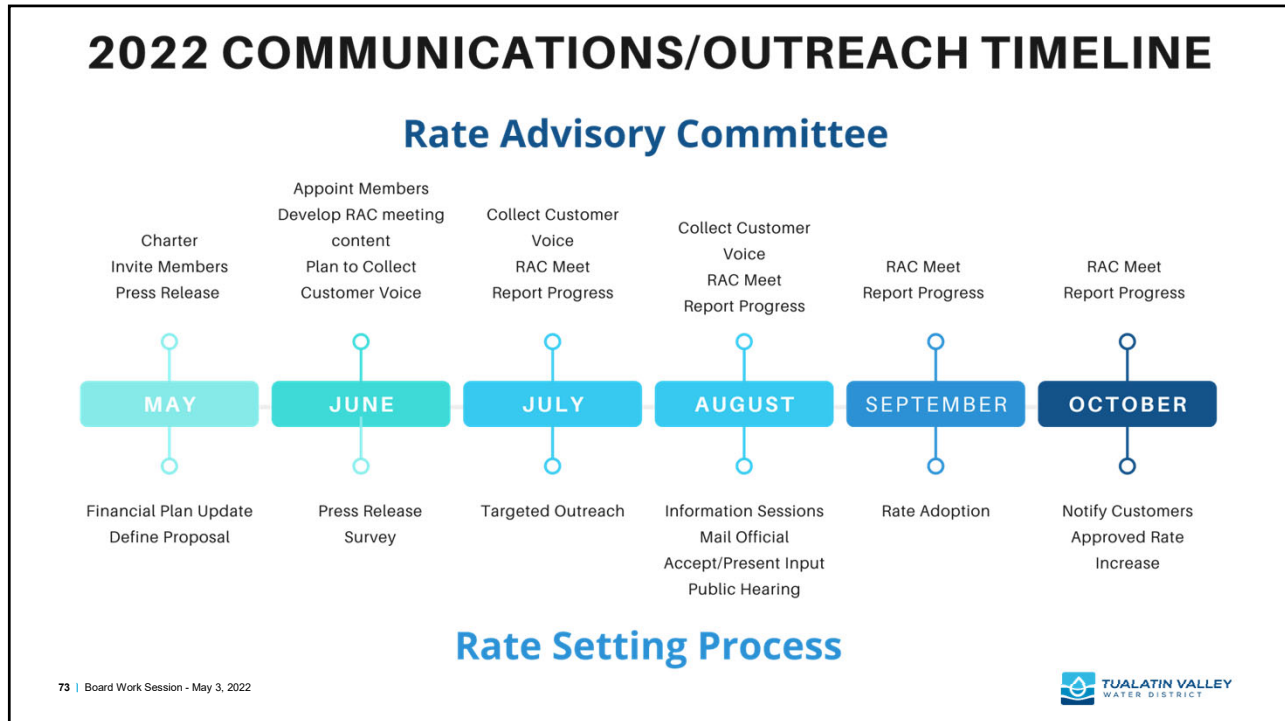
| Rate Advisory Committee   | Rate Setting Process  |
|---|---|
| <ul style="list-style-type: none"> <li>Identify membership</li> <li>Complete Charter</li> <li>Appoint Members</li> <li>Report Progress</li> <li>Receive Recommendations</li> <li>Report Accomplishments of RAC</li> <li>Report on Actions taken from the recommendation list</li> </ul> | <ul style="list-style-type: none"> <li>Inform Customers of Proposal, opportunities to be involved</li> <li>Meet required notifications as stated in the statutory process</li> <li>Collect and report customer input</li> <li>Conduct information sessions and outreach at events</li> <li>Targeted outreach for key customers</li> </ul> |

72 | Board Work Session - May 3, 2022

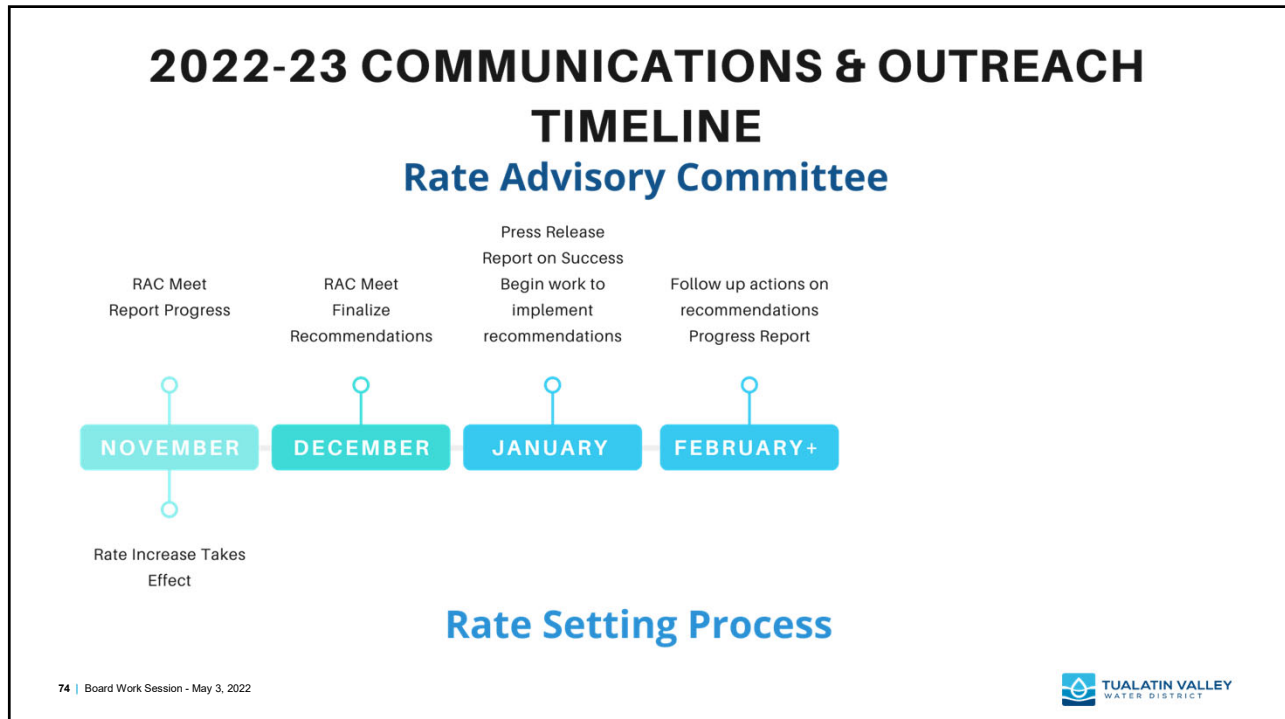


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## 2022 Board Communications Log

Commissioner Questions/Topics: (includes research requests directed to staff via email or at Board meeting)

- Initial request sent to Tom (copy Board President)
- Tom responds with projected timeframe for response and any other logistical info
- Answer shared with the full Board during work sessions

| Item Number | Requestor | Subject | Date Submitted | Response Date | Date Information Shared with Full Board |
|-------------|-----------|---------|----------------|---------------|---|
|             |           |         |                |               |   |
|             |           |         |                |               |   |
|             |           |         |                |               |   |

Board Committee Information:

- Meeting notes/handouts shared with the full Board during work sessions

| Meeting Date                                  | Notes   | Date Information Shared with the Full Board |
|---|---|---|
| <b>Finance Committee</b>                      |   |   |
| January 13                                    | Meeting synopsis prepared by Katherine Lipari DeSau | January 31, 2022                            |
| March 10                                      | Meeting synopsis prepared by Debbie Carper          | April 5, 2022                               |
| April 26                                      | Meeting synopsis prepared by Debbie Carper          | May 3, 2022                                 |
| <b>Policy and Board Development Committee</b> |   |   |
|   |   |   |
|   |   |   |
| <b>Strategic Planning Committee</b>           |   |   |
|   |   |   |
| <b>Water Supply Committee</b>                 |   |   |
| January 12                                    | Meeting synopsis prepared by Katherine Lipari DeSau | January 31, 2022                            |



**Finance Committee Meeting  
April 26, 2022**

Meeting Notes

The meeting started at 2:01 p.m.

Attendees: Commissioners Bernice Bagnall and Jim Duggan

Staff Present: Tom Hickmann, P.E., Chief Executive Officer; Paul Matthews, Chief Financial Officer; Andrew Carlstrom, Customer Service Manager; Andrea Watson, Communications and Public Affairs Supervisor; Joe Healy, Senior Management Analyst; Debbie Carper, District Recorder

1. Update on Customer Information System (CIS) Project

Mr. Carlstrom reviewed the CIS project purpose, implementation project schedule, status of project areas and said the project is on track for a July 5 go-live (see attached presentation). He also listed some of the upcoming training course topics, described updated project costs and provided information on completed and upcoming intergovernmental agreements with Clean Water Services.

In response to a question, Mr. Carlstrom clarified that labor costs are internal staff costs, mostly from staff completely dedicated to the project whose positions have been backfilled. Mr. Matthews added staff uses specific project numbers to record the time spent on the CIS project on their timesheets and the costs include the fully loaded hourly staff rates (i.e., raw salary, labor burden and indirect overhead costs).

2. Review of Cost of Living Adjustment (COLA) Policy

Mr. Hickmann said he has talked with staff numerous times about concern over the projected increase to personnel costs driven by how inflation factors into the pay adjustment formula.

Mr. Matthews described the cost concerns in detail, noting the Bureau of Labor and Statistics' most recent report shows year-over-year inflation is at 8.4% for the month of March (see attached presentation). He graphically showed how the COLA floor has compared to inflation and how it has benefited employees in times of low inflation.

Mr. Hickmann said his recommendation is a 5% cap with the Board taking action by resolution to make the decision easier to track for future discussions. He noted the pay adjustment formula will be evaluated during the upcoming classification and compensation study.

Commissioners advised staff to include language in the draft resolution that indicates the classification and compensation study results may override the resolution and that any dramatic inflationary increases in the future would trigger additional Board discussion. Mr. Hickmann said the resolution would require Board discussion any time the COLA floor or ceiling is reached.

Commissioners agreed a 5% COLA ceiling is acceptable to include in the draft resolution for Board consideration.

### 3. Discuss Potential Contract Extension for Moss Adams

Mr. Matthews noted Board Policies require Board approval of contracts with external auditors, and staff recommends extending the contract with Moss Adams to provide continuity in anticipation of completion of the Willamette Water Supply System.

Commissioners were supportive of extending the Moss Adams contract and placing the item on the Consent Agenda for action at the May Board meeting.

### 4. Discuss Rate Advisory Committee (RAC) Membership and Outreach Strategy

Ms. Watson indicated the outreach strategies for RAC membership and the rate setting process will be designed around what the District wants to accomplish with each. She shared a draft outreach timeline (see attachment).

Mr. Matthews noted staff will follow the usual process of opening the rate public hearing at the August Board meeting and take comments through early September before closing the hearing and considering adopting new rates at the September meeting. He indicated the RAC will focus on making recommendations to the Board on topics like affordability and the fixed and variable rate components rather than the size or frequency of rate increases.

Commissioner Bagnall suggested holding a Talkin' Water virtual forum on the RAC.

Commissioners expressed support for staff's RAC membership and rate setting outreach plans.

There was discussion about various federal and District customer assistance funding programs.

The meeting adjourned at 3:15 p.m.



# **Customer Information System (CIS) Update TVWD Board Finance Committee**

**April 26, 2022**

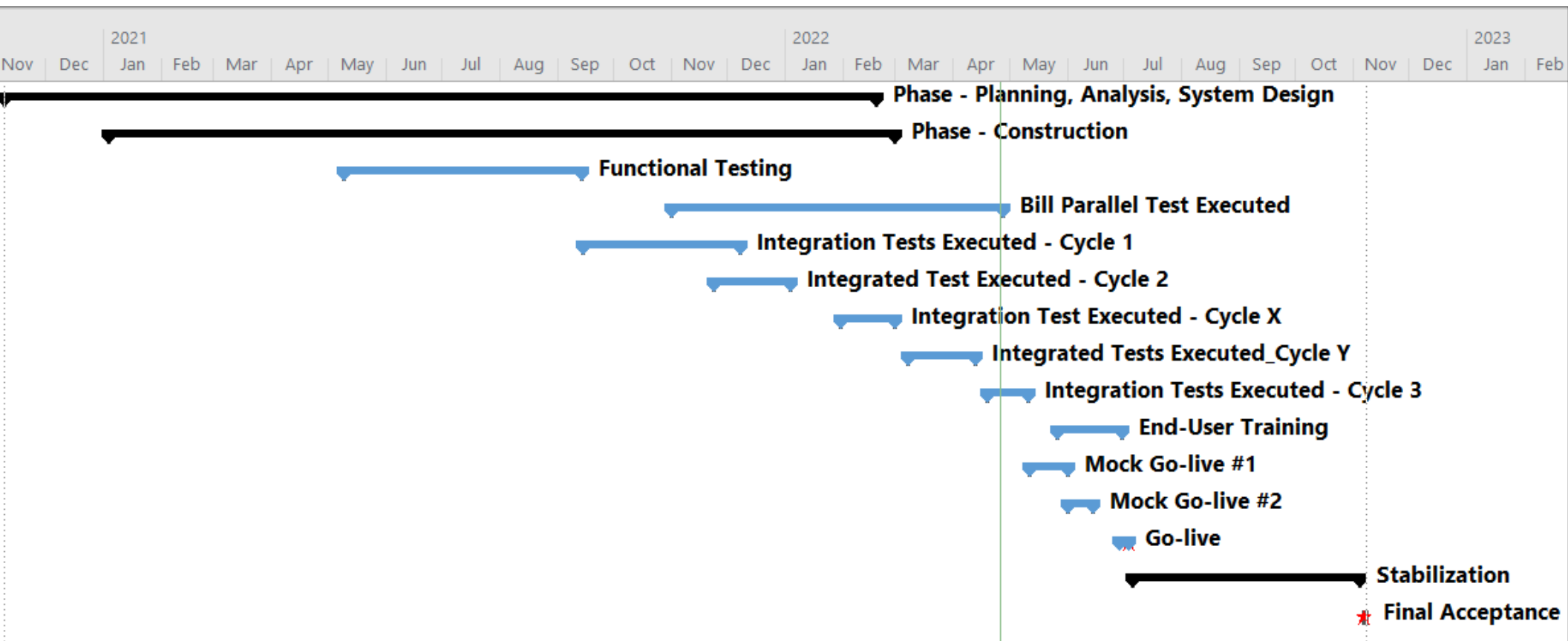
# Customer Information System (CIS)

## Project Purpose

- **Replace TVWD's aging, customized Utility Billing ("UB") system with a commercial, off-the-shelf Customer Information System (Open Smartflex).**
  - Project will continue to build on the collaborative business relationship between TVWD and Clean Water Services.
  - TVWD/CWS are sharing costs, decision-making, and ownership of the new CIS.
  - TVWD is serving as the CIS "managing agency."
  - CIS is a foundational modernization implementation for TVWD.

# CIS Implementation Project Schedule

- 70 days to go-live
- Significant activity in May, June



# Project Status



| Overall Project <span style="float: right;">Y</span> |          |       |   |
|--|----------|-------|---|
| Project Areas  | Schedule | Scope | Issues, Risks, Comments                 |
| Planning   | C        | C     |   |
| Analysis   | C        | C     |   |
| Design   | C        | C     |   |
| Configuration & Development                          | C        | C     |   |
| Conversion Design & Development                      | C        | C     |   |
| Functional Testing                                   | C        | C     |   |
| Training   | G        | G     | Final training material review underway |
| Conversion   | G        | G     | Load accuracy and A/R targets exceeded  |
| Integration Testing                                  | Y        | G     | ITC3 is underway, 6 bill cycles planned |
| Deployment   | G        | G     | Cutover plan/checklist reviews underway |

  = Not Started  
 C = Complete  
 G = On Track  
 Y = Late, With Mitigation  
 R = Delayed, No Mitigation



## On Track for July 5 Go-Live

- **No showstopper defects**
- **More than 1,500 test cases completed**
- **KPIs for data conversion have been met/exceeded**
- **Parallel bill testing yielded 99.99% accuracy**
- **Financial balancing returning few differences that cannot be explained**
- **Training logistics, preparation in progress**
- **“Run book” discussions underway for Mock go-live exercises**

# June 2022 CIS User Training

| Sample of Training Course Topics for CIS Users   |
|--|
| Introduction to Open Smartflex                   |
| Customer Service Essentials                      |
| Billing Topics, Including Cycle Billing          |
| Cityworks Functionality                          |
| Topics for Finance                               |
| Topics for Engineering                           |
| Topics for Clean Water Services                  |
| Cashiering                                       |
| Customer Inquiries                               |
| Approvals  |
| CSR Analyst Topics                               |
| Customer Portal                                  |
| Adjustments, Collections, and Payment Management |

## Costs

- **Implementation estimate at implementation start: \$9.5 million**
  - External costs
    - Including CIS vendor, consultants, project space
  - Labor for staff allocated to project
  - Contingency
- **Current implementation estimate: \$12 million**
  - Additional external costs incurred from vendor, project consultants
  - Estimate to be updated in May, including labor
  - Primary cost driver: two schedule extensions
    - Aggressive initial project schedule
    - Delays in data conversion, integrations had downstream effects

# TVWD/CWS CIS Phasing and Agreements Overview

## Phase I IGA

- Initiation through vendor selection, contract negotiation
- Authorized by both TVWD and CWS Boards June 2018

**Status: Complete**

## Phase II IGA

- Implementation, stabilization of new TVWD/CWS CIS solution
- Framework for sharing external, labor costs
- TVWD, CWS Board authorization requests, April 2020

**Status:**  
**External costs being shared.**  
**Labor approach not resolved but in process.**

## Phase III IGA

- Ongoing TVWD/CWS operations with new CIS

**Status:**  
**Finance teams working on “interim” cost sharing for 2022-2023. IGA III not yet started.**



**QUESTIONS?**



# Review of COLA Policy

*Board Finance Committee*

April 26, 2022

# Personnel Services Immediate Concerns

## Pay Adjustment Formula

- Includes CPI as a factor in the formula
- Multiplied by other factors to determine pay increases
- Multiplier effect has profound impacts during periods of high inflation
- 2 percent floor protects employees during periods of low inflation

## Pay Adjustment Formula

$$\text{Increase} = \frac{\text{Score}}{2.75} \times \frac{1.20}{\text{Compa-Ratio}} \times \% \Delta \text{CPI}$$

### Score

- Score assessed by supervisor during performance review
- Range from 1 to 5 with 3 being “meets expectations”

### Compa-Ratio

- Percentage measure of employee’s current pay to the middle of range
- Range from 0.80 (bottom of grade) to 1.20 (top of grade)

### CPI

- CPI-U All items – West - Size Class A
- Measured through May of year as reported by Bureau of Labor Statistics in June



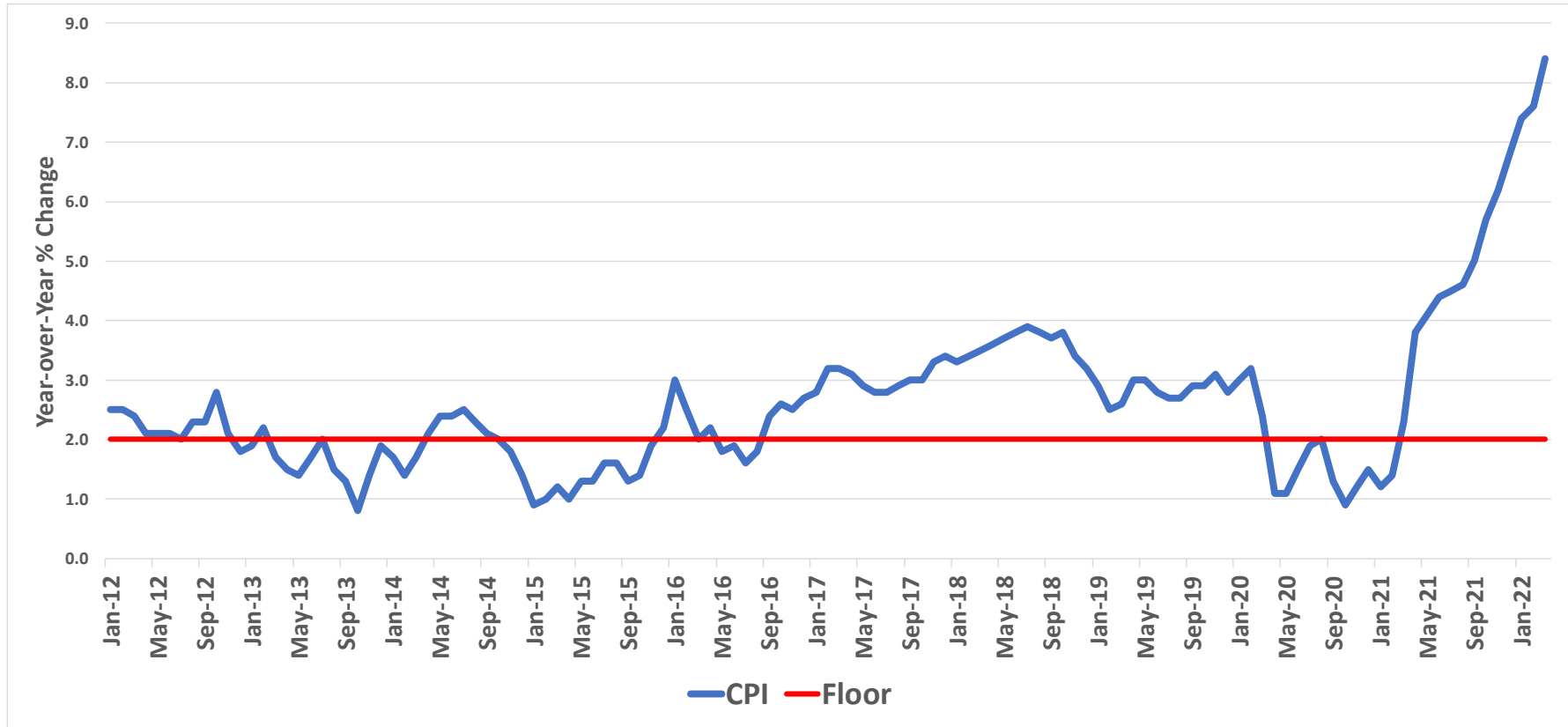
## Pay-for-Performance Formula

| Compa-Ratio         | Score | CPI   | Increase | Merit Portion |
|---------------------|-------|-------|----------|---------------|
| <u>Early Career</u> |       |       |          |               |
| 0.80                | 3.00  | 2.00% | 3.27%    | 1.27%         |
| 0.80                | 3.00  | 7.40% | 12.11%   | 4.71%         |
| <u>Mid-Career</u>   |       |       |          |               |
| 1.00                | 3.00  | 2.00% | 2.62%    | 0.62%         |
| 1.00                | 3.00  | 7.40% | 9.69%    | 2.29%         |
| <u>Late Career</u>  |       |       |          |               |
| 1.10                | 3.00  | 2.00% | 2.38%    | 0.38%         |
| 1.10                | 3.00  | 7.40% | 8.81%    | 1.41%         |

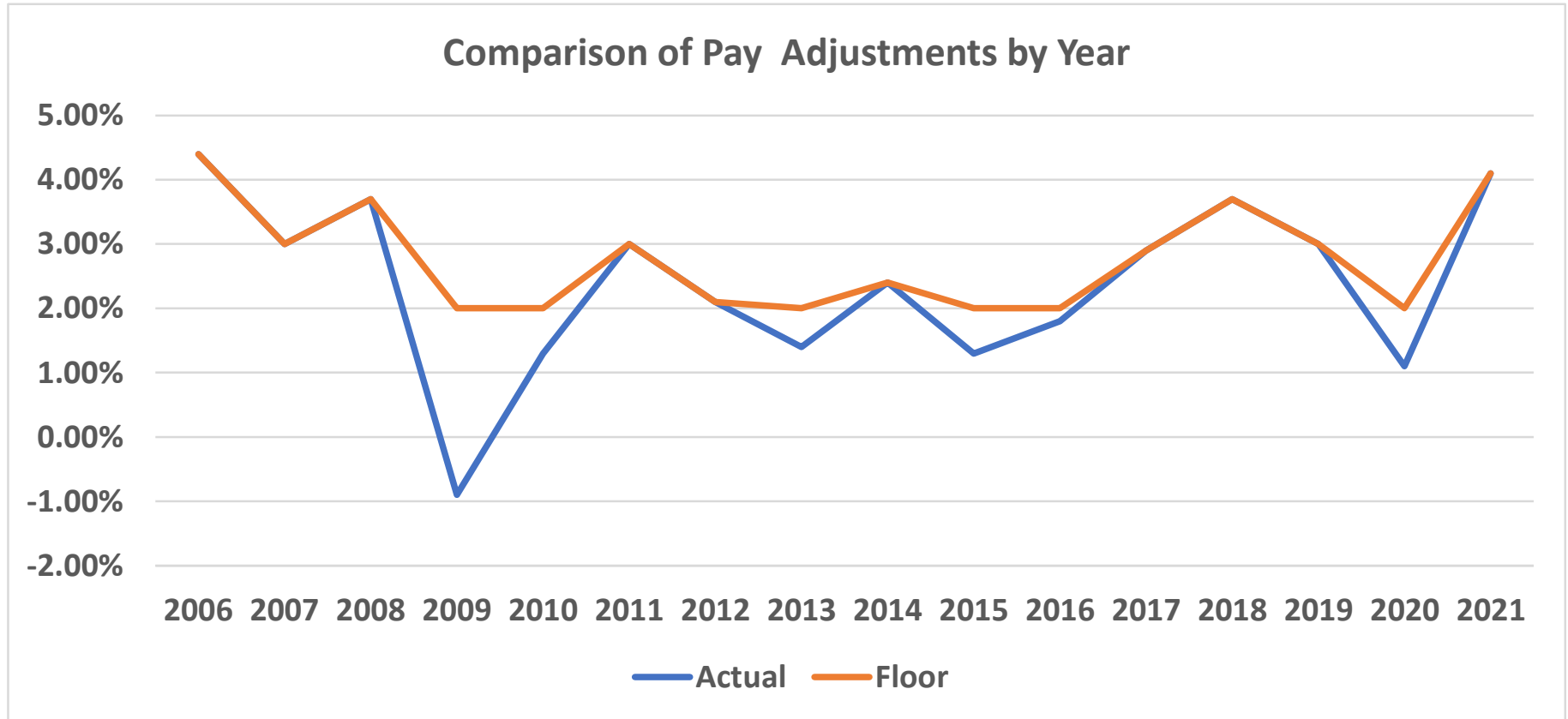
## Consideration of COLA Cap

| CPI   | Estimated Average Pay Increase |
|-------|--------------------------------|
| 3.00% | 4.7%                           |
| 5.00% | 7.9%                           |
| 6.00% | 9.6%                           |
| 7.00% | 11.2%                          |
| 8.00% | 12.8%                          |
| 8.40% | 13.5%                          |
| 9.00% | 14.4%                          |
| 9.50% | 15.3%                          |

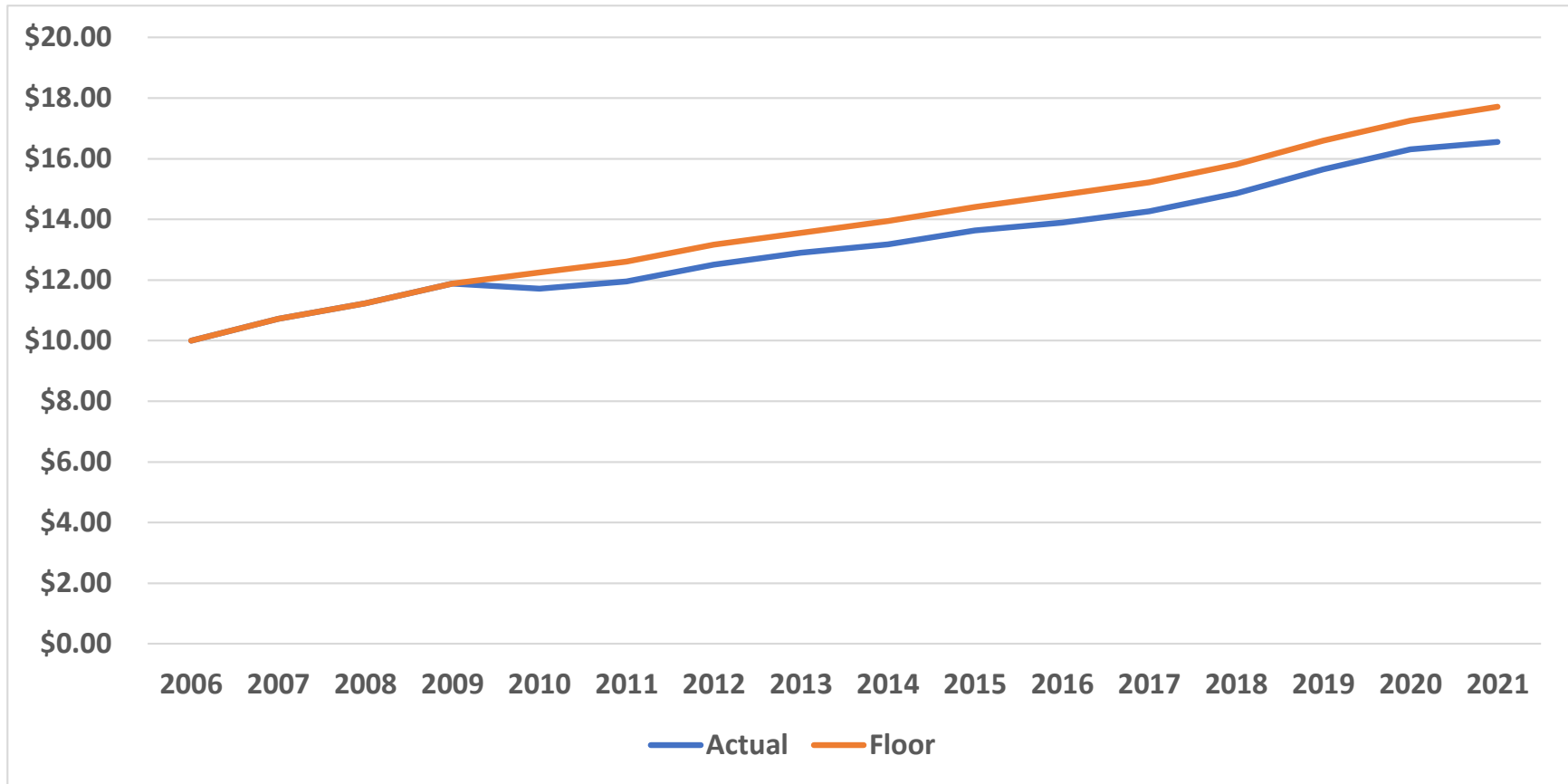
# CPI Used for Salary Adjustments



# Affect of Salary Floor



# Hypothetical Hourly Rate Increases



## Consideration of COLA Cap

| CPI   | Estimated Average Pay Increase |
|-------|--------------------------------|
| 3.00% | 4.7%                           |
| 5.00% | 7.9%                           |
| 6.00% | 9.6%                           |
| 7.00% | 11.2%                          |
| 8.00% | 12.8%                          |
| 8.40% | 13.5%                          |
| 9.00% | 14.4%                          |
| 9.50% | 15.3%                          |

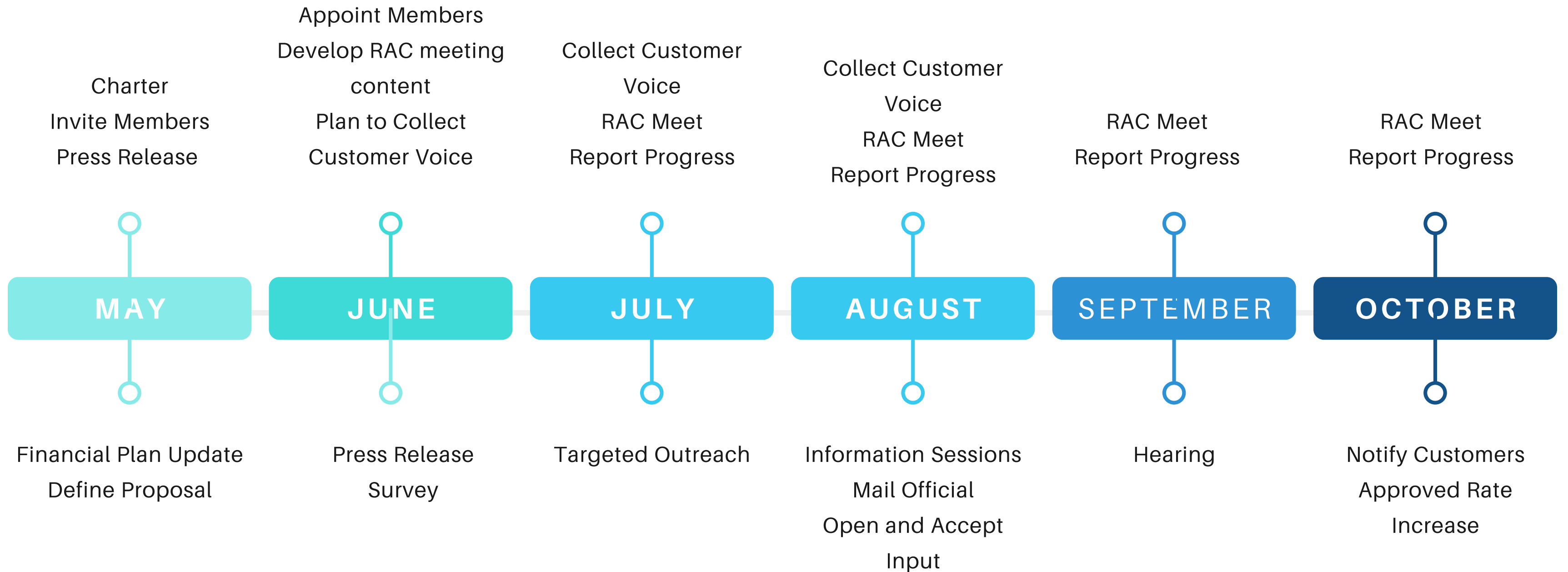


# Discussion, Questions and Answers



# COMMUNICATIONS/OUTREACH TIMELINE

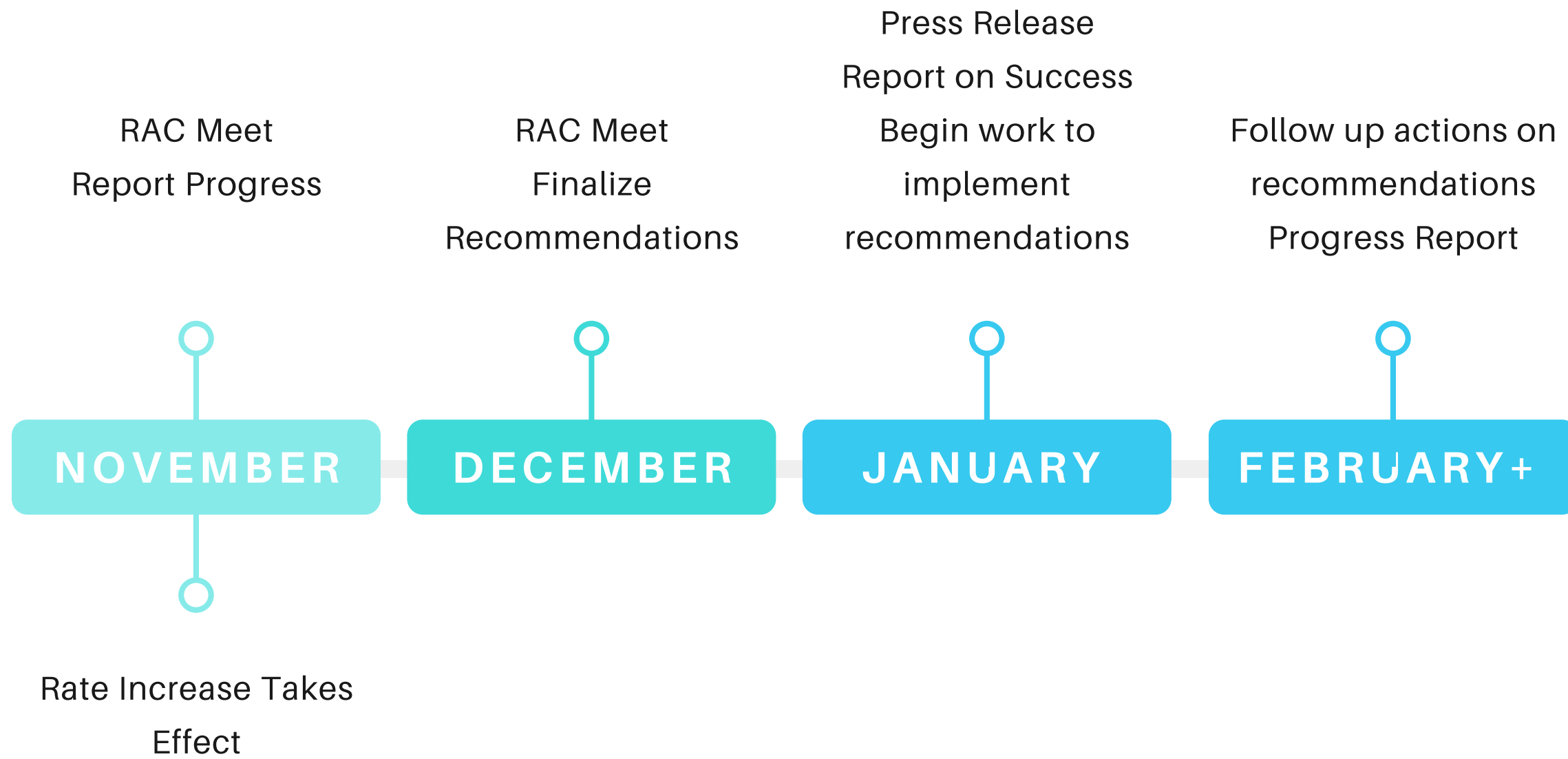
## Rate Advisory Committee



## Rate Setting Process

# COMMUNICATIONS/OUTREACH TIMELINE

## Rate Advisory Committee



## Rate Setting Process



**TUALATIN VALLEY**  
WATER DISTRICT

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**Date:** May 18, 2022  
**To:** Board of Commissioners  
**From:** Paul L. Matthews, Chief Financial Officer  
**Subject:** Extension of Audit Services Agreement for Independent Auditor

**Requested Board Action:**

Consider adopting a resolution authorizing the Chief Executive Officer to extend the audit services agreement with Moss Adams LLP for two additional years.

**Key Concepts:**

- The District's agreement with its independent auditors expires on December 31, 2022, unless extended by the Board of Commissioners.
- The Board's Finance Committee reviewed management's recommendation to extend the audit services agreement with Moss Adams LLP for two additional years.
- The Board's Finance Committee recommended extension of the audit services agreement with Moss Adams LLP for two additional years.
- The proposed resolution authorizes the Chief Executive Officer to extend the audit services agreement.

**Background:**

On June 1, 2019, the District executed an agreement with Moss Adams LLP to provide independent auditing services for the District and the joint ventures the District manages. The term of the agreement was three years with an option to extend the agreement for an additional two years. Under Board Policies, the extension of the agreement requires approval of the Board of Commissioners.

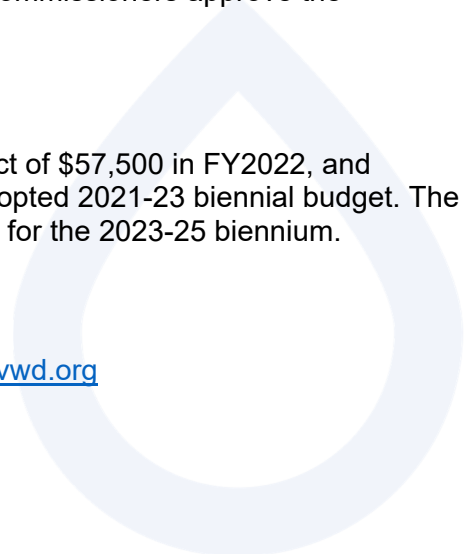
Moss Adams has completed the District's independent audits as specified in the agreement. Furthermore, Moss Adams has completed its services in an efficient and economical manner. Based on the high quality of services received from Moss Adams, staff recommends that the Board of Commissioners approve the extension of the audit service agreement for two additional years.

**Budget Impact:**

The agreement with Moss Adams estimates a cost for services to the District of \$57,500 in FY2022, and \$59,000 in FY2023. The costs for FY2022 were included in the District's adopted 2021-23 biennial budget. The estimated cost for FY2023 will be included in the District's proposed budget for the 2023-25 biennium.

**Staff Contact Information:**

Paul L. Matthews; Chief Financial Officer; 503-848-3017; [paul.matthews@tvwd.org](mailto:paul.matthews@tvwd.org)






David Shick; Controller; 503-848-3032; [david.shick@twwd.org](mailto:david.shick@twwd.org)

**Attachments:**

Proposed resolution

Agreement for Auditing Services with Moss Adams LLP

**Leadership Team Initials:**

|                               |   |                               |     |
|-------------------------------|---|-------------------------------|-----|
| Chief Executive Officer (AIC) |  | Customer Service Manager      | N/A |
| Chief Engineer                | N/A   | IT Services Director          | N/A |
| Chief Financial Officer       |  | Human Resources Director      | N/A |
| General Counsel               |  | Water Supply Program Director | N/A |





**TUALATIN VALLEY**  
WATER DISTRICT

## RESOLUTION NO. 05-22

A RESOLUTION AUTHORIZING THE CHIEF EXECUTIVE OFFICER TO EXTEND THE AUDIT SERVICES AGREEMENT WITH MOSS ADAMS LLP FOR TWO ADDITIONAL YEARS

WHEREAS, as an Oregon municipal corporation, the Tualatin Valley Water District (District) is required to conduct annual audits by auditors licensed to conduct municipal audits in Oregon; and

WHEREAS, the District has entered into an audit services agreement (Agreement) with Moss Adams LLP to perform audits of the District's annual financial statements for the fiscal years ended June 30, 2019, 2020, and 2021; and

WHEREAS the Agreement allows the Board of Commissioners to extend it for an additional two years, to include audits for the fiscal years ended June 30, 2022, and June 30, 2023; and

WHEREAS the Finance Committee of the Board of Commissioners recommends extending the Agreement for two additional years.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF THE TUALATIN VALLEY WATER DISTRICT THAT:

Section 1: The District's Chief Executive Officer, or designee, is authorized to extend the Agreement between Tualatin Valley Water District and Moss Adams LLP, attached as Exhibit 1, through December 31, 2023.

Approved and adopted at a regular meeting held on the 18<sup>th</sup> day of May 2022.

\_\_\_\_\_  
Todd Sanders, President

\_\_\_\_\_  
Jim Doane, Secretary



**AGREEMENT NO. 2019-44  
TUALATIN VALLEY WATER DISTRICT**

**AUDIT SERVICES AGREEMENT**

THIS AUDIT SERVICES AGREEMENT ("Agreement") is effective June 1, 2019, by and between Tualatin Valley Water District ("District") and Moss Adams, LLP ("Auditor") with offices in Portland, Oregon.

**RECITALS**

WHEREAS, District requires the services of an individual or entity with the particular training, ability, knowledge, and experience possessed by Auditor for providing financial audit services

The parties agree that Auditor shall provide the District with such services, subject to certain conditions.

The parties agree to set forth the terms and conditions of their agreement in this Audit Services Agreement ("Agreement").

**AGREEMENT**

**1. SERVICES TO BE PERFORMED.** Auditor shall conduct financial audit services as set forth in Exhibit A, Scope of Services. These services shall be performed with the same degree of care, skill, diligence, competency and knowledge which is ordinarily exhibited and possessed by other professionals in good standing in the same or similar field and community as Auditor. The District shall provide audit work papers, support and services to be performed by District staff as needed and as outlined in Exhibit C.

**2. EFFECTIVE DATE AND DURATION OF AGREEMENT.** This Agreement shall become effective on the date shown above. Unless earlier terminated, this Agreement shall remain in full force and effect until December 31, 2022, unless extended annually for an additional two (2) years upon District recommendation and Board approval.

**3. PAYMENT.** District agrees to pay Auditor fees relating to Auditor's performance under this Agreement, as set forth in Exhibit B, Auditor's Fee Proposal.

Compensation under this Agreement is as follows and shall not exceed these dollar amounts unless additional work is assigned over what was originally agreed.

For Fiscal Year July 1, 2018 through June 30, 2019: \$53,000.00, fixed.

For Fiscal Year July 1, 2019 through June 30, 2020: \$54,500.00, fixed.

For Fiscal Year July 1, 2020 through June 30, 2021: \$56,000.00, fixed.

For Fiscal Year July 1, 2021 through June 30, 2022: \$57,500.00, if Agreement extended.

For Fiscal Year July 1, 2022 through June 30, 2023: \$59,000.00, if Agreement extended.



Auditor will charge the District for hours worked only. Any amount over this shall be preapproved by the District via written amendment to this Agreement. Out of Pocket costs are included in the annual fees. Payment terms are Net 30. Auditor shall present District with one invoice monthly. Should the District and Auditor agree to extend the term for an additional two (2) years, the rates listed in Article 3 for the last two (2) years of the Agreement shall apply.

**4. CHANGES.** Neither this Agreement, including any of the contract documents, shall be waived, altered, modified, supplemented, extended or amended, in any manner whatsoever, except by written instrument, executed by both parties. No changes to the Agreement will be effective until approved in writing by District.

**5. INDEPENDENT CONSULTANT STATUS.** Auditor shall be free from direction and control over the means and manner of providing the labor or service, subject only to the specifications of the desired results. Auditor is responsible for obtaining all assumed business registrations or professional occupation licenses required by state or local law. Auditor shall furnish the tools or equipment necessary for the contracted labor or services. Auditor certifies that Auditor is an independent contractor and will be responsible for any federal or state taxes applicable to any payments made under this agreement.

**6. SUBCONTRACTORS, ASSIGNMENT; SUCCESSORS-IN-INTEREST.** Except as specifically authorized in the contract documents, Auditor shall not make any subcontract with any other party for furnishing any of the work and services contemplated under the Agreement documents or assign or transfer any interest in this Agreement, without obtaining the express prior written consent of District.

**7. NO THIRD-PARTY BENEFICIARIES.** District and Auditor are the only parties to this Agreement and are the only parties entitled to enforce its terms.

**8. COMPLIANCE WITH APPLICABLE LAW.**

**8.1. Generally.**

Auditor shall keep itself fully informed of and shall fully comply with all federal, state, regional, and local laws, rules, regulations, ordinances, and orders pertaining in any manner to this Contract and the rules, regulations and orders of any agency or authority having jurisdiction over the work under this Contract or persons employed or engaged therein. Auditor shall pay all taxes, including federal, state, regional, county, and city taxes, and taxes of any other governmental entity, applicable to the services performed or materials provided under this Contract. All permits, licenses, and fees necessary for prosecution and completion of the Work shall be secured and paid for by Auditor, unless otherwise specified by District.

The following paragraphs include, without limitation, the standard contract clauses that are required in every public contract in accordance with the Oregon Revised Statutes. As such these paragraphs are applicable, to the extent they apply, to this Contract. This Contract shall include by reference any other standard contract clauses required by federal, state, and local laws, ordinances, and regulations.

**8.2. Prompt Payment.**

Auditor shall promptly pay as due all of its obligations arising out of or in connection with the Work, including, but not limited to, payments (1) to all persons supplying to Auditor labor, equipment, services, or materials for the performance of the Work; (2) of all contributions or amounts due the Industrial Accident Fund from Auditor or any subcontractor incurred in the performance of the Work; and (3) to the Department of Revenue of all sums withheld from employees under ORS 316.167.

**8.3. Hours of Labor.**

Auditor shall pay employees at least time and a half pay for all overtime in excess of 40 hours in any one week, except for individuals who are excluded under ORS 653.010 to 653.261 or under 29 U.S.C. 201 to 209 from receiving overtime.

**8.4. Workers' Compensation.**

All employers, including Auditor, that employ subject workers who work under this Contract in the state of Oregon shall comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126. Auditor shall ensure that each of its subcontractors complies with these requirements.

**8.5. Prompt Payment for Medical Services.**

Auditor shall promptly make payment, as due, to any person, co-partnership, association, or corporation furnishing medical, surgical, or hospital care services or other needed care and attention, incident to sickness or injury, to the employees of Auditor, of all sums that Auditor agrees to pay for the services and all moneys and sums that Auditor collected or deducted from the wages of employees under any law, contract, or agreement for the purpose of providing or paying for the services.

**8.6. Compliance with Laws/Tax Laws.**

Auditor shall comply with all applicable federal, state, and local laws, statutes, codes, regulations, rules, orders, and rulings including, without limitation, those governing labor, materials, equipment, construction procedures, safety, health, sanitation, and the environment. Auditor agrees to indemnify, hold harmless, reimburse, and defend District from and against any penalties or liabilities arising out of violations of such obligations by Auditor or its subcontractors or suppliers at any tier.

**8.7. Recycled Materials.**

Auditor, in performance of the work under this Contract, shall use recycled paper as defined in ORS 279A.010(1)(ee), recycled PETE products as defined in ORS 279A.010(1)(ff), and other recycled plastic resin products to the maximum extent economically feasible.

**8.8. Liens.**

Auditor shall not permit any lien or claim to be filed or prosecuted against the District on account of any labor or materials furnished.

**9. INSURANCE.** Auditor shall provide to the District certificates of insurance prior to beginning any work under the Agreement documents and shall maintain in full force and effect for the term of this Agreement, at Auditor's expense; comprehensive general liability insurance, automobile liability insurance, umbrella/excess liability insurance and professional liability insurance covering bodily injury, including death, and property damage. Automobile insurance shall include coverage for owned, non-owned or hired vehicles, as applicable for the protection of the Auditor and the District, its members, officers, boards, agents and employees arising out of Auditor's negligence. Auditor agrees to maintain commercial automobile liability insurance in the amount of not less than One Million Dollars (\$1,000,000) combined single limit. General Liability Insurance coverage limits shall be set at not less than One Million Dollars (\$1,000,000) applicable to bodily injury, sickness, or death for any one occurrence, and One Million Dollars (\$1,000,000) for loss of or damage to property for any one occurrence; or a general aggregate of Two Million Dollars (\$2,000,000). Auditor agrees to maintain umbrella/excess liability insurance for comprehensive general liability and automobile liability in the amount of not less than One Million Dollars (\$1,000,000) per occurrence and One Million Dollars (\$1,000,000) in the aggregate. Auditor shall also obtain professional liability insurance for its errors and omissions with limits set at not less than One Million Dollars (\$1,000,000) per claim and Two Million Dollars (\$2,000,000) in the aggregate. Auditor shall name District, its members, officers, boards, agents and employees as additional named insureds on the automobile and general liability policies of insurance for Auditor's negligent acts. The policy shall be issued by a company authorized to do business in the State of Oregon and shall protect Auditor against liability for contractual liability.

The District prefers all insurance coverage to be written on an "occurrence" basis. But if any of the required liability insurance is on "claims made" basis, "tail coverage will be required at expiration of this contract and completion of all work for a duration of 24 months. Auditor shall furnish certification of "tail" coverage as described or continuous "claims made" liability coverage for 24 months following Agreement expiration. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage provided its retroactive date is on or before the effective date of the Agreement. If Continuous "claims made" coverage is used, Auditor shall be required to keep the coverage in effect for a duration of not less than 24 months from the expiration date of the Agreement This will be a condition of the final acceptance of work or services.

The Auditor is the sole proprietor or a partner or is an insured employer for purposes of the Oregon Workers' Compensation law (ORS Ch. 656) and is solely liable for any workers' compensation coverage under this Agreement. If the Auditor has the assistance of other persons in the performance of this Agreement, the Auditor agrees to qualify and remain qualified for the term of this Agreement as an insured employer under ORS 656.407. Auditor shall maintain employers' liability insurance with limits of \$100,000 for each accident, \$100,000 for illness coverage for each employee, and a \$500,000 policy limit.

**10. INDEMNIFICATION.** Auditor shall defend, indemnify, and hold the District, its officers, agents and employees, harmless against all liability, loss, or expenses, including attorney's fees, and against all claims, actions or judgments arising from any liability, loss, expense, claim, action or judgment asserted by a third party for bodily injury (including death) and damage to real or tangible personal property to the extent based upon or arising out of or in connection with the performance by Auditor or its agents, officers or employees under this Agreement insofar as such performance results from Auditor's negligent, reckless, or willful act or omission and Auditor's breach of sections 5, 6, 8, 9, 11, 14 and 16 of this Agreement. This indemnity does not include claims that arise from any negligent, reckless or willful act or omission of the District. In the event of claim for which the District may seek indemnification hereunder, the District shall provide Auditor with prompt written notice of such claim and cooperate with Auditor in handling the claim. The Auditor shall be entitled to control the handling of such claim and to defend or settle any such claim in its sole discretion with counsel of its own choosing. This indemnification obligation shall continue beyond the term of this Agreement as to any acts or omissions occurring under this Agreement or any extension of this Agreement.

**11. CONFIDENTIALITY.** No reports, information and data given to or prepared or assembled by Auditor under the contract documents shall be made available to any third-party individual or organization by Auditor without the prior written approval of District. By execution hereof, the District consents to disclosure of information to rating agencies, bond insurance companies, the State Treasury, bond counsel and bond underwriters. Provided, however, that such confidential information shall not include information that (i) is now, or hereafter becomes, through no act or failure to act on the part of Auditor, generally known or available in the public domain; (ii) is known by Auditor at the time of receiving such information; (iii) is hereafter furnished to Auditor by a third party, as a matter of right and without restriction on disclosure; (iv) is the subject of a written permission to disclose provided by the District; or (v) is in response to a subpoena or order of a court or other governmental body of the United States or any political subdivision thereof or otherwise required by law to be disclosed, provided that Auditor gives prompt written notice to the District of such requirement prior to disclosure.

**12. RECORD-KEEPING.** Auditor shall maintain all fiscal records relating to this Agreement in accordance with generally accepted accounting principles. In addition, Auditor shall maintain any other records, pertinent to this Agreement in such a manner as to clearly document the Auditor's performance hereunder. All such fiscal records, books, documents, papers, plans, and writings shall be retained by Auditor and kept accessible for a minimum of three (3) years, except as required longer by law, following final payment and termination of this Agreement, or until the conclusion of any audit, controversy, or litigation arising out of or related to this Agreement, whichever date is later.

**13. ACCESS TO RECORDS.** Auditor agrees that District and its authorized representatives shall have access to all books, documents, papers and records of the Auditor which are directly related to the Agreement, excluding files related to Auditor's personnel and business operations, for the purpose of making any audit, examination, copies, excerpts and transcripts and this right shall survive the term of this Agreement.

**14. FOREIGN CONTRACTOR.** If Auditor is not domiciled in or registered to do business in the State of Oregon, Auditor shall promptly provide to the Oregon Department of Revenue and the Oregon Corporation Division all information required by those agencies relative to this Agreement. Auditor shall demonstrate its legal capacity to perform these services in the State of Oregon prior to entering into this Agreement.

**15. GOVERNING LAW; JURISDICTION; VENUE.** This Agreement shall be governed and construed in accordance with the laws of the State of Oregon without resort to any jurisdiction's conflict of laws, rules or doctrines.

**16. OWNERSHIP OF WORK PRODUCT; LICENSE.** All final reports of Auditor that result from this Agreement and are submitted to the District, excluding any Auditor Materials (defined below) contained or embodied therein, ("the work products") are the exclusive property of the District. The parties expressly agree that the work products produced pursuant to this Agreement are works specially commissioned by the District, and that any and all such works shall be made for hire in which all rights and copyright belong exclusively to the District. Except as otherwise provided herein, Auditor shall not publish, republish, display or otherwise use any of the work products resulting from this Agreement without the prior written agreement of the District.

**16.1.** Auditor shall own any engagement documentation and consulting-related general skills, know-how, expertise, ideas, concepts, methods, techniques, processes, software, materials or other intellectual property or information which may have been discovered, created, received, developed or derived by Auditor either prior to or as a result of providing services under this Agreement ("Auditor Materials"). The District shall have a non-exclusive, non-transferable license to use Auditor Materials for the District's own internal use and only for the purposes for which they are delivered to the extent that they form part of the work product. Any interest granted hereunder by Auditor to the District shall be effective upon and to the extent of payment by the District of the fees and expenses invoiced by Auditor pursuant to this Agreement. Further, all original written material and other documentation, including background data documentation, and staff work that is preliminary to final reports, originated and prepared for District under the contract documents, consisting of audit work papers, shall be the exclusive property of Auditor. Auditor will not use any written or other materials developed for District under the contract documents in developing materials for others, except as may be specifically provided herein or in writing to the contrary.

**16.2.** Auditor and its personnel are free to use and employ their general skills, know-how, and expertise, and to use, disclose, and employ any generalized ideas, concepts, know-how, methods, techniques, or skills gained or learned during the course of this Agreement so long as they acquire and apply such information without any unauthorized use or disclosure of confidential or proprietary information of District. Material already in Auditor's possession, independently developed by Auditor outside the scope of the Agreement or independently obtained by the Auditor from third parties, belongs to Auditor.

**16.3.** This Agreement shall not preclude Auditor from independently developing materials that may be similar to materials developed pursuant to the contract documents.

**17. ERRORS.** Upon written request and only to the extent permitted by professional standards while maintaining Auditor's independence to provide audit services, Auditor shall perform such additional work as may be necessary to correct errors in the work required under this Agreement without undue delays and without additional cost.

**18. TERMINATION.** This Agreement may be terminated at any time by mutual consent of both parties, or by either party upon thirty (30) days' written notice, delivered by certified mail at the address listed in this Agreement, or by facsimile at the facsimile number listed below, or in person. In the event of termination, (a) Auditor will stop providing Services hereunder except on work mutually agreed upon in writing, necessary to carry out such termination; (b) District shall pay Auditor for work and services provided and expenses incurred through the effective date of termination; (c) neither party shall be liable to the other for any damages that occur as a result of Auditor ceasing to render services to the District.

In case of termination by Auditor, Notice shall be mailed or faxed to:

Paul Matthews,  
Chief Financial Officer  
Tualatin Valley Water District  
1850 S.W. 170th Avenue  
Beaverton, Oregon 97006  
Facsimile: (503) 649-2733

In case of termination by District, Notice shall be mailed or faxed to:

Julie Desimone,  
Partner and National Practice Leader  
Moss Adams LLP  
805 S.W. Broadway, Suite 1200  
Portland, Oregon 97205  
Facsimile: (503) 274-2789

**19. ATTORNEY FEES.** If a suit or action is filed to enforce any of the terms of this Agreement, each party shall pay its own costs and attorney fees.

**20. SEVERABILITY.** The parties agree that if any term or provision of this Agreement is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular term or provision held to be invalid.

**21. FORCE MAJEURE.** Neither District nor Auditor shall be held responsible for delay or default caused by fire, riot, acts of God, or war where such cause was beyond, respectively,

District's or Auditor's reasonable control. Auditor shall, however, make all reasonable efforts to remove or eliminate such a cause of delay or default and shall, upon the cessation of the cause, diligently pursue performance of its obligations under this Agreement.

**22. WAIVER.** The failure of District or Auditor to enforce any provision of this Agreement shall not constitute a waiver by District or Auditor of that or any other provision.

**23. AUTHORIZATION.** The person signing this Agreement on behalf of Auditor hereby covenants and warrants that he/she is authorized to do so, and that his/her signature will fully bind Auditor to the terms and conditions of this Agreement. Upon the District's request, Auditor shall provide the District with evidence to confirm the foregoing covenants and warranties between the parties.

**24. MERGER.** This Agreement and attached exhibits constitute the entire Agreement between the parties. No waiver, consent, modification or change of terms of this Agreement shall bind either party unless in writing and signed by both parties.

**25. OBJECTIVE OF THE AUDIT.** The objective of Auditor's audit is the expression of an opinion about whether District's financial statements are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles. Auditor's audit will be conducted in accordance with U.S. generally accepted auditing standards and the Oregon Municipal Audit Law set forth in ORS Chapter 297 and incorporated herein and will include tests of District's accounting records and other procedures Auditor considers necessary to enable Auditor to express such an opinion. If Auditor's opinion is other than unqualified, Auditor will discuss the reasons with District in advance. If, for any reason, Auditor is unable to complete the audit or are unable to form or have not formed an opinion, Auditor may decline to express an opinion or to issue a report.

**26. PROCEDURES AND LIMITATIONS.**

**26.1.** Auditor's procedures may include tests of documentary evidence supporting the transactions recorded in the accounts, tests of the physical existence of inventories, and direct confirmation of certain receivables and certain other assets and liabilities by correspondence with selected customers, creditors, and financial institutions. Auditor may also request written representations from District's attorneys as part of the engagement, and they may bill District for responding to this inquiry. At the conclusion of Auditor's audit, Auditor will require certain written representations from management about the financial statements and related matters. Management's failure to provide representations to Auditor's satisfaction will preclude Auditor from issuing Auditor's report.

**26.2.** An audit includes examining evidence, on a test basis, supporting the amounts and disclosures in the financial statements. Therefore, Auditor's audit will involve judgment about the number of transactions to be examined and the areas to be tested. Also, Auditor will plan and perform the audit to obtain reasonable, rather than absolute, assurance about whether the financial statements are free of material misstatement. Such material misstatements may include errors, fraudulent financial reporting, misappropriation of assets, or

violations of laws or governmental regulations that are attributable to the entity or to acts by management or employees acting on behalf of the entity that may have a direct financial statement impact. A risk exists that Auditor may not detect material misstatements because (i) an audit is designed to provide reasonable, rather than absolute, assurance the financial statements are free of material misstatement, (ii) Auditor will not perform a detailed examination of all transactions as such is cost prohibitive, and (iii) an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements. However, Auditor will inform District of any material errors, fraudulent financial reporting or misappropriation of assets, and violations of laws or governmental regulations that come to Auditor's attention, unless clearly inconsequential. Auditor's responsibility as auditors is limited to the period covered by Auditor's audit and does not extend to any time period for which Auditor is not engaged as auditors.

**26.3.** Auditor's audit will include obtaining an understanding of District and its environment, including its internal control sufficient to assess the risks of material misstatements of the financial statements whether due to error of fraud and to design the nature, timing, and extent of further audit procedures to be performed. An audit is not designed to provide assurance on internal control or to identify deficiencies in the design or operation of internal control. However, if, during the audit, Auditor becomes aware of any matters involving internal control or its operation that Auditor considers to be significant deficiencies under standards established by the American Institute of Certified Public Accountants, Auditor will communicate them in writing to District and those charged with governance. Auditor will also identify if Auditor considers any significant deficiency, or combination of significant deficiencies, to be a material weakness.

**26.4.** Auditor may assist District in the preparation of District's financial statements. Regardless of any assistance Auditor may render, all information included in the financial statements remains the representations of District. Auditor may issue a preliminary draft of the financial statements to District for District's review. Any preliminary draft financial statements should not be relied upon, reproduced or otherwise distributed without the written consent of Auditor.

## **27. RESPONSIBILITY FOR FINANCIAL STATEMENTS.**

**27.1.** District is responsible for making all financial records and related information available to Auditor and for the accuracy and completeness of that information. Auditor may advise District about appropriate accounting principles and their application and will assist in the preparation of District's financial statements, but District is responsible for the financial statements. This responsibility includes the establishment and maintenance of adequate records and effective internal controls over financial reporting, the selection and application of accounting principles, and the safeguarding of assets. District is responsible for the design and implementation of programs and controls to prevent and detect



fraud, and for informing Auditor about all known or suspected fraud affecting District involving (i) management, (ii) employees who have significant roles in internal control, and (iii) others where the fraud could have a material effect on the financial statements. District is responsible for informing Auditor of District's knowledge of any allegations of fraud or suspected fraud affecting District received in communications from employees, former employees, regulators or others. District is responsible for adjusting the financial statements to correct material misstatements and for confirming to Auditor in the management representation letter that the effects of any uncorrected misstatements aggregated by Auditor during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole. District is also responsible for identifying and ensuring that District complies with applicable laws and regulations.

- 27.2.** District agrees that as a condition of Auditor's engagement District will provide Auditor, in a timely and orderly way, with information in District's possession that Auditor requests or that has a material impact on the nature or characterization of any material transaction to complete Auditor's engagement and that information will be, to the best of District's knowledge and belief, truthful and accurate.

**28. DISSEMINATION OF FINANCIAL STATEMENTS.**

- 28.1.** Auditor's report on the financial statements must be associated only with the financial statements that were the subject of Auditor's engagement. District may make copies of Auditor's report, but only if the entire financial statements (including related footnotes and supplemental information, as appropriate) are reproduced and distributed with Auditor's report. District agrees not to reproduce or associate Auditor's report with any other financial statements, or portions thereof, that are not the subject of this engagement.

- 28.2.** District may choose to publish District's financial statements electronically on District's Internet website. District agrees Auditor is not required under professional standards or this Agreement to read or monitor the information contained on District's website or to consider the consistency of other information in the electronic site with the original document. However, Auditor reserves the right to review the information as presented on District's Internet website and to withdraw Auditor's report should Auditor disagree with the form, context or manner of presentation of the financial statements upon which Auditor reported. District agrees that upon written notification of Auditor's objections District will immediately remove Auditor's report and any reference thereto or to Auditor from District's Internet website.

**29. OFFERING OF SECURITIES.** This Agreement does not contemplate Auditor providing any services in connection with the offering of securities, whether registered or exempt from registration, and Auditor will charge additional fees to provide any such services. District agrees

not to incorporate or reference Auditor's report in a private placement or other offering of District's equity or debt securities without Auditor's express written permission. District further agrees Auditor is under no obligation to re-issue Auditor's report or provide consent for the use of Auditor's report at a later date in connection with an offering of securities, the issuance of debt instruments or for any other circumstance. Auditor will determine, at Auditor's sole discretion, whether Auditor will re-issue Auditor's report or provide consent for the use of Auditor's report only after Auditor have conducted any due diligence Auditor deems necessary in the circumstances. District agrees to provide Auditor with adequate time to review documents where Auditor's report is (i) requested to be reissued, (ii) referred to, or (iii) reference to Auditor's firm as "Experts" is expected to be made. If Auditor decides to re-issue Auditor's report or consent to the use of Auditor's report, District agrees that Auditor will be included on each distribution of draft offering materials and Auditor will receive a complete set of final documents.

**30. CHANGES IN PROFESSIONAL OR ACCOUNTING STANDARDS.** To the extent that future federal, state, or professional rule-making activities require modification of Auditor's audit approach, procedures, scope of work, etc., Auditor will advise District of such changes and the impact on Auditor's fee.

**31. LIMITATION ON LIABILITY.** In no event will either party be liable to the other for any special, indirect, incidental, or consequential damages in connection with or otherwise arising out of this Agreement, even if advised of the possibility of such damages. In no event shall either party be liable for exemplary or punitive damages arising out of or related to this Agreement.

**32. DOCUMENT RETENTION POLICY.** At the conclusion of this engagement, Auditor will return to District all original records District supplied to Auditor. District's records are the primary records for District's operations and comprise the backup and support for the results of this engagement. Auditor's records and files, including Auditor's work papers whether kept on paper or electronic media, are Auditor's property and are not a substitute for District's own records. Except as set forth above, District agrees that Auditor may destroy paper originals and copies of any documents, including, without limitation, correspondence, agreements, and representation letters, and retain only digital images thereof.

**33. USE OF ELECTRONIC COMMUNICATION.** In the interest of facilitating Auditor's services to District, Auditor may communicate by facsimile transmission or send electronic mail over the Internet. Such communications may include information that is confidential to District. Auditor employs measures in the use of facsimile machines and computer technology designed to provide reasonable assurance that data security is maintained. While Auditor will use Auditor's best efforts to keep such communications secure in accordance with Auditor's obligations under applicable laws and professional standards, District recognizes and accepts that Auditor has no control over the unauthorized interception of these communications once they have been sent. Unless District issues specific instructions to do otherwise, Auditor will assume that District consents to Auditor's use of facsimile transmissions to District's representatives and other use of these electronic devices during this engagement as Auditor deems appropriate.

IN WITNESS WHEREOF, the parties have executed this Agreement effective the day and year first above written.

**TUALATIN VALLEY WATER DISTRICT**

By:   
Mark Knudson,  
Chief Executive Officer

**MOSS ADAMS LLP**

By:   
Julie Desimone,  
Partner and National Practice Leader

Date: 5/21/2019

Date: 6/10/19

## EXHIBIT A - SCOPE OF SERVICES AND GENERAL REQUIREMENTS.

1. All audits shall be performed in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in the requirements of the Minimum Standards for Audits for Oregon Municipal Corporations. The audit shall also be performed in compliance with all other applicable federal, state, and local laws and regulations.
2. The District does not currently require a single audit. However, the District is likely to be the recipient of federal funds during the period covered by this proposal. Audits conducted after federal funding is received shall be conducted in accordance with generally accepted government auditing standards and the provisions of OMB uniform guidance. Any fees relating to the additional services required to conduct the audit under these circumstances shall be considered as additional fees subject to negotiation and are not to be considered within the scope of the services to be provided under the original agreement.
3. The District is the managing agency for the Willamette River Water Coalition (WRWC) and the Willamette Intake Facilities Commission (WIF). In July of 2019, it is anticipated that the District will become the managing agency of the Willamette Water Supply System Commission (WWSS) upon inception. Additional joint ventures may be formed during the term of the audit agreement.

Audit services for the District and the WIF, as well as review services for the WRWC are included as part of this Scope of Services. Audit services for the WWSS and any additional joint ventures created during the term of the audit agreement will be considered as additional fees subject to negotiation and are not to be considered within the scope of services to be performed under the original agreement.

4. The audit/review periods cover the fiscal year beginning July 1st, through June 30th. The audit shall cover all the funds of the District. Separate audits or reviews are required for joint ventures for which the District is the managing agency. Lists and copies of the required reports are attached for use in preparing the audit proposal and are available on our website. See references to website and appendices below.
5. If circumstances disclosed by the audit indicate that a more intensive and detailed examination is required than that which would be sufficient under normal circumstances, Auditor shall provide the District all pertinent facts relative to the extraordinary circumstances in writing together with Auditor's estimate of the additional effort to provide the necessary services. Any fees relating to such extensions of examination procedures are to be considered as additional fees subject to negotiation and are not to be considered within the scope of services to be performed under the original agreement.
6. Historically, the audit fieldwork generally takes four to five days at interim and final audit. With the addition of joint ventures to the audit scope more time may be required. (See Appendix A for the current list of joint ventures). Other joint ventures may be added

during the term of this agreement. Interim field work may be scheduled at the convenience of the audit team and District accounting staff. The audit firm may be asked to conduct a preliminary audit exit conference for the District's Management.

7. Auditor shall provide a separate Management Letter addressing the observations, options and comments concerning internal controls and operations efficiencies and recommendations for improvements if they are noted during the course of the audit. Such observations, opinions or comments are not to be construed as special or additional studies.
8. The District has been awarded the Government Finance Officer Association's (GFOA's) Certificate of Achievement for Excellence in Financial Reporting every year since 1990. The award indicates the report not only complies with generally accepted accounting principles and applicable legal requirements, but is also easy to read, efficiently organized, and conforms to program standards.

It is the District's intent to annually submit its CAFR to the GFOA Certificate program and to continue to receive the award. The District may require technical assistance from the audit firm in regard to presentation or disclosure issues relating to the GFOA program. The District may also require assistance in responding to the annual GFOA reviewer comments. Once the audit is completed, a set of auditor opinion letters on the auditing firm's stationery with the required disclosures will be necessary for inclusion into the District's CAFR and for the joint venture reports. The District will print and assemble the final CAFR documents. The 2018 TVWD CAFR can be viewed on the District website at:

[https://www.tvwd.org/media/203983/cafr\\_18\\_17.pdf](https://www.tvwd.org/media/203983/cafr_18_17.pdf)

The 2018 Willamette River Water Coalition Financial Report is located here:

[http://www.willametteriver.org/docs/WRWC\\_report%20final%20FY18.pdf](http://www.willametteriver.org/docs/WRWC_report%20final%20FY18.pdf)

The 2018 Willamette Intake Facilities Commission Financial Report is located here:

[https://www.tvwd.org/media/203930/01\\_wif%20report%20v2.pdf](https://www.tvwd.org/media/203930/01_wif%20report%20v2.pdf)

## Exhibit B - Fee Proposal

# Fee Proposal

The fees below were carefully considered and we believe reflect a fair and reasonable value in relation to the District's needs as outlined in your scope of work. Starting with a carefully designed audit approach, tied directly to the needs of your stakeholders and based on our substantial understanding of your systems, the fees below were calculated based on the hours needed to appropriately address your inherent risks.

Our goal is to be clear with you on fees from the very beginning—we'd rather provide a reasonable fee estimate than charge you for unexpected hours later. Other firms may offer to complete your audit in fewer hours but consider what may get overlooked when audit hours are not appropriately budgeted. Can you be sure a low-hour engagement will apply the right level of risk assessment or evaluate the correct balances and transaction cycles? Will your board, external users of your financial statements, or beneficiaries of your services get an appropriate analysis that addresses their biggest worries or concerns? With Moss Adams, you'll get all of that plus a strategic relationship with national industry leaders—the District and its stakeholders will rest easy knowing they're working with the right team and the right approach for financial accuracy and transparency.

We've priced our engagement competitively to reflect our desire for a long-term client service commitment and to support the District's strategic objectives. However, if fees may keep us from being considered, please reach out to us to discuss prior to making a final decision—we wouldn't willingly allow a fee differential to keep you from staying on as one of our most valued clients.

### STANDARD HOURLY RATES

| Staff Level    | Hourly Rate |
|----------------|-------------|
| Partner        | \$455       |
| Senior Manager | \$360       |
| Manager        | \$260       |
| Senior         | \$205       |
| Staff          | \$165       |



## Exhibit B - Fee Proposal

### FEE FOR AUDIT AND REVIEW SERVICES

| Service Description  | 2019            | 2020            | 2021            | 2022            | 2023            |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|
| Audit of the financial statements of Tualatin Valley Water District        | \$46,000        | \$47,300        | \$48,600        | \$49,900        | \$51,200        |
| Audit of the financial statements of Willamette Intake Facility Commission | \$4,000         | \$4,100         | \$4,200         | \$4,300         | \$4,400         |
| Financial statement review services for Willamette River Water Coalition   | \$3,000         | \$3,100         | \$3,200         | \$3,300         | \$3,400         |
| Attendance at audit committee meetings, including:                         |                 |                 |                 |                 |                 |
| › Presentation of audit results  |                 |                 | Included        |                 |                 |
| › Communication of internal control issues                                 |                 |                 |                 |                 |                 |
| › Management letter  |                 |                 |                 |                 |                 |
| <b>Maximum Not-to-Exceed Fee</b>   | <b>\$53,000</b> | <b>\$54,500</b> | <b>\$56,000</b> | <b>\$57,500</b> | <b>\$59,000</b> |

### BILLING INFORMATION

Billing for services rendered will be presented monthly and, at your request, include the name and title of staff, hours worked, and the hourly rate totaling the labor amount. Our billing invoices will also include a summary showing the maximum fee, fees paid to date, and the remaining "not-to-exceed" balance.

### ADDITIONAL FEE DETAILS

| Subject  | The Details  |
|--|--|
| Cost Overruns                                      | During the course of the audit, we'll measure our progress against our planned budget. If situations arise that are significantly different than our expectations, we'll bring them to your attention immediately and discuss various options before we proceed. We'll meet weekly during the course of fieldwork with the appropriate parties to ensure there are open lines of communication between our organizations.  |
| Routine Phone Calls and Emails                     | Our policy is to not charge for short telephone calls seeking miscellaneous advice unless those consultations require significant additional work or research. If a matter requires further follow-up, we'll discuss a fee estimate with you before incurring significant time.  |
| Minor Research and Consultation                    | If we're requested to provide minor research or consultation service, we'll estimate the number of hours necessary to provide the requested services. We'll then provide a fee quote for your approval before commencing any work. Our fees for these services are generally at our standard billing rates.  |
| Future New Audit, Review, and Accounting Standards | Our fee estimate discussed herein is based on accounting and professional standards that exist and are applicable as of the date of this proposal. To the extent that future rulemaking activities require modification to our audit approach, procedures, scope of work, etc., we'll advise you of such changes and the impact on our fee proposal. If we're unable to agree on the additional fees, if any, that may be required to implement any new accounting, auditing, and review standards that are required to be adopted and applied as part of our engagement, we reserve the right to withdraw from the engagement, regardless of the stage of completion. |





## EXHIBIT C

### AUDIT WORK PAPERS, SUPPORT, AND SERVICES TO BE PROVIDED BY DISTRICT STAFF

The following work papers are prepared by the District's Finance Staff:

#### TUALATIN VALLEY WATER DISTRICT

##### AUDIT WORK PAPERS

###### I. Trial Balances and Other

- Trial Balances with prior year activity for each Budgetary Fund
- Adjusting journal entries
- GAAP adjustments

###### II. Completed Draft of CAFR

- Letter of Transmittal
- Management's Discussion & Analysis
- Basic Financial Statements
- Notes to Basic Financial Statements
- Required Supplementary Information
- Budgetary Schedules
- Statistical Section

###### III. Consolidating Worksheets

###### A. Cash and Investments

- Bank reconciliations
- Outstanding checks list
- Deposits in transit
- Schedule of investments
- Schedule of investment earnings by fund
- Schedule of investment gains and losses from sale of investments

###### B. Statements of Net Position Analysis-Assets

Schedules for all significant asset categories, including:

- Accounts receivable including accrued water sales
- Inventory
- Capital asset additions and deletions
- Plant in service

Statements of Net Position Analysis -Assets (continued)

- Work in progress
- Contributed projects
- Depreciation schedule
- Support for current year contributed capital
- Leased assets and amortization
- Non-utility property
- Accrued accounts and deposits
- Joint Ventures

C. Statements of Net Position Analysis – Liabilities

Schedules for all significant liability categories, including:

- Accounts payable
- Retainage payable
- Payroll liabilities
- Accrued compensated absences
- Bond & interest schedules
- Customer deposits detail
- Pension liabilities and related deferred inflows and outflows
- OPEB liabilities and related deferred inflows and outflows
- Lease liabilities

IV. Other

- Analysis of changes to Net Position categories
- Net Position calculations
- Inter-Fund transfers lead schedule.
- Reconciliation of payroll to 941s and PERS reports
- New bond issues or refunding detail
- Response to GFOA Comments
- Bond & coupon schedules
- Support for debt service coverage covenants
- Insurance coverage

V. Other Reports

- Budget Adjustments and Supplemental Budgets
- Budget Hearing Notices
- Budget Documents and Reconciliation to Operating Statements
- Other Schedules and Reports upon request

## **AUDIT WORKPAPERS**

### **I. Trial Balances and Other**

- Trial Balances with prior year activity
- Adjusting journal entries
- GAAP adjustments

### **II. Financial Statements**

- Basic financial statements
- Notes to basic financial statements
- Budgetary schedule

### **III. Supporting schedules for significant categories on the statement of net position:**

- Cash and investments
- Accounts receivable
- Capital assets
- Accounts payable
- Accrued liabilities
- Components of net position

### **IV. Supporting schedules for significant categories on the statement of revenue, expenses, and changes in net position:**

- Depreciation
- Capital contributions
- Operating income and expenses
- Analysis of variances in operating income and expenses

### **V. Other Reports**

- Budget Adjustments and Supplemental Budgets
- Budget Hearing Notices
- Budget Documents and Reconciliation to Operating Statements
- Other Schedules and Reports upon request
- Related party transactions

**WILLAMETTE WATER SUPPLY SYSTEM COMMISSION (to be established in the year ending 6/30/2020)**

**AUDIT WORKPAPERS**

**I. Trial Balance and Other**

- Trial Balance
- Adjusting journal entries
- GAAP adjustments

**II. Financial Statements**

- Management's discussion and analysis
- Basic financial statements
- Notes to basic financial statements
- Budgetary schedule

**III. Supporting schedules for significant categories on the statement of net position**

- Cash and investments
- Accounts receivable
- Capital assets
- Accounts payable
- Accrued liabilities
- Components of net position

**IV. Supporting schedules for significant categories on the statement of revenue, expenses, and changes in net position:**

- Depreciation
- Capital contributions
- Operating income and expenses

**V. Other Reports:**

- Budget Adjustments and Supplemental Budgets
- Budget Hearing Notices
- Budget Documents and Reconciliation to Operating Statements
- Other Schedules and Reports upon request
- Related party transactions

## **WILLAMETTE RIVER WATER COALITION**

### **REVIEW WORKPAPERS**

#### **I. Trial Balance and Other**

- Trial Balance
- Adjusting journal entries
- GAAP adjustments

#### **II. Financial Statements**

- Management's discussion and analysis
- Basic financial statements
- Notes to basic financial statements
- Budgetary schedule

#### **III. Supporting schedules for significant categories on the statement of net position**

- Cash and investments
- Accounts receivable
- Capital assets
- Accounts payable
- Accrued liabilities
- Components of net position

#### **IV. Supporting schedules for significant categories on the statement of revenue, expenses, and changes in net position:**

- Reimbursements from joint ventures
- Operating expenses
- Capital contributions
- Analysis of variances in operating income and expenses

#### **V. Other Reports:**

- Budget Adjustments and Supplemental Budgets.
- Budget Hearing Notices.
- Budget Documents and Reconciliation to Operating Statements.
- Other Schedules and Reports upon request
- Related party transactions



**TUALATIN VALLEY**  
WATER DISTRICT

**Date:** May 18, 2022  
**To:** Board of Commissioners  
**From:** Nicholas Augustus, PE, Engineering Division Manager  
**Subject** Intergovernmental Agreement Between Tualatin Valley Water District and the City of Beaverton for System Interconnection at SW Kemmer Road

**Requested Board Action:**

Consider adopting a resolution approving the Intergovernmental Agreement Between Tualatin Valley Water District and the City of Beaverton for System Interconnection at SW Kemmer Road, to allow for providing reliable water service to present and future customers in the event of an emergency or planned maintenance of water facilities.

**Key Concepts:**

The City of Beaverton (City) and Tualatin Valley Water District (TVWD) both serve customers in the upper elevations of Cooper Mountain, requiring that water be pumped to the area. Each entity only has a single transmission waterline and a single set of pumping facilities to deliver water to the top of Cooper Mountain, creating a risk that a failure of one of these assets could leave customers without water.

Planned maintenance activities or replacement of the pumped facilities is also challenging since there is only one feed to the top of Cooper Mountain. The interconnection on Kemmer Road will allow each entity to have a backup connection during planned or unplanned outages.

**Background:**

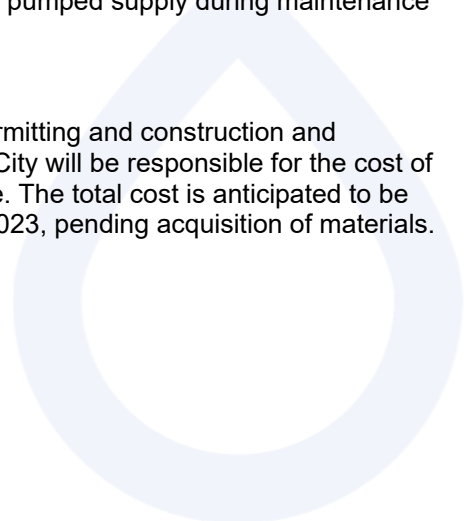
TVWD and the City both serve customers located in the Cooper Mountain area. The Cooper Mountain area is located on the south side of TVWD's main service area and is located in areas of steep terrain requiring booster pump stations. Each entity has only one set of booster pump stations and piping to reach the Cooper Mountain reservoirs. TVWD has aging pump stations that are in need of repair, or are reaching the end of their useful life, and will require replacement or rehabilitation. To perform replacement or rehabilitation, continuing to serve reliable water to the top of Cooper Mountain is very challenging without an additional source of supply.

TVWD evaluated costs and options to install a new pump station with the associated piping to its Cooper Mountain Reservoirs. The costs for the initially selected option, Farmington Road Pump Station Project, became excessive during design, so TVWD re-evaluated options to accomplish the same goal. The result was an interconnection with the City to allow each entity to have, in essence, two feeds to the area. This was considered a very cost-effective option for both entities. Though the supplies are not able to fully provide sufficient water to both entities in the hot summer months, it was considered sufficient to have some backup supply in the event of a system failure, and during winter demand periods the backup sources will be able to provide sufficient supply.

If approved, the IGA will allow TVWD to construct improvements to its pumped supply during winter months without having to install temporary pumps or go through extraordinary measures to provide pumped supply during maintenance operations.

**Budget Impact:**

By executing this IGA, each party agrees to pay one-half of the costs of design, permitting and construction and continuing maintenance of the vault, which includes the connecting pipelines. The City will be responsible for the cost of the City waterline and TVWD will be responsible for the cost of the TVWD waterline. The total cost is anticipated to be approximately \$1,500,000. The work is anticipated to be done during Fiscal Year 2023, pending acquisition of materials. TVWD currently plans to manage this cost within the existing biennial budget.



**Staff Contact Information:**

Nicholas Augustus, PE; Engineering Division Manager; 971-327-6292; [nick.augustus@tvwd.org](mailto:nick.augustus@tvwd.org)

**Attachments:**

Proposed resolution  
Exhibit 1: Intergovernmental agreement

**Leadership Team Initials:**

|                               |            |                               |     |
|-------------------------------|------------|-------------------------------|-----|
| Chief Executive Officer (AIC) | <i>PSM</i> | Customer Service Manager      | N/A |
| Chief Engineer                | <i>CDP</i> | IT Services Director          | N/A |
| Chief Financial Officer       | <i>PSM</i> | Human Resources Director      | N/A |
| General Counsel               | <i>CS</i>  | Water Supply Program Director | N/A |







**TUALATIN VALLEY**  
WATER DISTRICT

## RESOLUTION NO. 06-22

A RESOLUTION APPROVING THE INTERGOVERNMENTAL AGREEMENT BETWEEN TUALATIN VALLEY WATER DISTRICT AND THE CITY OF BEAVERTON FOR SYSTEM INTERCONNECTION AT SW KEMMER ROAD

WHEREAS, the City of Beaverton (Beaverton) and Tualatin Valley Water District (District) serve their respective water systems from reservoirs and other water system facilities on Cooper Mountain, including new facilities under construction or to be constructed in close proximity along Kemmer Road; and

WHEREAS, Beaverton and the District find it beneficial, economic and efficient to construct water system facilities and a pipeline in Kemmer Road to interconnect the systems and provide for emergency and mutual aid water supply as set forth in the Intergovernmental Agreement Between Tualatin Valley Water District and the City of Beaverton for System Interconnection at SW Kemmer Road, attached hereto as Exhibit 1 and incorporated by reference (Agreement); and

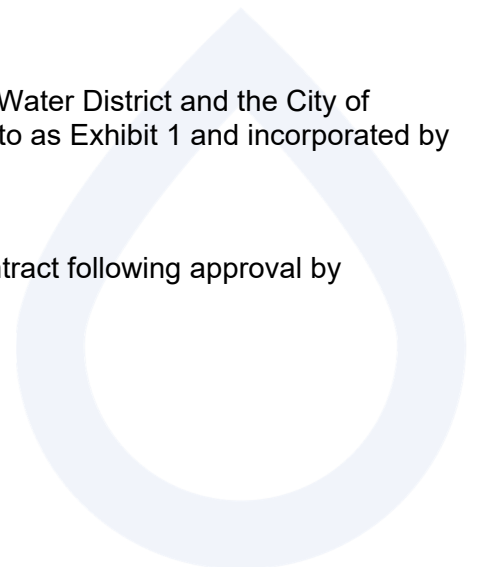
WHEREAS, the Agreement provides for the allocation of costs for the design and construction of the water system facilities and methodology for costs of operations thereof as well as provisions for temporary water supply from Beaverton to District while District makes system improvements; and

WHEREAS, pursuant to Oregon Revised Statutes 190.003 to 190.130, the Parties desire to enter into the Agreement and being advised.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF THE TUALATIN VALLEY WATER DISTRICT THAT:

Section 1: The Intergovernmental Agreement Between Tualatin Valley Water District and the City of Beaverton for System Interconnection at SW Kemmer Road, attached hereto as Exhibit 1 and incorporated by reference, is hereby approved.

Section 2: The Chief Executive Officer is authorized to execute this contract following approval by Beaverton.



Section 3: The Board authorizes the Chief Executive Officer to execute an amended version of the contract so long as the final executed version is substantially the same as that set forth on Exhibit 1 and the General Counsel has approved.

Approved and adopted at a regular meeting held on the 18<sup>th</sup> day of May 2022.

---

Todd Sanders, President

---

Jim Doane, Secretary



**INTERGOVERNMENTAL AGREEMENT BETWEEN  
TUALATIN VALLEY WATER DISTRICT AND THE CITY OF BEAVERTON  
FOR SYSTEM INTERCONNECTION AT SW KEMMER ROAD**

**PARTIES:**

TVWD: Tualatin Valley Water District, a domestic water supply district

City: City of Beaverton, an Oregon municipal corporation

Together collectively referred to as the “Parties” or individually as a “Party.”

**BACKGROUND:**

- A. Each Party owns, operates, and maintains municipal water system facilities to serve residential, commercial, and industrial customers within their respective service territories.
- B. The Parties desire to build on their history of cooperation to ensure the cost-effective provision of safe and reliable water services to present and future customers by establishing a mutually beneficial interconnection between their two water systems in the Cooper Mountain area as depicted on Exhibit A, which is attached and incorporated by this reference.
- C. Each Party owns and maintains water system facilities consisting of reservoirs and pipelines in and around Southwest Kemmer Road, and within approximately 1,500 feet of the other Party. Water is supplied separately to each Party’s system through pumped supply systems, and the Parties believe an interconnection between the systems can provide for standby and emergency water for each Party for the mutual benefit and resiliency for customers.
- D. In the future, the Parties anticipate accommodating a second high pressure intertie to allow reciprocal emergency water for each Party’s 920 HGL pressure zone.

**THE PARTIES AGREE AS FOLLOWS:**

Section 1. Definitions. The following words and phrases shall have the meaning given in these definitions when capitalized:

- 1.1. **Connection**: The Vault; TVWD’s 24-inch diameter pipeline, which commences at the vault and follows along SW Kemmer Road approximately 1,500 feet to the TVWD Cooper Mountain reservoir site; and all other improvements necessary to make connection between the Parties’ systems.
- 1.2. **Emergency**: A sudden, unplanned occurrence that results in the inability to supply water to customers, such as a main break or other event resulting in a significant reduction in pressure or the receiving Party’s ability to supply water to its

customers. Emergency does not include increased demand or lack of supply due to drought, warmweather, or increased demand due to service area growth.

- 1.3. **Emergency Supply:** The temporary unplanned use of the Connection between the water systems of the Parties to provide emergency water supply in an Emergency.
- 1.4. **City Property:** City owned real property located at 18402 SW Kemmer Road, which houses the City's Cooper Mountain Reservoirs, ASR 7 and other City water system facilities.
- 1.5. **Supply Agency:** The water supply agency that provides treated water to the Parties. The Parties' Supply Agency may be the Joint Water Commission (JWC), the Willamette Water Supply System (WWSS), or other water provider to the Parties.
- 1.6. **Temporary Supply:** The temporary regular use of the Connection between the water systems while TVWD completes modification of its pump stations to serve its Cooper Mountain facilities, or the use by either Party if that Party's system is out of service, either due to pressure loss or planned shutdown, as mutually agreed by the Parties.
- 1.7. **Vault:** The joint metering vault, as well as meters, valves, Supervisory Control and Data Acquisition (SCADA) system, electrical power, assemblies, appurtenances, and the like located in or around the vault located at the west side entrance to the Beaverton-owned Cooper Mountain Reservoir property; approximately 20 to 30 feet of 24-inch ductile iron pipeline or more, depending on the final alignment, from the eastern connection point to the vault; and all other improvements related to the vault.

Section 2. Term. This Agreement commences on the day it is executed by the last Party, and it continues for 20 years, and will renew automatically for additional 5-year periods unless either amended or terminated upon written agreement of the Parties.

Section 3. Connection.

- 3.1 **Description of Connection.** City and TVWD agree to provide a Connection between their respective systems and provide a Vault at an agreed upon location on the City Property. The Vault located on the City Property shall be capable of providing water from either Party to the other. The Connection shall include a SCADA system that will allow the SCADA system to be configured so that both Parties can independently monitor the flow of water between their respective water systems, and additionally to the Joint Water Commission SCADA system.
- 3.2 **Construction.**
  - a. *Vault.* The City shall contract for engineering and construction of the Vault and the SCADA system described in Section 3.1.
  - b. *City Waterline.* The City shall contract for and construct approximately 500 feet of 24-inch ductile iron pipe located along the north side of the City Property, from east to west, to the Vault to connect the Parties' systems.

- c. *TVWD Waterline.* TVWD shall contract for and construct approximately 1,500 feet of 24-inch ductile iron pipe from the Vault's pipeline and continuing west, in and along SW Kemmer Road to TVWD's Cooper Mountain Reservoir.

**3.3 Location, Design, and Inspection.**

- a. *City.* The City is currently constructing reservoir improvements on the City Property according to designs prepared by the City's consultant. The City shall contract with its consultant to design the City Waterline and Vault to mutually agreed upon standards. If required, the City will submit the Vault design to the Oregon Health Authority (OHA) as needed to comply with OHA regulations. The Vault shall be designed and built to the requirements of the OHA approved plans. The Parties shall agree on the final location, capacity, and design of the Connection. The City shall provide reasonable notice to TVWD during construction of the Vault to allow reasonable inspection.
- b. *TVWD.* TVWD shall contract for design of the TVWD Waterline.

**3.4 Ownership.** The Parties shall equally own the Vault. Each Party shall own its own waterlines as described in Sections 3.2.b and 3.2.c

**3.5 Cost and Payment.**

- a. *Vault.* Each Party agrees to pay one-half of the costs of design, permitting, and construction, and continuing maintenance of the Vault, which includes the connecting pipelines. City shall administer and manage the work and invoice TVWD for its share of the Vault's cost. Payment shall be due within 30 days of invoice.
- b. *City Waterline.* The City shall be fully responsible for the cost of the City Waterline.
- c. *TVWD.* TVWD shall be fully responsible for the cost of the TVWD Waterline.

Section 4. Provision of Water through the Connection. The Connection shall be capable of providing water from one Party's system to the other Party. It shall be available and operable on demand at any time with notice that is reasonable under the circumstances from the requesting Party. The Parties agree that the Party supplying water will not be liable for non-delivery of water if it is unavailable because of the supplying Party's demands or system limitations. The Parties will develop a methodology to determine available capacity as part of the Operations Plan in Section 5.1.

- 4.1 **Use for Emergency Supply.** The Connection may be used for Emergencies when notice of the Emergency is given to the other Party. Notice from either Party to the other shall be reasonable under the circumstances.
- 4.2 **Use for Temporary Supply by TVWD.** TVWD shall be entitled to use the Connection for Temporary Supply for approximately two years after execution of this Agreement, as long as the City has sufficient capacity to wheel the water through the City's system. The Parties shall coordinate the timing of the commencement of TVWD improvements in the Cooper

Mountain area to minimize impacts to both Parties.

- 4.3 **Use for Temporary Supply by both Parties.** The Connection may be used by either Party for Temporary Supply of Cooper Mountain area facilities. Requests for use of the Connection for Temporary Supply shall be submitted a minimum of 30 days prior to anticipated usage, and it shall include a planned schedule along with the estimated supply quantity and flow desired for the duration Temporary Supply is anticipated. Both Parties shall agree to the plans prior to Temporary Supply being delivered, and acceptance of the plan shall not be unreasonably withheld. As an example, it would be unreasonable to deny a Party's request for Temporary Supply when sufficient water supply is available at the Connection to accommodate the request.
- 4.4 **Water Supply, Stored Water, Treatment Capacity, and Transmission Capacity.** Water provided through the connection shall be the receiving Party's own water that is wheeled through the providing Party's distribution system. The receiving Party will use its own stored water if applicable, its own treatment capacity, and its own transmission capacity to deliver this water to the providing Party's distribution system. Both Parties shall cooperatively coordinate with the Supply Agency to provide meter reads to the Supply Agency during usage of the Connection to support invoicing and stored water allocation to the Parties.

Section 5. Connection Water Meter.

- 5.1 **Installation and Maintenance.** Upon completion of construction and acceptance of ownership by the Parties, they shall continuously maintain, repair, and replace the meters, valves, assemblies, and appurtenances, as needed, to ensure proper operation of the Connection. City shall be responsible to operate and maintain the Vault and the City Waterline located on City Property, as shown on Exhibit A. TVWD shall be responsible for operation and maintenance of the TVWD Waterline starting at the first valve outside of the Vault where the TVWD Waterline leaves City property and enters SW Kemmer Road. The costs of operating and maintaining the Vault shall be shared equally and paid as provided in Section 3.4. City shall test the meter annually. The Parties shall coordinate the timing of planned maintenance that involves or impacts the Connection so that the functionality and availability of the Connection is optimized. The Parties shall mutually develop an Operations Plan that, at a minimum, addresses: 1) testing and flushing of the Connection; 2) water quality for water supplied through the Connection; and 3) the method for a Party to determine maximum capacity available to the other, in that Party's judgment.
- 5.2 **Access and Inspection.** City shall provide TVWD with access to the water meter for the purpose of inspecting and observing tests or to perform other obligations required under this Agreement, at any time with reasonable notice.
- 5.3 **Meter Reading.** Real-time SCADA information will be available to TVWD, the City, and Joint Water Commission ("JWC"). City may read the Connection meter periodically (typically monthly) for City's purposes, and TVWD will remotely

monitor the meter for TVWD's purposes through its SCADA system.

Section 6. No Third-Party Beneficiaries. The Parties agree that this Agreement is for the sole benefit of TVWD and the City and that there are no third-party beneficiaries to this Agreement. Each Party is providing the Connection as an accommodation to the other, regardless of any end users that receive water. This Agreement shall not be deemed to have conferred any rights, express or implied, upon any person or entity not a party to this Agreement.

Section 7. Rates, Charges and Fees. Water provided through the Connection, including the Temporary Supply under Section 4.2, shall be billed at the rate established according to Exhibit B, attached and incorporated by reference. In addition, any direct costs for items which are directly attributable to an Emergency, such as the cost of electricity, shall also be billed to the Party requesting water.

City will generally invoice TVWD within 30 days for all rates, charges, and fees incurred by the City for water delivered through the Connection. If TVWD provides water to City, City shall read the meters and notify TVWD of the amount of water measured by the meter within 30 days. TVWD will generally invoice the City within 30 days for all rates, charges, and fees incurred by TVWD for water delivered through the Connection.

Late payments are subject to interest at the default rate and additional charges as provided in Exhibit B. Failure to pay within 30 days of invoice shall result in termination of service following the procedures of Sections 11 and 13 below.

Section 8. Cross Connection Control. The Connection will be designed and constructed to deliver Emergency or Temporary Supply from either system to the other, and the Parties agree that there will be no cross-connection control assembly, unless required by OHA.

Section 9. Indemnity. To the full extent permitted by law, each Party (Indemnifying Party) agrees to indemnify, hold harmless and defend the other Party (Indemnified Party), its governing body, officers, agents, and employees from any and all liability, claims, demands, damages (including attorney fees and costs), actions, or proceedings of whatever kind or nature arising out the acts or failure to act under this Agreement by the Indemnifying Party, its elected officials, officers, agents, employees, or anyone over whom the Indemnifying Party has direction or control, except to the extent of the Indemnified Party's negligence, if any.

Section 10. Insurance. Independent of the indemnity obligation in Section 8, the Parties shall maintain not less than \$5,000,000 in liability, casualty, and property insurance coverages and appropriate Workers Compensation coverage.

Section 11. Detrimental Fiscal and Operational Impacts to the Parties. Each Party agrees to cooperate to prevent or minimize fiscal or operational impacts to the other Party that result from this Agreement and to negotiate reasonable modifications to this Agreement as

necessary to prevent detrimental impacts to either Party's system resulting from this Agreement.

Section 12. Dispute Resolution. This Agreement obligates the Parties to cooperate for the mutual benefit of all Parties to deliver water to their respective municipal water systems for Emergency and Temporary purposes. This Dispute Resolution process is provided to encourage informal resolution through negotiation among the Parties' staff, executives, or elected officials before resorting to a formal process using mediation, arbitration, or litigation.

- 12.1 **Default and Cure.** If a Party defaults in performance of this Agreement, then upon 20 days written notice, the defaulting party shall cure or undertake diligent steps to cure within a reasonable time. If the default cannot be cured within the 20-day period, the defaulting party must agree to the timeline for cure. Failure to pay must be cured by payment in full within 20 days. If the dispute is not resolved within 30 days, it shall be referred to mediation.
- 12.2 **Mediation.** If the default is not cured through a notice of default, the Party desiring mediation shall provide the other Party with a written notice setting forth the nature of the dispute. The Parties will cooperate in good faith to select the mediator within 14 days of either Party requesting mediation, and the Parties may adopt any procedural format that seems appropriate for the particular dispute. Mediation should be scheduled within 14 days of selection of the mediator, or as soon as possible, based on availability. If the mediation fails, the Parties may agree to binding arbitration, and if the Parties do not agree to arbitrate, then any Party may seek legal relief.
- 12.3 **Remedies.** The Parties agree that because this Agreement concerns potable water system infrastructure, equitable remedies such as injunction or specific performance may be sought.

Section 13. Notices. Any notice under this Agreement shall be deemed sufficient if hand delivered or deposited in the United States Mail, postage prepaid, addressed to the Parties as follows:

Tualatin Valley Water District  
Attn: Chief Executive Officer  
1850 SW 170<sup>th</sup> Ave  
Beaverton, OR 97003

City of Beaverton  
Attention: City Manager  
P.O. Box 4755  
Beaverton, OR 97076

Section 14. Termination. This Agreement may be terminated by any Party upon 5 year's notice to the other, unless the Parties mutually agree to a different date. At that time the parties will determine a mutually agreeable separation agreement.

Section 15. Law and Venue. The Parties agree that Oregon law will apply, and any legal proceeding shall be brought in the Circuit Court of the State of Oregon for the County of Washington.



Section 16. Successors and Assigns/Non-Assignment. This Agreement may not be assigned to another party without the express written consent of the non-assigning party.

Section 17. Amendment. This Agreement may only be amended in writing signed by both Parties. The designated representatives of each Party may execute any amendment to this Agreement.

THE PARTIES EXECUTED this Agreement on the dates written below.

City

TVWD

By: \_\_\_\_\_  
Lacey Beaty, Mayor

By: \_\_\_\_\_  
Tom Hickmann, CEO

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

Approved as to form:

\_\_\_\_\_  
City Attorney's Office

\_\_\_\_\_  
District General Counsel

# Exhibit A

## Emergency and Temporary Supply Facilities



## EXHIBIT B

### SYSTEM INTERCONNECTION AT SW KEMMER ROAD WHEELING SERVICE RATE

#### METHODOLOGY

This exhibit presents the methods that can be used to set the cost of wheeling water under the Agreement for the City of Beaverton (City) and the Tualatin Valley Water District (TVWD).

The Agreement allows for either Party to provide wheeled water service (Provider) to the other; and receive wheeled water service (Receiver) from the other. This exhibit presents the methods available to the Parties to determine the wheeled water rates (Rates) charged by the Provider and paid by the Receiver.

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#### 1 GENERAL APPROACH

The City and TVWD entered into an intergovernmental agreement (IGA) effective February 23, 2018 (Domestic Water Service Agreement), which among other things, describes the method to be used to calculate wheeling water rates to be charged by TVWD to the City for wheeling water under that IGA.

Using that method, and consistent with Domestic Water Service Agreement, TVWD updates the wheeling water rates associated with wheeling water service to the City. Although that wheeling rate charged the City is melded into a single wheeling water rate for all wheeled water to the City within TVWD's service area, the underlying method relies on the development of unit costs for wheeling water to various parts of TVWD's service area. The unit costs vary within TVWD's service area based on the infrastructure and operating expense required to serve each area. Elevation is often a key driver in the variation of unit costs within TVWD's service area. This exhibit describes the method that will be used to determine the various unit costs for both TVWD and the City that the Parties will use when determining the Rates.

The unit costs for the area(s) served by this Agreement calculated as part of the Domestic Water Service Agreement will be used to determine the Rates when TVWD is the Provider and the City is the Receiver of wheeled water under this Agreement. The Rates will exclude the unit cost for those services not provided by the Provider to the Receiver. Examples of excluded unit costs would be the cost for distribution and direct fire as described in the Domestic Water Service Agreement and presented as an example in Table 4 of Exhibit F of that agreement.

When the City is the Provider and TVWD is the Receiver, the City may determine the Rate using either:

1. The unit costs calculated by TVWD that TVWD would charge the City if TVWD were the Provider and the City were the Receiver, or

2. The City’s unit cost of wheeling water based on the methodology comparable to that included in Exhibit F of the Domestic Water Service Agreement and further described here.

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## **2 GENERAL METHODOLOGY**

### **2.1 INDUSTRY-STANDARD PRINCIPLES**

The methodology is to be based on industry-standard cost-of-service principles. That is, the Rates established by the methodology are intended to recover Provider’s cost of providing the wheeling services to the Receiver using industry-standard approaches. The Parties also intend that the cost-of-service principles be consistent with the principles underlying the methodologies used by the Joint Water Commission, a joint venture that, among others, includes both the City and TVWD.

### **2.2 UTILITY BASIS OF DETERMINING REVENUE REQUIREMENTS**

The revenue requirements that are used to calculate the Rates will be based on the utility basis as described in this Exhibit and Exhibit F of the Domestic Water Service Agreement. Under the utility basis, the revenue requirements that are the basis for the Rates include an amount for operations and maintenance costs described in Subsection 2.4.1 of this exhibit, a return on investment described in Subsection 2.4.3, and replacement cost depreciation described in Subsection 2.4.2. The Receiver will not be charged for costs incurred by Provider that are incurred exclusively in serving Provider’s retail customers. For those costs that are incurred for serving both the Receiver’s and Provider’s retail customers, the Receiver shall be charged its proportionate share of the cost using standard costs-of-service principles such as those presented by the American Water Works Association (AWWA) in its Manual of Water Supply Practices – *M1, Principles of Water Rates, Fees and Charges*, Seventh Edition, Denver: 2017.

### **2.3 TYPES OF CUSTOMERS AND CUSTOMER CLASSES**

The Parties anticipate that the Provider may have similar agreements with other water utilities in the Washington-county region. If Provider enters into other similar agreements, the Rates shall continue to be based on the proportionate cost of serving the Receiver.

The Receiver and Provider anticipate that Provider will wheel water for the Receiver to areas identified in the Agreement. These areas and service levels may be included in unique customer classes that accounted for the costs of serving each of the areas identified in the Agreement.

#### **2.3.1 Types of Customers**

Provider shall allocate costs based on a customer classification approach that follows cost-of-service principles. Provider shall classify customers as owners or nonowners, retail or wheeling, and by delivery area (e.g., pressure zone). Other classification factors may be implemented to further the cost-of-service objectives of the Agreement.

##### **2.3.1.1 Owner and Nonowner Customers**

Customer classes will be identified as either owner or nonowner customers. Owner customer classes are those that are served directly by Provider and are within Provider’s corporate

boundaries or otherwise treated as Provider’s direct retail customers. These customers capitalize the utility and have the rate of return set directly by the Provider.

Nonowner customers are those customers (e.g., the Receiver) located outside Provider’s corporate boundaries. Rates for Provider as a nonowner customers will be based on a return on investment described in Subsection 2.4.3 of this Exhibit and Exhibit F of the Domestic Water Service Agreement.

### **2.3.1.2 Retail and Wheeling**

Retail services is the service the Provider provides to its retail customers. Retail customer classes are those classes for which Provider provides retail services. Under this methodology, retail service includes those customers where the Provider owns and maintains the assets required to serve them.<sup>1</sup>

Wheeling service is the service the Provider provides to the Receiver at the locations identified in this Agreement. The services provided by Provider may vary by the area served. As a wheeling service, the Receiver provides the source of supply to Provider in exchange for the water wheeled. The source of supply exchanged from the Receiver to Provider must meet the operational standards established under the Agreement.

### **2.3.1.3 Delivery Area**

Provider will determine the Rates using cost-of-service principles that allocate costs based on delivery areas served. The Agreement establishes the delivery areas. The Rates will be determined based on the volume of water wheeled to these delivery areas. The delivery areas will be revised as necessary to meet the cost-of-service principles that underlies this Agreement.

## **2.4 DETERMINATION OF REVENUE REQUIREMENTS**

### **2.4.1 Operation and Maintenance Costs**

The operations and maintenance costs shall be those costs as set in Provider’s adopted budget for expenditures on personnel services, materials and services, and other appropriations categories that are not otherwise treated as capital expenditures. Operations and maintenance costs shall include appropriate allocation of Provider’s overhead costs following Provider’s indirect cost allocation plan. Operations and maintenance costs exclude debt service and other expenditures that are capitalized as determined by Provider’s capitalization policies.

Operation and maintenance costs assessed to the Receiver will be adjusted annually to reflect Provider’s actual costs using the following methodology:

1. After the close of each fiscal year, Provider will calculate the variance between the actual costs and the budget for Provider’s operation and maintenance costs charged to the Receiver for that fiscal year.

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<sup>1</sup> In this exhibit, “owns and maintains the assets required to serve them” may include the capacity of assets the Party controls through another joint venture or IGA.

## Exhibit B – System Interconnection at SW Kemmer Road Wheeling Service Rate Methodology

May 12, 2022

Page 4

2. The Receiver will be credited any savings or charged any additional costs in addition to Provider's operation and maintenance costs charged to the Receiver for the then-current fiscal year.
3. Such credits or additional charges will be applied equally over the months remaining in the fiscal year following the calculation of the variance described above.

This methodology may be adjusted and revised as mutually agreed by the parties as established in the Domestic Water Service Agreement (reference Section 6.3).

### **2.4.2 Replacement Cost Depreciation Expense**

Unless otherwise agreed to by the Parties, replacement cost depreciation expense shall be determined by the annual depreciation expense on assets that serve the Receiver based on the depreciation expense used by Provider in the preparation of its financial statements, adjusted by changes in the *Engineering News Record's Construction Cost Index for Seattle*. Replacement cost depreciation expense used for setting the Rates shall be determined using the following formula:

$$RCD_n = AD_n \frac{ENR_n}{ENR_a}$$

Where:

RCD<sub>n</sub> = Replacement Cost Depreciation in year n

AD<sub>n</sub> = Annual Depreciation on an asset at year n

ENR<sub>n</sub> = Value of the Construction Cost Index for Seattle in year n as published by the *Engineering News Record*.

ENR<sub>a</sub> = Value of the Construction Cost Index for Seattle in year the asset was estimated to be placed in service as published by the *Engineering News Record*.

If the *Engineering News Record's Construction Cost Index for Seattle* is no longer published, the Parties shall select a comparable index to value the replacement cost depreciation.

### **2.4.3 Return on Investment**

The return on investment shall equal the rate of return multiplied by the rate base that serves the Receiver.

#### **2.4.3.1 Determination of Rate of Return**

The rate of return shall equal the interest rate as published by the State of Oregon Treasury Department entitled *Oregon Bond Index – Oregon A Rated 20 Year* for the first date after the beginning of the calendar year for when the Rates will be effective. If the *Oregon Bond Index – Oregon A Rated 20 Year* is no longer published, the Parties shall select a comparable index to value the rate of return.

#### **2.4.3.2 Determination of Rate Base**

Assets that are used and useful in the provision of water to the Receiver shall be included in the rate base. Assets that are used solely for the provision of services to Provider’s retail customers shall not be included in the rate base. Each year Provider shall undertake an analysis of the assets used to provide wheeling services to the Receiver and revise the assets included in rate base as appropriate.

#### **2.4.3.3 Criteria for Capitalization**

Only assets that have been or will be capitalized following standard accounting principles shall be included in rate base.

#### **2.4.3.4 Value of Rate Base**

##### **2.4.3.4.1 Asset Valuation**

The value used for the rate base shall be based on an estimate of each asset’s reproduction cost new less depreciation. Provider shall use the *Engineering News Record’s Construction Cost Index for Seattle* to estimate the reproduction cost new less depreciation for assets.

The formula for valuing rate base is:

$$RCNLD_n = BV_n \frac{ENR_n}{ENR_a}$$

Where:

RCNLD<sub>n</sub> = Replacement Cost New Less Depreciation in year n

Book Value<sub>n</sub> = Book value (i.e., original cost of the asset minus the accumulated depreciation for the asset at original costs) of the asset in rate based at year n

ENR<sub>n</sub> = Value of the Construction Cost Index for Seattle in year n as published by the *Engineering News Record*.

ENR<sub>a</sub> = Value of the Construction Cost Index for Seattle in year the asset was estimated to be placed in service as published by the *Engineering News Record*.

If the *Engineering News Record’s Construction Cost Index for Seattle* is no longer published, the Parties shall select a comparable index to value the replacement cost depreciation.

Construction work in progress (CWIP) will not be included in the rate base until the year in which an asset is reasonably expected to enter operations or as otherwise agreed to by the Parties.

##### **2.4.3.4.2 Allowance for Working Capital**

In addition to the asset values as described in Section 2.4.3.4.1, the rate base shall also include an allowance for working capital equal to 45 days of budgeted expenditures for operations and maintenance costs as described in Section 2.4.1. The allowance for working capital shall be allocated in the same manner as the operations and maintenance costs as described in Section 4.2.



#### 2.4.3.5 Tracking Requirements of Fixed Assets

Provider shall follow a standard of care common for municipal utilities to maintain records of the value of assets in its rate base. The Receiver and Provider agree that a list of assets will be compiled separately, with such assets to be included in rate base until future assets are added or existing assets are retired.

##### 2.4.3.5.1 Retirement of Fixed Assets

When an asset is retired, the asset shall be removed from the list of assets included in the rate base. In some cases, the assets will be part of a group of assets. In those cases, the value of the asset shall be removed from the value of the group of assets.

##### 2.4.3.5.2 Addition of Fixed Asset

Each year Provider will produce an estimate of the value of assets to be added to the rate base. As appropriate, the assets will be identified by function, purpose, acquisition cost, depreciation rate, and acquisition date. Unless otherwise agreed to, the acquisition costs will be the cost to be recorded in Provider's financial statements.

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### 3 ALLOCATION OF REVENUE REQUIREMENTS

The method of allocating each element of the revenue requirement is described below.

#### 3.1 ALLOCATION OF RETURN ON INVESTMENT AND RATE BASE

The rate base will be allocated to the Receiver using the base/extra-capacity method as described in the AWWA's Manual of Water Supply Practices – *M1, Principles of Water Rates, Fees and Charges*, Seventh Edition, Denver: 2017.

Each element of rate base will be allocated to one or more water functions as identified in an economic and engineering analysis of the system. The Provider shall allocate rate base in a manner consistent with the level of detail presented in Exhibit F of the Domestic Water Service Agreement.

#### 3.2 ALLOCATION TO CUSTOMER CLASSES AND COST POOLS OF CUSTOMER CLASSES

The rate base will be allocated to customer classes and groups of customer classes that participate in common cost pools in a manner similar to that described in Exhibit F of the Domestic Water Service Agreement.

#### 3.3 ALLOCATION TO WATER CUSTOMER CHARACTERISTICS

The functionalized items shall be allocated to the customer service characteristics listed below by the cost pools following the base/extra-capacity method described in the AWWA's Manual of Water Supply Practices – *M1, Principles of Water Rates, Fees and Charges*.

##### 3.3.1 Base Demands

Base demands shall be identified as described in the AWWA's Manual of Water Supply Practices – *M1, Principles of Water Rates, Fees and Charges*.



### **3.3.2 Peak-Day Demand**

Items required to meet peak-day demand shall be allocated to both base capacity and max-day extra capacity. The percentage allocated to the base capacity shall equal the quotient of the estimated quantity of water provided through a cost pool on an average-day basis divided by the estimate of the quantity of water provided during the peak day, all in millions of gallons per day (MGD). The remaining percentage (i.e., 100 percent minus the quotient described above) shall be allocated to max-day extra capacity.

### **3.3.3 Peak-Hour Demand**

Items required to meet peak-hour demand shall be allocated to base capacity, max-day extra capacity, and max-hour extra capacity. The percentage allocated to the base capacity shall equal the estimated quantity of water provided through a cost pool on an average-day basis in MGD divided by the estimate of the quantity of water provided through the same cost pools during the peak hour (in MGD). The percentage allocated to the max-day extra capacity shall equal the quotient of the estimated difference between the peak-day demand and the average-day demands, divided by the estimated peak-hour demand (in MGD). The remaining percentage shall be allocated to max-hour extra-capacity.

### **3.3.4 Customer**

Items that serve the customer, regardless of the customer's demands, shall be allocated based on the number of customers served by the customer service function. For wheeling customers, the customer service characteristic does not include the individual customers. Rather the customer service characteristic includes only the number of master meters or other Receiver accounts used to serve the Receiver.

### **3.3.5 Meter**

Meter-related items shall be allocated based on the number of equivalent meters as described in the AWWA's Manual of Water Supply Practices – *M1, Principles of Water Rates, Fees and Charges*. If the Provider and Receiver share the cost of the meter through this Agreement or another similar agreement, then the meter costs may be accounted for through that cost sharing methodology.

### **3.3.6 Fire**

Fire-related items shall be allocated based on the number of equivalent fire hydrants served.

## **3.4 ALLOCATION OF THE RETURN ON INVESTMENT**

The return on investment will be allocated based on the allocation of rate base. The return on investment will equal the value of the rate base as allocated in this exhibit times the rate of return identified in Section 2.4.3.1.

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## **4 ALLOCATION OF COSTS BY CUSTOMER SERVICE CHARACTERISTIC**

The Receiver will be allocated a percentage of the costs allocated to each customer service characteristic based on the base/extra-capacity method described in the AWWA's Manual of Water Supply Practices – *M1, Principles of Water Rates, Fees and Charges*. The percentages of

the Receiver’s total demands for each customer service characteristic shall be used to allocate costs to the Receiver for base, max-day extra capacity, and max-hour extra capacity. Estimated peaking factors may be used on estimates of average-day demand unless a more accurate method is reasonably available.

#### **4.1 ALLOCATION OF REPLACEMENT COST DEPRECIATION EXPENSE**

Replacement Cost Depreciation expense shall be allocated by using the same procedure as for rate base. The allocation of the replacement cost depreciation expense will use the same percentages as for rate base.

#### **4.2 ALLOCATION OF OPERATIONS AND MAINTENANCE COSTS**

Operations and maintenance costs will be functionalized and allocated in the same manner as rate base with the objective being an allocation methodology that follows cost-of-service principles.

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## **5 NATURE OF CHARGES**

### **5.1 FIXED MONTHLY CHARGE**

The cost allocated to the Receiver for O&M, return on investment, and replacement cost depreciation for the costs associated with meters and services, direct and indirect fire, and customer services will be paid to Provider in equal monthly installments during months in which the Provider is providing water to the Receiver. The monthly payment will be prorated for the number of days the Provider is providing water to the Receiver for months where the service is provided for less than the entire month.

### **5.2 USAGE CHARGE**

All other costs allocated to the Receiver that are not recovered through the fixed monthly charge will be recovered through rates per hundred cubic feet of wheeled water as measured by the Provider and Receiver consistent with *Section Error! Reference source not found., Error! Reference source not found.*

The Receiver will pay Provider for water wheeled to area identified in this Agreement at the calculated rate.



**TUALATIN VALLEY**  
WATER DISTRICT

**Date:** May 18, 2022  
**To:** Board of Commissioners  
**From:** Andrea Watson, Communications and Public Affairs Supervisor  
**Subject:** Adopting the 2022 Rate Advisory Committee Charter

**Requested Board Action:**

Consider adopting by motion the 2022 Rate Advisory Committee Charter.

**Key Concepts:**

The Board of Commissioners has directed staff to seek input from a Rate Advisory Committee (RAC) on policy questions related to rate affordability and rate design.

- Water rates are likely to increase to fund inflationary increases in the construction costs of the Willamette Water Supply System (WWSS) and other District operating and capital expenditures.
- To meet contractual requirements, the capital projects for the WWSS and the in-District capital improvements program (CIP) cannot be deferred or delayed.
- The District convened a RAC in 2016-17 to provide recommendations on several policies including those policies related to affordability.
- The 2022 RAC is charged with providing the Board with citizen input related to rate design and customer assistance programs.
- As currently planned, the 2022 RAC would meet in the summer and fall and present recommendations to the Board of Commissioners in the winter.

**Background:**

The scope and outreach plan for the RAC has been presented at Board work sessions and Board Finance Committee meetings over the past several months.

The District has selected a consulting team to provide technical assistance and facilitation support for the RAC. The consulting team was selected as part of the District's mission, vision, values and strategic planning project.

**Budget Impact:**

The cost of the RAC is included in the adopted 2021-23 biennial budget.

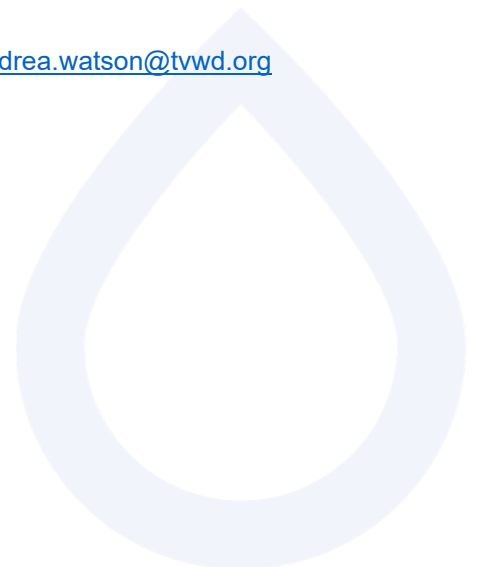
**Staff Contact Information:**

Andrea Watson; Communications and Public Affairs Supervisor; 503-848-3012; [andrea.watson@tvwd.org](mailto:andrea.watson@tvwd.org)

Paul Matthews; Chief Financial Officer; 503-848-3017; [paul.matthews@tvwd.org](mailto:paul.matthews@tvwd.org)

**Attachments:**

Proposed 2022 Rate Advisory Committee Charter



**Leadership Team Initials:**

|                               |            |  |            |
|-------------------------------|------------|--|------------|
| Chief Executive Officer (AIC) | <i>PSM</i> | Customer Service Manager                     | <i>AC</i>  |
| Chief Engineer                | N/A        | IT Services Director                         | N/A        |
| Chief Financial Officer       | <i>PSM</i> | Communications and Public Affairs Supervisor | <i>asw</i> |
| General Counsel               | N/A        | Water Supply Program Director                | N/A        |





# 2022 Rate Advisory Committee

## COMMITTEE CHARTER DOCUMENT

### **Purpose**

The 2022 Rate Advisory Committee (RAC) is a special committee, appointed by the District's Board of Commissioners, to advise the Board regarding two rate-related policy questions, which may influence the affordability of water for low-income customers.

The RAC will:

- Be briefed on the current TVWD Financial Plan and forecasted rate scenarios based on the inflationary pressures which emerged in 2021. The inflation is increasing construction and operational costs for the projects in the Willamette Water Supply System and the in-District Capital Improvement Program.
- Receive information on the recommendations from the 2016 RAC.
- Receive findings of the customer research and customer outreach efforts.
- Examine policy options for affordability of water bills for low-income customers.
- Assist the District in defining criteria for affordability.
- Explore and seek positive outcomes for customer assistance programming by using the experience of the committee members.
- Examine the District's current rate design and consider modifications of the rate design to reduce revenue volatility.
- Provide recommendations in an advisory capacity to the District's Board of Commissioners.

The RAC is a limited duration committee that will focus on the District's approach to customer affordability programs and rate design. The charge of the RAC is separate from the responsibilities of the District's citizens Budget Committee, which remains responsible for reviewing the District's budget and Capital Improvement Plan.

### **Membership**

The 2022 RAC will consist of up to 21 appointed individuals, representing the diversity of the District's stakeholders. RAC members will be appointed by the TVWD Board, based on a wide variety of selection criteria, including representation from residential, business, industry, social services, non-profit agencies, government and institutional customers. Other criteria may include gender, age and cultural diversity. The membership criteria and a framework for the appointed RAC members and their affiliations is included in the Appendix to this charter.

The RAC will have no chairperson, as the committee will work with a professional facilitator to develop consensus recommendations during the RAC process. At the conclusion of the RAC process, the RAC may be asked to select from their membership two individuals who will provide the RAC recommendations to the Board of Commissioners.

## **TVWD Board Participation**

The TVWD Board of Commissioners will assign two members to serve as Board Liaisons. The Board Liaisons will attempt to attend each RAC meeting to observe and demonstrate Board support. At times, the professional facilitator may request the Board Liaisons to answer questions and/or provide input. The Board Liaisons are not voting members of the RAC.

## **Membership Expectations**

- Members regularly attend the meetings. When members are unable to attend, please inform Andrea Watson, TVWD's RAC point of contact at [andrea.watson@tvwd.org](mailto:andrea.watson@tvwd.org) or 503-848-3012.
- Members are prepared to engage in the scheduled work of the committee.
- If applicable, members share RAC information with, and seek feedback from, their constituencies and will relay any comments back to the committee, as needed.
- Two RAC members may be chosen from the RAC membership to provide the committee's final recommendations to the TVWD Board.

## **Support to the RAC**

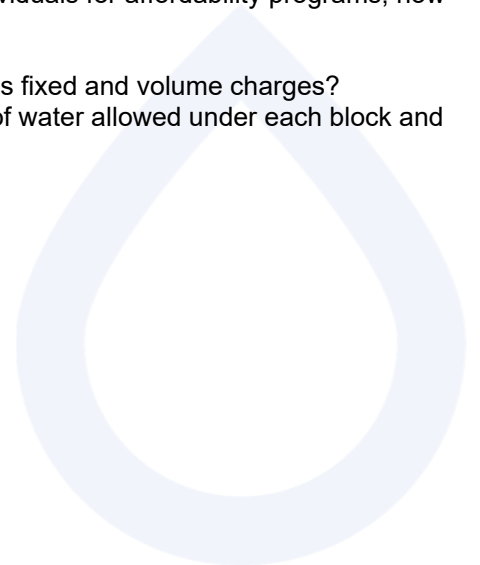
TVWD staff and the consultant team will provide support to the RAC with its activities, which may include:

- Professional facilitation
- Relevant data, technical research and informational reports
- Information from focus group with customers who may struggle to pay water utility bills/manage payment plans
- Customer survey data related to water rate design and customer bills
- Preparation and distribution of meeting agendas, handouts and notes/summaries
- Coordination of virtual meetings and facilities
- Regular and timely meeting notifications to RAC members, TVWD staff, Board members and the public

## **Committee Charge**

Committee members will review the findings and recommendations from the 2016 RAC on the following topics:

1. Affordability and Rate Structure – Using information provided by the District's consultant, the RAC will consider the following questions regarding water rate structure and affordability:
  - a. Should the District address affordability within its rate structure?
  - b. If the District addresses affordability in its rate structure, what are the options for doing so?
  - c. What are the other policy considerations (e.g., who will qualify for the affordability rate structure, how will the lost revenue from the affordability rate structure be recovered)?
2. Affordability Programming
  - a. Should the District offer additional customer assistance programs, beyond the customer emergency assistance program to addresses affordability?
  - b. If so, what are the options for doing so?
  - c. What are the other policy considerations (e.g., who will qualify individuals for affordability programs, how will rates recover the costs associated with these programs)?
3. Rate Design
  - a. Should the District adjust the allocation of revenue received from its fixed and volume charges?
  - b. Should the District adjust its block rate structure (i.e., the amount of water allowed under each block and the relative differences in rates between the blocks)?



## Proposed Rate Advisory Committee Timeline

The RAC will meet for approximately two hours at a time up to twice a month in the summer and fall. The table below presents the anticipated RAC schedule of meetings and topics to be considered.

| Date                    | Milestone/Deliverable  | Notes/Descriptions  |
|-------------------------|--|---|
| Wed., February 16, 2022 | CEO Announcement to Board                                      | Regular Board meeting   |
| March/April 2022        | Seek feedback on RAC plan/scope                                | Board of Commissioners and Finance Committee meetings   |
| April 2022              | Consultant technical/facilitator selected<br>Draft RAC Charter |   |
| May 2022                | Adopt RAC Charter  | Regular Board meeting   |
| June 2022               | Board to appoint RAC members                                   |   |
| August 2022             | RAC Meeting 1  | Initial meeting; overview of RAC Charter and policies for review, review current District's Financial Plan and rate projections, review 2016 RAC Recommendations, policy issues for consideration, and approach for considering policy issues |
| September 2022          | RAC Meeting 2  | Technical briefing: Affordability rate structures and customer assistance programs  |
| September 2022          | RAC Meeting 3  | Answer questions from RAC Meeting 2<br>Review Policy options<br>Technical briefing: Fixed and Volume Rate Designs   |
| October 2022            | RAC Meeting 4  | Answer questions from RAC Meeting 3<br>Review Policy options<br>Prepare recommendations   |
| November 2022           | RAC Meeting 5 (if needed)                                      | Review Policy options<br>Prepare recommendations  |
| December 21, 2022       | RAC presents recommendations to the Board                      | Regular Board meeting   |

## Appendix

### Rate Advisory Committee Selection Criteria

- Ability to work cooperatively and productively with a committee of diverse interests.
- Ability to comprehend and use technical information and to make sound recommendations. (However, a background in finance is not required).
- Ability to represent and/or understand a variety of perspectives related to a project or issue.
- Have strong communication skills.
- Understand TVWD's role as a service provider within Washington County.
- Be willing to share accurate information with other RAC members and the community.
- Geographic diversity within TVWD boundaries.
- Diversity in cultural background, age and gender.

### 2022 Rate Advisory Committee Members

| NAME | AFFILIATION | REPRESENTING                                     |
|------|-------------|--|
|      |             | Customer Assistance Provider                     |
|      |             | Customer Assistance Provider                     |
|      |             | Culturally Specific Provider                     |
|      |             | Culturally Specific Provider                     |
|      |             | Business Organization or Chamber                 |
|      |             | Business Organization or Chamber                 |
|      |             | Customer Manufacturing                           |
|      |             | Customer Property Manager/HOA/Multifamily        |
|      |             | Customer Property Manager/HOA/Multifamily        |
|      |             | Customer Residential Metzger – Southeast         |
|      |             | Customer Residential Aloha - Central             |
|      |             | Customer Residential Bethany - North             |
|      |             | Customer Residential Cooper Mountain - Southwest |
|      |             | Partner City/County                              |
|      |             | Partner Special District (THPRD)                 |







**Date:** May 18, 2022  
**To:** Board of Commissioners  
**From:** Paul L. Matthews, Chief Financial Officer  
**Subject:** Approval of the District's 2022-23 Financial Plan

**Requested Board Action:**

Consider adopting a resolution approving the District's 2022-23 Financial Plan.

**Key Concepts:**

- At its March 20, 2019, regular meeting, the Board adopted the District's *Financial Management Policies* by Resolution 08-19. The *Financial Management Policies* require management to prepare a Financial Plan at least every two years for the Board's approval.
- Since the Board's approval of the District's 2021-23 Financial Plan, inflationary cost increases for the Willamette Water Supply System (WWSS) and other District operating and capital expenditures require an update to the District's Financial Plan.
- At various public meetings, management provided the Board information to assess risks and benefits of various capital and operational strategies. This process culminated in the Board's April 20, 2022, regular meeting where management presented several financial strategies to the Board. By motion, the Board approved Financial Strategy 2B which provided management the guidance it needed to develop the proposed 2022-23 Financial Plan.
- Management has prepared the detailed proposed 2022-23 Financial Plan that supports the Board-approved Financial Strategy. Management will present the proposed 2022-23 Financial Plan and answer questions and address concerns.
- Staff requests the Board approve the 2022-23 Financial Plan by resolution.

**Background:**

One key responsibility of the Board of Commissioners is the oversight of the financial management of the District. To provide this important oversight, the Board of Commissioners has provided management guidance to prepare the District's 2022-23 Financial Plan consistent with the requirements of the District's *Financial Management Policies*.<sup>1</sup> Management has prepared the proposed 2022-23 Financial Plan and requests the Board approve that Proposed Financial Plan.

---

<sup>1</sup> The Board of Commissioners adopted the District's *Financial Management Policies* by Resolution 08-19 on March 20, 2019.

Management has engaged the Board in several discussions throughout the fall and winter to develop guidance for the District's Financial Plan. At its regular meeting on April 20, 2022, the Board approved the District's Financial Strategy which is the basis for the proposed Financial Plan under consideration.

The approved Financial Strategy, and the corresponding Financial Plan, recognizes the District's current financial situation as it continues to invest in the WWSS and Willamette Intake Facilities (WIF) during this period of high inflationary pressure on costs. Both the WWSS and WIF are major infrastructure projects that are on a critical schedule that must be completed by June 30, 2026, to correspond with the conclusion of the wholesale water agreement with the City of Portland.

The approved Financial Strategy considers the current economic environment and the impact that inflation has on the District's operating and capital expenditures. In addition, the Financial Strategy attempts to anticipate future construction risk and other risks of the WWSS, WIF and the District's other capital and operating expenditures. The Financial Strategy and the proposed Financial Plan attempt to balance these risks to align with the Board's guidance.

Specifically, the proposed Financial Plan increases water rates to allow additional borrowing to fund the inflationary increases in the WWSS and other District capital expenditures. This strategy is intended to reduce the risk of future rate shock for customers and/or financially driven cost increases that could result from inadequate financial capacity to complete the WWSS and WIF in a timely manner.

In addition to integrating the Board's approved Financial Strategy, management has developed the Financial Plan consistent with the requirements of the Board's adopted *Financial Management Policies*. The District's *Financial Management Policies* require the development of a Financial Plan at least every two years. Because of the current inflationary environment, management is proposing the 2022-23 Financial Plan for Board approval. Like prior District Financial Plans, the proposed 2022-23 Financial Plan is based on the District's long-term financial forecast that forecasts costs and revenues over a 30-year period. This proposed 2022-23 Financial Plan is the third formal Financial Plan that management has proposed as required by the *Financial Management Policies*.

Staff will present the proposed 2022-23 Financial Plan and answer questions regarding the assumptions and results.

### **Budget Impact:**

The cost of preparing the proposed Financial Plan and the presentations is within the District's biennial budget.

### **Staff Contact Information:**

Paul L. Matthews; Chief Financial Officer; 503-848-3017; [paul.matthews@tvwd.org](mailto:paul.matthews@tvwd.org)

Joe Healy; Senior Management Analyst; 503-848-3085; [joe.healy@tvwd.org](mailto:joe.healy@tvwd.org)

### **Attachments:**

Proposed resolution

Proposed 2022-23 Financial Plan



**Leadership Team Initials:**

|                               |            |  |                    |
|-------------------------------|------------|--|--------------------|
| Chief Executive Officer (AIC) | <i>POW</i> | Customer Service Manager                     | <i>AC</i>          |
| Chief Engineer                | <i>CEP</i> | IT Services Director                         | N/A                |
| Chief Financial Officer       | <i>POW</i> | Communications and Public Affairs Supervisor | <i>ASW</i>         |
| General Counsel               | <i>CS</i>  | Water Supply Program Director                | <i>(Signature)</i> |





**TUALATIN VALLEY**  
WATER DISTRICT

## RESOLUTION NO. 07-22

### A RESOLUTION APPROVING THE DISTRICT'S 2022-23 FINANCIAL PLAN

WHEREAS, the Board of Commissioners adopted the Tualatin Valley Water District's *Financial Management Policies* by Resolution 08-19 (Policies), and the Policies require the District to periodically prepare a Financial Plan for Board approval; and

WHEREAS, the local, national, and global economy has recently experienced historically significant inflationary pressure; and

WHEREAS, the District's currently approved Financial Plan requires updating to account for the effects of the recent inflation; and

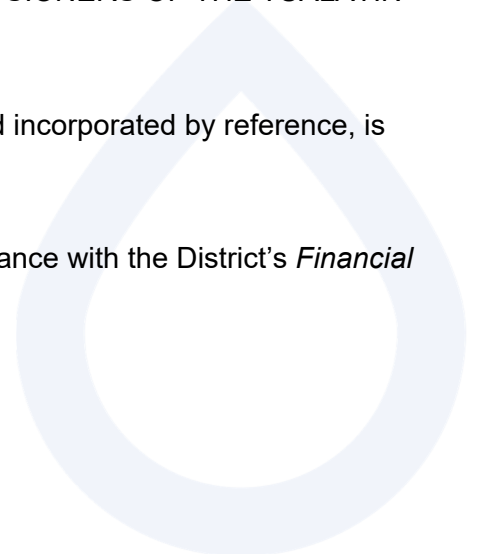
WHEREAS, with assistance of management, the Board has assessed risks and benefits of various capital and operational plans which factor into rates, borrowing needs and levels of financial reserves; and

WHEREAS, at its April 20, 2022, regular meeting, the Board approved an updated Financial Strategy for the District which provided management guidance that balances risks, costs and benefits to allow management to prepare the proposed 2022-23 Financial Plan.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF THE TUALATIN VALLEY WATER DISTRICT THAT:

Section 1: The 2022-23 Financial Plan attached hereto as Exhibit 1 and incorporated by reference, is hereby approved.

Section 2: Management will prepare updated Financial Plans in accordance with the District's *Financial Management Policies*.



Approved and adopted at a regular meeting held on the 18<sup>th</sup> day of May 2022.

---

Todd Sanders, President

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Jim Doane, Secretary



# 2022-23 FINANCIAL PLAN

Tualatin Valley Water District

May 2022

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# 1 Introduction

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Tualatin Valley Water District (TVWD or *District*) serves about 60,000 accounts in parts of Washington County, Oregon. The District's service area is about 41 square miles, home to approximately 218,000 people in portions of the cities of Beaverton, Hillsboro, Tigard, and unincorporated Washington County. In the fiscal year ended June 30, 2021 (FY2021), the District supplied an average of 22.2 million gallons of water per day (MGD) to its customers. The daily amounts ranged from a minimum of approximately 14.2 million gallons (MG) to a peak day of 39.1 MG.

To provide this service to its customers, the District currently relies on three water sources: the City of Portland Water Bureau (Portland), the Joint Water Commission (JWC)<sup>1</sup>, and Grabhorn Aquifer Storage and Recovery (ASR). The District's capacity from Portland includes 42.3 MGD in the Washington County Supply Line (WCSL).<sup>2</sup> The District also has 14.5 MGD available from the JWC. The total of these amounts is well above the average and peak daily flow requirements of the District's customers.

To deliver water to its customers, the District maintains approximately 758 miles of pipe, ranging in size from 2 to 60 inches. Thirteen pumping stations move water throughout the District. There are 23 finished water reservoirs with a combined storage capacity of 67 MG. The major pumping stations and the reservoirs have full telemetry control systems. The District's water system is monitored 24 hours a day, seven days a week. In addition to monitoring water flows and pressure, the District's state-of-the-art Supervisory Control and Data Acquisition (SCADA) system monitors several water quality parameters and security alarms. If the system identifies anything out of the ordinary, alarms alert an operator to the possible problem and staff are dispatched as needed.

Maintaining a reliable and efficient water system is a major focus at TVWD. Infrastructure projects are planned and constructed year-round to meet current and future water needs. At any given time, the District will be engaged in a variety of these projects including pipe replacement, reservoir construction, and building improvements. Additionally, the District is engaged in a major infrastructure project to develop a new water source for the Tualatin Valley. The source development project is commonly referred to as the Willamette Water Supply Program (WWSP) and includes capital improvements that are part of two new regional water entities. The District serves as the Managing Agency for each entity:

1. Willamette Intake Facilities (WIF) Commission – The WIF is a joint venture of the District and the cities of Beaverton, Hillsboro, Sherwood, Tigard, and Wilsonville to jointly own and operate a raw water intake facility located at the current Willamette River Water Treatment Plant in Wilsonville, Oregon.
2. Willamette Water Supply System (WWSS) Commission – The WWSS is a joint venture of the District and the cities of Beaverton and Hillsboro to construct and operate supply facilities that convey raw water from the WIF, treat the raw water to potable standards, and convey the potable water to each partner's distribution systems.<sup>3</sup>

---

<sup>1</sup> The District is a partner in the JWC along with the cities of Beaverton, Forest Grove, and Hillsboro.

<sup>2</sup> The WCSL is a 60-inch gravity supply conduit that flows approximately 14 miles from Portland's Powell Butte Reservoirs to the District's eastern boundary.

<sup>3</sup> The WWSP website (<http://www.ourreliablewater.org/>) provides additional information including activities-to-date, maps, and other related information for all WIF and WWSS projects.

The WWSP began in FY2014 and will be complete in FY2026. Its total program cost (including inflation) is substantial at approximately \$1.6 billion. Until 2018, the District had assumed that it would fund its projected share (approximately \$729 million at the time) with cash and revenue bond proceeds.<sup>4</sup> In 2019, the District and its WWSS partner, the City of Hillsboro (Hillsboro), applied for loans through the Water Infrastructure Finance and Innovation Act (WIFIA) program, a federal loan and guarantee program administered by the U.S. Environmental Protection Agency (EPA). The District closed its original WIFIA loan agreement on August 2, 2019 and Hillsboro closed its agreement shortly thereafter. Section 5.1.1 provides additional details on the District’s original WIFIA loan, amendments made in the spring of 2020, and the District’s re-executed loan which closed on September 15, 2020.

To forecast its financial resource requirements, including future revenues from rates and charges, the District maintains a financial forecast model (Forecast) that is used to analyze revenue requirements<sup>5</sup> scenarios under alternative capital improvements plans and cost assumptions.

## 1.1 The Forecast Model

---

This Financial Plan summarizes the Forecast results, which are based on the District’s latest data and assumptions. These data and assumptions include capital improvement plan (CIP) costs, operations and maintenance (O&M) costs, rate and non-rate revenues, system development charge (SDC) collections, reserve funds, and various assumptions around interest rates and cost escalation factors.

The model examines the impacts of funding capital improvements with a mix of rate revenue, reserves, system development charges, and proceeds from future borrowings. The scenario presented in this Financial Plan is based on the District’s latest CIP projections, budget numbers, and collective estimates of interest rates and escalation factors as of May 2022. The scenario is projected to generate enough revenue to meet the District’s future revenue requirements, maintain prudent reserve fund balances, exceed target minimum debt service coverage ratios, and mitigate the impacts of the new Capital Financing Plan on the District’s projected net leverage ratio.

The Forecast that this Financial Plan is based on uses the 30-year planning period of FY2022 through FY2051. However, in most instances, this Financial Plan provides summary data from the first 10 years of the forecast period (i.e., FY2023-FY2032). Throughout this document, this period may be referred to as the “10-year presentation period” or simply the “presentation period”.

## 1.2 Notable Changes from Prior Financial Plan

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### 1.2.1 COVID-19

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Although the COVID-19 pandemic is not new this year, the economic pressures it kickstarted are still having impacts on the District’s financial performance. To measure these impacts, the District continues to monitor key indicators including the average age of account receivable (AR Aging) and days of sales outstanding (DSO). Both metrics are helpful measures of potential impacts on future collections. Additional measures of account receivable (AR) balances are used to compare the total balance of unpaid bills over time. The next page provides specific comparisons of this metric since March 2020.

---

<sup>4</sup> WWSP partner costs will be funded individually by the District’s partners, with payments made through the District as Managing Agency of the WWSP.

<sup>5</sup> Revenue requirements include cash-funded capital improvements, debt service, and operational expenditures.

During the COVID-19 pandemic, the District’s implemented a policy to discontinue shutting off water service for nonpayment. That policy ended the week of July 12, 2021 and resulted in many customers, formerly in shutoff status, to either pay their bills or contact the District to make payment arrangements. Though this policy reversal brought many customers into good standing with the District, there are still many other customers that have outstanding account receivable (AR) balances that are beyond 60 days. A monthly comparison of account receivable (AR) balances aged at 60, 90, and 120+ days shows a significant increase in older AR balances since the COVID-19 pandemic began:

- March 2020 – At the beginning of the COVID-19 crisis, the totals of water AR balances that were 60, 90, and 120+ days were \$91, \$51, and \$42 thousand, respectively, totaling \$184 thousand.
- March 2021 – One year later, total AR balances at 60, 90, and 120+ days were \$190, \$120, and \$475 thousand, respectively, totaling \$785 thousand.
- March 2022 – Total AR balances at 60, 90, and 120+ days were \$175, \$150, and \$556 thousand, respectively, totaling \$881 thousand. This represents an \$697 thousand (379%) increase since the COVID-19 pandemic crisis began, and an increase of \$96 thousand (11%) in the 12 months between March 2021 and March 2022.

As the effects of the COVID-19 pandemic are still felt in 2022, the District continues to monitor its revenues, expenses, and collections to anticipate potential impacts on the District’s financial performance. The District increased its allowance for doubtful accounts to account for the increased aging of its AR and DSO. Moving into the second half of the current biennium and looking ahead to the next, the District’s ability to plan for these and other market-driven impacts will become a central focus. The next three years will be the peak spending period for the WWSP, with planned costs pushed significantly higher over the last six months due to increases in the final bids for major elements of the program including the water treatment plant and raw water facility.

### 1.2.2 Inflationary Pressure on Capital and Operating Expenditures

Like other water utilities, the current inflationary environment is putting increasing pressure on the District’s capital and operating expenditures. In fact, recent bids for WWSS infrastructure increased the total cost of the program from \$1.3 billion to approximately \$1.6 billion. The District’s share of this increase is approximately \$200 million. The District is also seeing bids come in higher than estimates for its non-WWSS projects and expects inflationary pressures to impact its operating costs over the next several years. In an effort to prepare the District for these potential realities, this Financial Plan incorporates revised assumptions, presented in Table 1-1, for the effects of inflation and interest.

**Table 1-1: Updated Assumptions in the District’s Forecast and Financial Plan**

|                 | Annual Escalation Rates |              |        |
|-----------------|-------------------------|--------------|--------|
|                 | Prior                   | Next 3 years | Future |
| CIP - Pipelines | 3.5%                    | 4.0%         | 3.5%   |
| CIP - Other     | 3.5%                    | 8.0%         | 3.5%   |
| O&M             | 4.5%                    | 8.0%         | 4.5%   |

|                     | Interest Rate Assumption |                |
|---------------------|--------------------------|----------------|
|                     | Prior Assumption         | New Assumption |
| Rev. Bond Financing | 3.5%                     | 5.5%           |

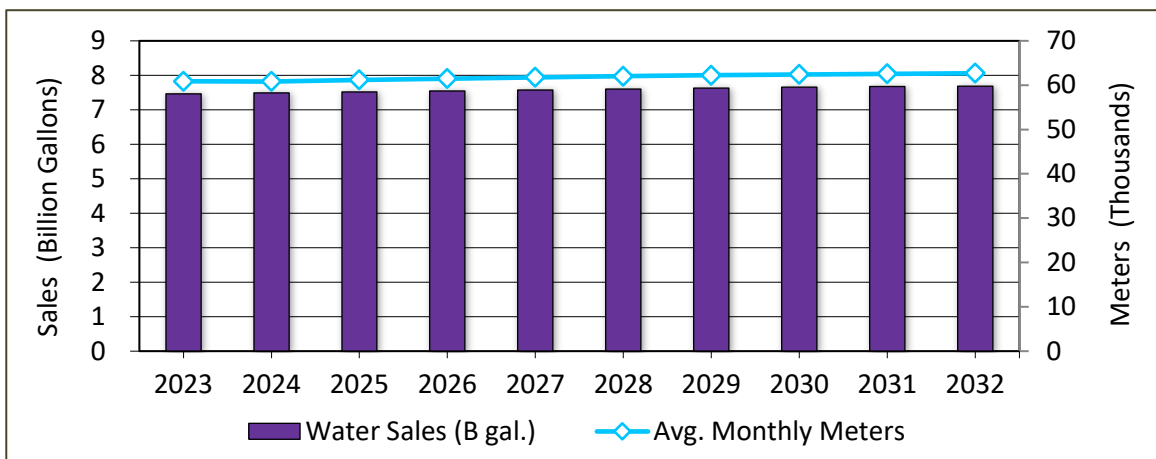
### 1.3 Financial Plan Section Descriptions and Highlights

This Financial Plan guides the financial management of the District, and it will be updated periodically to reflect future assumptions and outcomes. In addition to regular updates, the District anticipates that its Financial Plan will evolve to provide additional information intended to help the Board and management in the execution of their responsibilities. Therefore, content or sections may change over time. The next four pages present brief overviews for each section of this Financial Plan.

**SECTION 2 – FINANCIAL MANAGEMENT OBJECTIVES AND POLICIES.** This section describes the objectives that form the basis of the District’s financial management activities, and the key financial planning assumptions and policies used in the Forecast model.

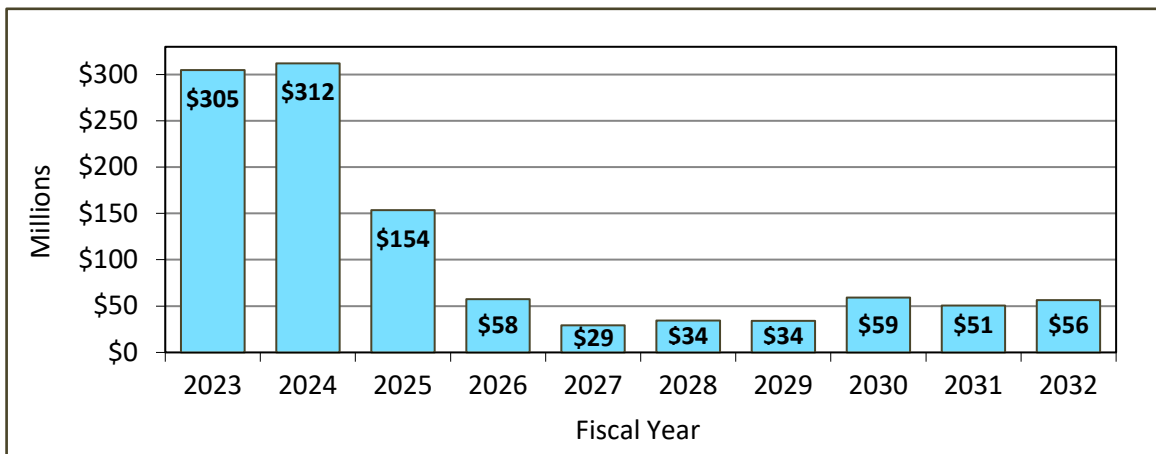
**SECTION 3 – WATER SALES PROJECTIONS.** This section describes the District’s water sales forecast and the data used in the preparation of this Financial Plan. Figure 1-1 presents projected annual water sales and average meters served.

Figure 1-1: Water Sales and Meters Forecast by Fiscal Year



**SECTION 4 – CAPITAL IMPROVEMENT PLAN.** This section describes various elements of the District’s CIP, including projected costs by category. Figure 1-2 provides a summary of projected CIP expenditures over the 10-year presentation period. Total expenditures over this period are approximately \$1.09 billion.

Figure 1-2: Projected CIP Expenditures



**SECTION 5 – CAPITAL FINANCING PLAN.** This section provides a detailed overview of the types and anticipated timing of debt required to finance the CIP and the methodology used to optimize the District’s capital financing mix (Figure 1-3). Section 5 also describes the debt assumptions used in the Forecast model and projections of future debt repayments (Figure 1-4).

Figure 1-3: Five-Year Financing Mix (Cash v. Debt, FY2023-FY2027)

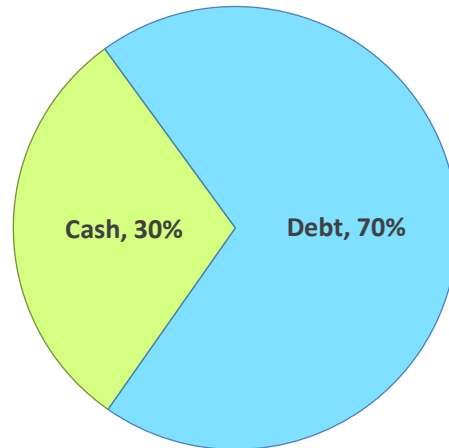
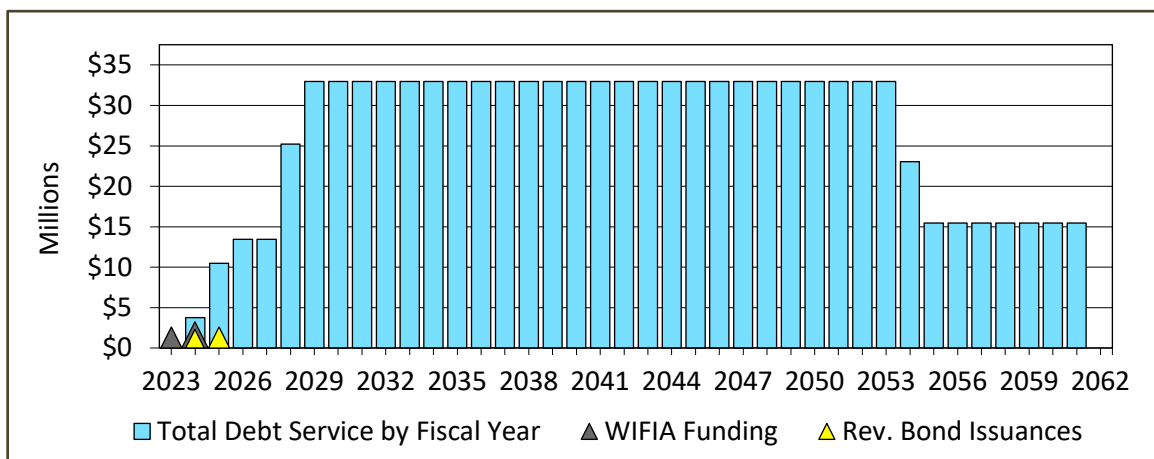


Figure 1-4: Projected Debt Repayments (Total Debt Service on WIFIA and Revenue Bonds)



**SECTION 6 – FINANCIAL FORECAST.** This section demonstrates the overall feasibility of the District’s capital financing plan. It provides descriptions of the District’s current and projected rates and charges, and descriptions of the projected sources and uses of funds during the presentation period.

Figure 1-5 (next page) presents the Forecast customer impacts over the presentation period, including typical monthly bills and projected rate revenue adjustments. For the first three years (FY2023-FY2025) of the presentation period, the graph presents two rate adjustments per year based on recent direction from the Board. Additional details on the Board’s direction and Forecast rate adjustments are provided in Section 6.2 – *Projected Rates and Charges*.



Figure 1-5: Rate Adjustments and Typical Bill Impacts by Fiscal Year

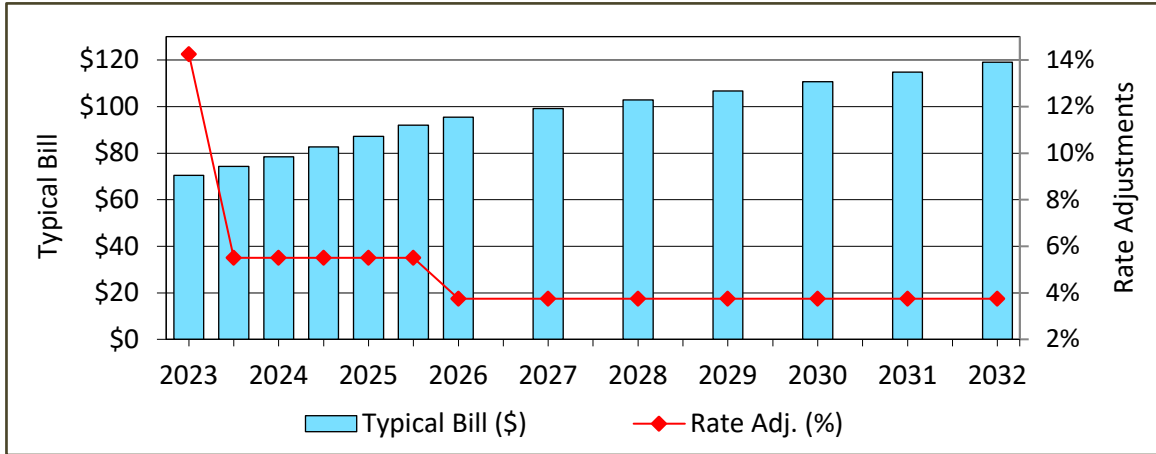


Figure 1-6 below shows that projected debt service coverage (DSC)<sup>6</sup> will exceed the District’s target minimum of 2.0x for the foreseeable future. Note that Figure 1-6 presents ten years of results beginning with FY2025 instead of FY2023. This is to show projected DSC for a period after which the bulk of the District’s near-term debt service requirements will be in place.

Figure 1-6: Projected Debt Service Coverage Ratio

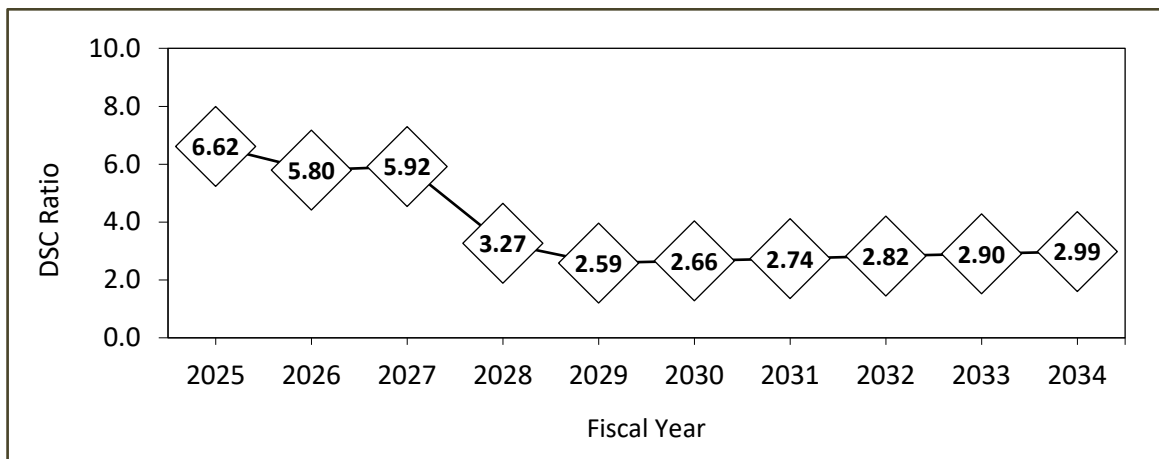
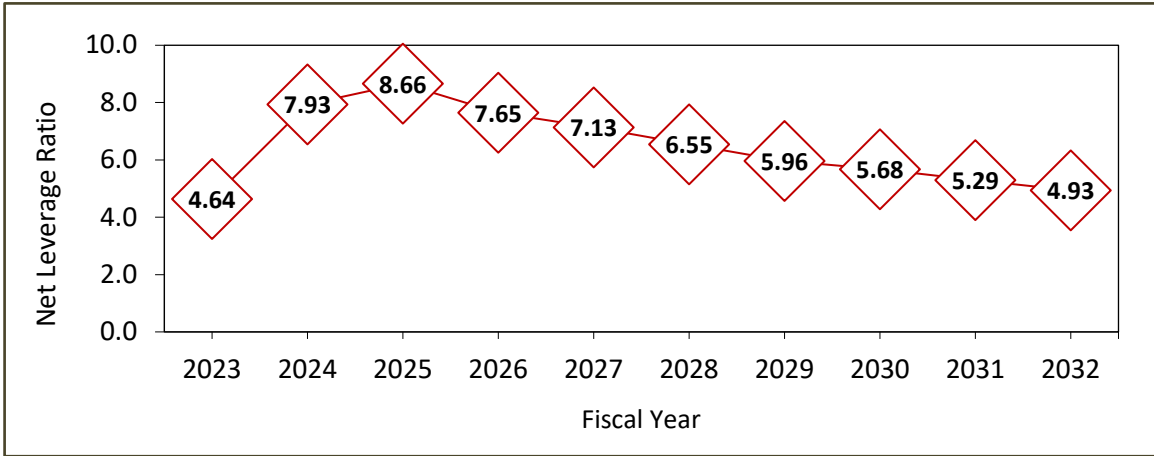


Figure 1-7 shows that the District’s estimated net leverage ratio will peak at 8.66x in FY2025 (when the District concludes its planned debt financing for the WWSS) and then decline annually in future years.<sup>7</sup>

<sup>6</sup> A DSC ratio measures the availability of current financial resources to pay for debt service. It is the ratio of annual revenues (net of operating expenses) to total annual debt service.

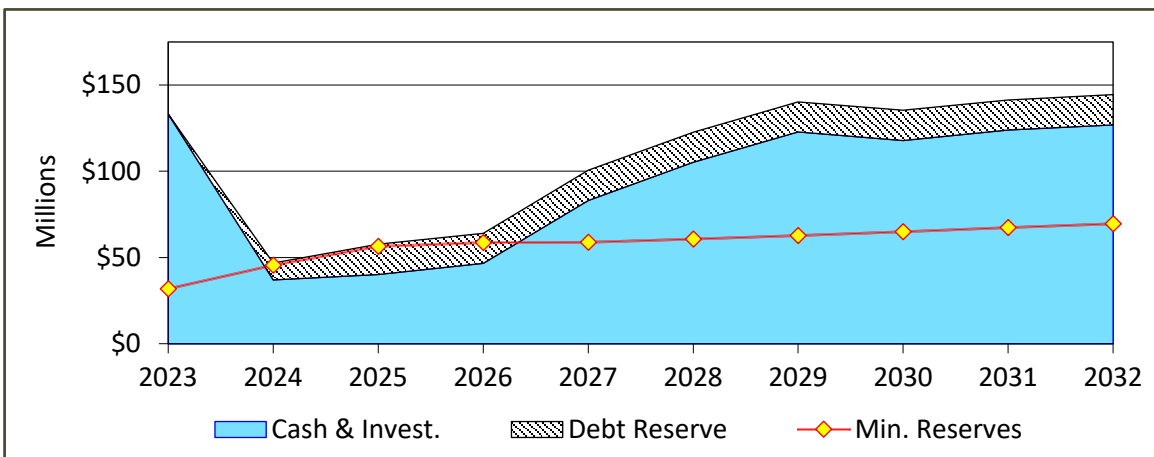
<sup>7</sup> For background information on the Net Leverage ratio, see Section 2.2.1.1 in this report.

Figure 1-7: Projected Net Leverage Ratio



**SECTION 7 – FUNDS AND RESERVES.** This section describes the summary funds used in the Forecast model. The projections in this section, summarized in Figure 1-8, demonstrate that the District will have enough liquidity to meet both its operating and capital investment commitments.

Figure 1-8: Projected Year-End Cash Balances by Fiscal Year



**APPENDICES.** Along with a service area map inside the back cover, the Appendices include the following:

- Appendix A – Proposed Financial Plan Assumptions for the Financial Management Policies
- Appendix B – Ordinance 01-19 – Authorizing the Issuance of Debt
- Appendix C – Master Revenue Bond Declaration
- Appendix D – First Supplement to Master Revenue Bond Declaration
- Appendix E – Parity Certificate and Transcript Documents
- Appendix F – PERS Valuation Report
- Appendix G – Forecast Model Summary Results
- Appendix H – Map – Tualatin Valley Water District (Washington County, Oregon)

## 1.4 Conclusion

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It must be noted that many assumptions were employed in the financial planning analysis underlying this document. For this reason, the results presented herein are not concrete in nature and should be considered as planning estimates.

In the future, the actual rate adjustments required to fund revenue requirements may vary from the estimates presented in Section 6 – *Financial Forecast*. As time passes and projections become reality, future capital requirements, O&M costs, customer demands, and other assumptions will influence the accuracy of these estimates. Therefore, the District will continue to take great care to mitigate risk by following prudent management practices, including reviewing rates and revenues annually (at a minimum) to see if additional adjustments are necessary.

## 2 Financial Management Objectives and Policies

---

This Financial Plan incorporates the Board’s financial policies and objectives into an actionable plan that guides the District’s financial activities. To develop the District’s Financial Plan, the Board considers alternative financial outcomes at public meetings and workshops periodically throughout the year. The Forecast is used to inform the Board on the impact that various policy decisions have on the District’s financial outcomes. This includes, for example, changes in water rates, use of long-term debt, etc.

Most of the District’s financial policies are included in its *Financial Management Policies* document.<sup>8</sup> In addition to the *Financial Management Policies*, the Board separately adopts the District’s *Investment Policy* annually as required by Oregon law.<sup>9</sup>

The aim of this section is threefold:

- Provide context for understanding the policies in terms of financial management objectives.
- Describe key District financial policies, including recent enhancements.
- Present background information on credit ratings.

### 2.1 Financial Management Objectives

---

This section provides a context for understanding the District’s financial policies in terms of certain financial management objectives –

- Promoting Stability and Continuity
- Providing Best Value to the Community
- Providing a Definitive Policy Framework for District Staff
- Managing Risks to Financial Condition
- Following Established Public Management Best Practices

**PROMOTING STABILITY AND CONTINUITY.** The long-term, strategic intent articulated by many financial policies necessarily demands a long-term perspective from the organization. These policies promote stability and continuity by institutionalizing good financial management practices. They also prevent the need to re-invent responses to recurring issues.

**PROVIDING BEST VALUE TO THE COMMUNITY.** By clarifying and crystallizing strategic intent for financial management, financial policies define a shared understanding of how the organization will develop its financial practices and manage its resources to provide the best value to the community.

**PROVIDING A DEFINITIVE POLICY FRAMEWORK FOR DISTRICT STAFF.** Financial policies define limits on the actions staff may take. The policy framework provides the boundaries within which staff can innovate to further the organization's strategic intent.

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<sup>8</sup> The District’s current *Financial Management Policies* were adopted by the Board of Commissioners on March 20, 2019 by Resolution 08-19. The document is available on the District’s website, under “Supporting Documents” on the Finance Department page (<https://www.tvwd.org/finance>).

<sup>9</sup> The District’s current *Investment Policy* was adopted by the Board of Commissioners on January 19, 2022 by Resolution 01-22.

*MANAGING RISKS TO FINANCIAL CONDITION.* A key component of governance accountability is not to incur excessive risk in the pursuit of public goals. Financial policies identify important risks to financial condition.

*FOLLOWING ESTABLISHED PUBLIC MANAGEMENT BEST PRACTICES.* The Government Finance Officers Association (GFOA), through its officially adopted Best Practices endorsement of National Advisory Council on State and Local Budgeting (NACSLB) budget practices and the GFOA Distinguished Budget Presentation Award Program, has recognized financial policies as an essential part of public financial management.

## 2.2 Key Financial Policies and Assumptions

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The District’s financial policies cover a range of diverse activities. However, for long-range financial planning, policies related to capital financing and reserve levels are of particular importance. The following subsection describes each of these key policies in greater detail.

### **Financial Planning Assumptions**<sup>10</sup>

- Debt Service Coverage Ratio
- Net Leverage Ratio
- Additional Bonds Test
- Debt Structure Considerations

### **Reserve Policies**

- Working Capital
- Capital Reserves
- Debt Service Reserves

### 2.2.1 Financial Planning Assumptions

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The financial planning assumptions provide guidance for future debt issuance, structure, and management. The assumptions are incorporated into policies that establish certain limits which recognize the District’s capital requirements, its ability to repay financial obligations, and the existing legal, economic, financial, and debt market conditions. Specifically, the policies are intended to assist the District in the following:

1. Evaluating available debt issuance options;
2. Maintaining appropriate capital assets for present and future needs;
3. Promoting sound financial management through accurate and timely information on financial conditions;
4. Protecting and enhancing the District’s credit rating(s); and
5. Safeguarding the legal use of the District’s financing authority through an effective system of internal controls.

The District’s debt financing assumptions and debt structure considerations are discussed in the following two subsections. For more detail and additional information on the District’s policies on *Debt Financing*, please see the District’s *Financial Management Policies* document.

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<sup>10</sup> Assumptions used in the Forecast are from the District’s *Financial Management Policies*, except for the additional WIFIA-related assumptions described in *Section 5.3.1 – WIFIA Debt Assumptions*.

### 2.2.1.1 Forecast Model Assumptions for Debt Financing

---

**DEBT SERVICE COVERAGE (DSC) RATIO.** A DSC ratio measures the availability of current financial resources to pay for debt service. It is the ratio of annual revenues (net of operating expenses) to total annual debt service. For example, a DSC ratio of 1.0x means that after paying all operating expenses<sup>11</sup>, an issuer only has exactly enough funds to pay debt service obligations. Similarly, a DSC ratio of 1.5x means that after paying all operating expenses, an issuer has 50% more than the amount needed to pay debt service obligations. This additional capacity allows the issuer to fund other capital expenditures with cash (thereby resulting in lower debt leverage) and providing a buffer should revenue be unexpectedly lower (e.g., due to weather or other unforeseen events), or operating expenses being unexpectedly higher.

DSC is one of the primary metrics used by credit ratings agencies and investors to assess the credit worthiness of an issuer. In this way, it is like a ratio of monthly income to mortgage payment used in qualifying for a home mortgage. All other things being equal, an issuer with a higher DSC ratio may indicate less borrowing, better credit ratings, and a lower cost of debt. Conversely, a similar utility with a lower DSC ratio may indicate more debt outstanding, lower credit ratings, and more expensive debt.

The District's master revenue bond declaration (Master Declaration) is the document that governs debt issuance. In this document, the District commits to set rates at levels to meet rate covenants and additional bonds tests imposed by then-existing financing covenants. In addition to the legal and/or contractual requirements associated with future revenue bonds, the District will strive to maintain a minimum annual debt service coverage ratio of 2.0 times average annual debt service.<sup>12</sup>

**NET LEVERAGE RATIO.** A net leverage ratio measures an entity's total outstanding debt to its financial resources. It is similar to the DSC ratio described above, but different in its measurement and perspective:

- The DSC ratio is a measurement of annual net revenues to total annual debt payments. Target DSC ratios are set as a *minimum* bar to clear.
- Conversely, net leverage measures cumulative debt outstanding to revenue (and other resources), and the target is set as a *maximum* "not-to-exceed" ratio.

Historically the District assumed a cap on its use of long-term debt as a measure of its maximum leverage. However, in its 2021-2023 Financial Plan,<sup>13</sup> the District began using the net leverage ratio calculation as another guide in planning future debt financings. The *Proposed Financial Plan Assumptions for the Financial Management Policies* in Appendix A include targets for net leverage, where the projected net leverage ratio in the Financial Plan:

- Shall not exceed 8.0x for two or more consecutive years, and
- Shall not exceed a net leverage ratio of 7.0x for more than four consecutive years.

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<sup>11</sup> Excluding depreciation. Although depreciation is an operating expense, it is a non-cash expense and is therefore excluded from the calculation of the DSC ratio.

<sup>12</sup> The District sets its minimum DSC ratio target higher than the expected required minimum of 1.25 times debt service. This is a matter of prudent financial policy, in which the District strives to achieve a higher standard than the requirements typically set forth in bond covenants.

<sup>13</sup> The 2021-2023 Financial Plan (Issued May 2021) is available on the District's website, under "Supporting Documents" on the Financial Plan page (<https://www.tvwd.org/finance/page/financial-plan>).

The addition of the net leverage ratio to the District's financial planning is due, in part, in response to credit rating criteria used by ratings agencies. It is also replacing the assumed debt issuance cap previously used.

The District's Board of Commissioners has demonstrated a strong commitment to the financial health of the District. This commitment is demonstrated by a history of implementing changes in water rates that are necessary to meet the needs of the water system and customers. Therefore, DSC is not typically considered a constraint at the District. However, given the substantial amounts of debt funding that will be required for its CIP, the District's net leverage ratio may become a constraining factor at some point. This is especially true when considering the perspectives of the credit market and ratings agencies.

#### 2.2.1.2 Debt Structure Considerations

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**MATURITY OF DEBT.** The final maturity of the debt shall not exceed, and preferably be less than, the remaining useful life of the assets being financed, and to comply with Federal tax regulations, the average life of a financing shall not exceed 120% of the average life of the assets being financed.

**DEBT SERVICE STRUCTURE.** Debt service payments for any new money debt issue will generally be structured to create more level debt service payments over the life of the debt. Exceptions are permitted for refunding debt that will have varying principal repayments structured to fill in the gaps created by refunding specific principal maturities. The Chief Financial Officer (CFO) may also structure the amortization of principal to wrap around existing obligations or to achieve other financial planning goals. Deferring the repayment of principal should be avoided except in select instances where it will take time before project revenues are sufficient to pay debt service.

**LIEN STRUCTURE.** Senior and subordinate liens may be used to maximize the most critical constraint, either cost or capacity, thus allowing for the most beneficial leverage of revenues.

**CAPITALIZED INTEREST.** The District may elect to fund capitalized interest in connection with the construction of certain projects if revenue from such projects is not initially available to pay debt service on related debt. Additionally, the District may consider funding capitalized interest if it would minimize the financial impact of such borrowing on District customers.

**RESERVE FUNDS.** A reserve fund for a debt issuance may be required for credit rating or marketing reasons. If required, such reserve funds can be funded with:

- The proceeds of a debt issue,
- The reserves of the District, or
- A surety policy.

A cash reserve fund will be invested pursuant to the investment restrictions associated with the respective financing documents and the District's separate investment policy. For each debt issue, the CFO will evaluate whether a reserve fund is beneficial for credit rating or marketing purposes and the prudence of funding or maintaining the reserve requirement with cash or a surety policy, in addition to determining the benefits of borrowing the necessary funds or using cash reserves.

**REDEMPTION PROVISIONS.** In general, the District will have the right to optionally redeem debt at par no later than 10 1/2 years after issuance. Redemption provisions will be established on a case-by-case basis, taking into consideration market conditions and the results of a call option analysis prior to the

time of sale. Because the issuance of non-callable debt may restrict future financial flexibility, cost will not be the sole determinant in the decision to issue non-callable debt.

*CREDIT ENHANCEMENT.* Credit enhancement (e.g., bond insurance or letters of credit) on District financings will only be used when net debt service is reduced by more than the cost of the enhancement. The District will evaluate the availability and cost/benefit of credit enhanced debt versus unenhanced debt prior to issuing any debt.

## 2.2.2 Reserve Policies

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Maintaining fund balances is an important function for the District to operate efficiently over the long run. The District's reserve policies guide the development of minimum cash balances that directly affect this District's Financial Plan, rates and charges, and budget. The accumulation or use of fund balances and reserves is a practice that may allow financial decisions in one year to affect future years. Because of the nature of these effects, these policies provide guidance to:

- District management in developing the various plans proposed to the Board, and
- The Board in making its financial decisions.

The decision to retain financial resources in fund balance or reserves directly affects:

- Financial risks from unexpected disruptions to revenue or unplanned expenditures.
- Water rates required in the current and future years.
- The District's credit rating(s).
- Other related financial matters.

The District's reserves requirements are highlighted in the following three subsections. For more detail and additional information on the District's policies on *Minimum Fund Balances and Reserves*, please see the District's *Financial Management Policies* document.<sup>14</sup>

### 2.2.2.1 Working Capital

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The District separately measures its current and non-current assets and liabilities. The District can use this distinction to calculate working capital (i.e., current assets less current liabilities). The measure of working capital indicates the relatively liquid portion of the District's assets, which constitutes a margin or buffer for meeting obligations. Additionally, credit ratings agencies consider the availability of working capital in their evaluations of the District's creditworthiness. Therefore, working capital is a crucial consideration in this Financial Plan.

The District's *Financial Management Policies* state that working capital shall be maintained at a level considered adequate to mitigate current and future risks (e.g., revenue shortfalls and unanticipated expenses) and to provide stable services and fees. The policies state that this level will be at least equal to two months of annual operations and maintenance expense (i.e., 60 days cash on hand).

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<sup>14</sup> Available on the Finance page of the District's website (<https://www.tvwd.org/finance>).



### 2.2.2.2 Capital Reserves

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The District's rate setting goals include a preference to avoid sudden and/or unexpected rate increases for customers. Capital reserves are one mechanism the District can use to lower the overall costs of acquiring capital assets by saving money early in the planning process. Capital reserve levels are determined through the financial planning process and identified in this Financial Plan.

In the Forecast model, the District targets 250 days of annual O&M for financial planning purposes. This reserve balance is intended to meet the requirements of the working capital and capital reserves targets.

### 2.2.2.3 Debt Service Reserves

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A reserve fund for a debt issuance may be required for credit rating or marketing reasons. The District fully redeemed its last outstanding revenue bonds in June of 2015 and its Debt Service Fund has not been used since that time. For planning purposes, the District assumes that any debt reserves required for future revenue bonds will be funded from the proceeds of each bond issuance.

This cash reserve fund will be invested pursuant to the investment restrictions associated with the respective financing documents and the District's separate investment policy. For each debt issue, the CFO will evaluate whether a reserve fund is required for credit rating or marketing purposes and the benefits of funding or maintaining the reserve requirement with cash or a surety policy, in addition to determining the benefits of borrowing the necessary funds or using cash reserves.

## 2.3 District Credit Ratings

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The primary goal of the District's Financial Plan is to provide the financial foundation on which to build and operate its expanding system infrastructure. As described earlier, financial policies represent a tradeoff among various objectives. Prudent financial management means striking a balance among these objectives in a manner that provides for a sustainable enterprise with the ability to face the risks and capitalize on the opportunities before it.

Though high underlying credit ratings are not an end in-and-of themselves, they are one of the best measures of success in creating a financially sustainable enterprise. For several years, the District has worked with its professional advisers to develop a targeted credit rating for its long-term debt. Based on the District's alignment with the rating criteria of the various rating agencies and considering the effect on the District's cost of capital, the District targeted financial performance that would result in a credit rating of at least AA+/Aa1. The District believes its financial performance may support a rating of AAA.

As part of the application process for the WIFIA loan program, the District was required to get credit ratings from two national rating agencies. The District selected Standard & Poor's and Fitch Ratings for its ratings and achieved its minimum targeted rating from each agency.

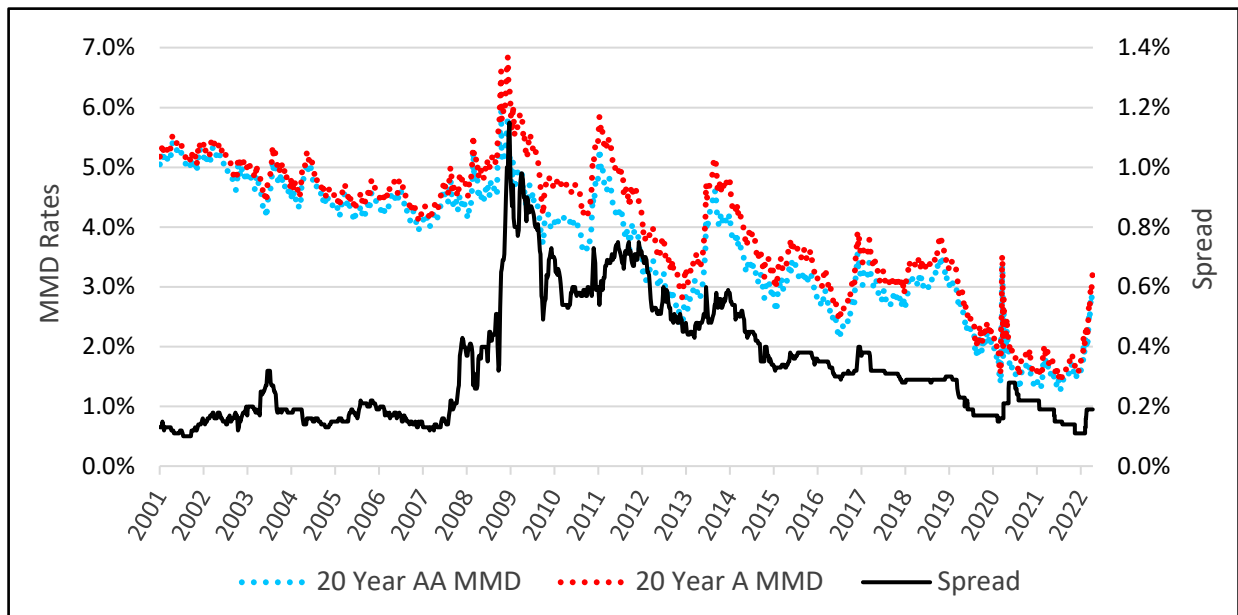
Table 2-1 (next page) provides a scale comparison for investment grade securities for three national rating agencies. The District's ratings are shaded.

Table 2-1: Rating Scales by Agency

| Standard & Poor's | Fitch Ratings | Moody's Investor's Service |
|-------------------|---------------|----------------------------|
| AAA               | AAA           | Aaa                        |
| AA+               | AA+           | Aa1                        |
| AA                | AA            | Aa2                        |
| AA-               | AA-           | Aa3                        |
| A+                | A+            | A1                         |
| A                 | A             | A2                         |
| A-                | A-            | A3                         |
| BBB+              | BBB+          | Baa1                       |
| BBB               | BBB           | Baa2                       |
| BBB-              | BBB-          | Baa3                       |

The direct financial value of a strong credit rating is a function of investor perceptions of risk. In terms of basis points savings on long-term debt, the graph below shows the value of 'AA'-rated credit vs. 'A'-rated credit since 2001.

Figure 2-1: Spread Between 'AA' versus 'A' Rated Debt\* – The Benefit of Staying 'AA' or Better



\* 20-year AA vs. A MMD Historical Rate Comparison (1/5/2001-4/14/2022); from PFM Financial Advisors LLC.

The graph makes clear that the value of a strong credit rating varies over time. Over the period presented, the value (i.e., “spread”) ranged from a low of 10 basis points to a high of 115 basis points, while averaging 28 basis points. To put this in perspective, an additional 28 basis points results in an additional \$5.5 million in interest on every \$100 million in outstanding debt (i.e., over 30 years).

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## 3 Water Sales Projections

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### 3.1 Water Sources

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One of the District's primary responsibilities is to meet the water demands of existing and future customers. No single water source is sufficiently robust to meet this challenge, and the District's Board has long recognized the need to balance water supplies among multiple sources. Currently, the District purchases most of its water through a wholesale contract with the City of Portland. The remainder of the water needed by the District's customers comes from the Joint Water Commission (JWC) and the District's aquifer storage and recovery (ASR) facilities.

#### 3.1.1 City of Portland Water Bureau

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TVWD purchases water from Portland under an existing regional water sales agreement. TVWD has no equity share in the Portland supply and, under the terms of the agreement, is required to pay for a minimum average of 13.16 MGD even if the District uses less. Under the agreement, this 13.16 MGD is referred to as the guaranteed purchase quantity (GPQ). If the District requires more water than the GPQ, the District will pay Portland for the additional costs. Water is billed at a pre-determined rate which includes a return on investment for Portland, with significant rate increases tied to high usage during summer months. The District's connections with Portland can provide up to 42.3 MGD through the WCSL,<sup>15</sup> however, there are significant incentives to manage the existing supply system to limit the financial impacts of the existing Portland water sales agreement.

#### 3.1.2 Joint Water Commission

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The JWC is a partnership of the District and the cities of Beaverton, Forest Grove, and Hillsboro. The JWC operates a treatment plant and related storage and transmission facilities. As a member of the JWC, the District owns capacity rights in the JWC's facilities. TVWD's capacity share of the JWC water treatment plant is 14.5 MGD, and the District owns rights to approximately 7,000 acre-feet of storage<sup>16</sup> at Barney Reservoir, one of the two primary impoundments that provide stored raw surface water supply to the JWC (the other is Hagg Lake). JWC members share actual operating and maintenance costs in proportion to their water usage and ownership shares.

JWC water is billed to the District at actual water production cost with no return on investment since TVWD provided the capital. In the summer months, purchased water costs from the JWC are significantly lower than the cost of Portland water. Therefore, the District maximizes its purchases from the JWC source while concurrently making the contractually required minimum purchases from Portland during the peak season.

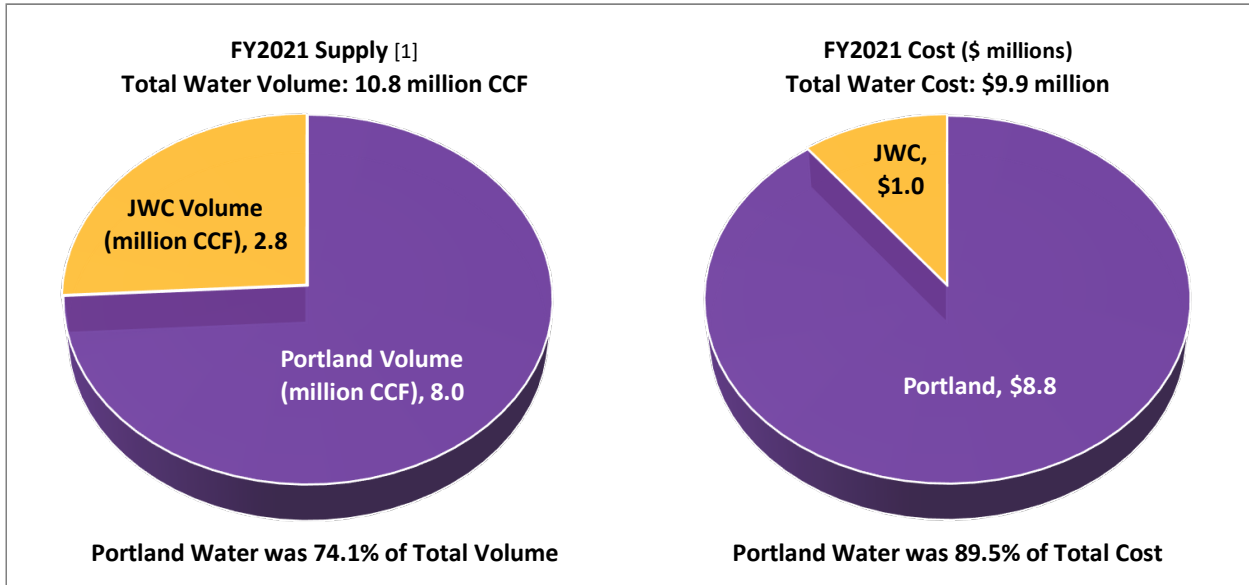
Figure 3-1 (next page) illustrates the comparative volume and costs of the District's supplies from Portland and the JWC.

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<sup>15</sup> The Washington County Supply Line, or WCSL, is a 60-inch gravity supply conduit that flows approximately 14 miles from Portland's Powell Butte Reservoirs to the District's eastern boundary.

<sup>16</sup> 7,000 acre-feet is equivalent to approximately 12.5 MGD over a 180-day peak-season period.

Figure 3-1: Comparison of Existing Supplies and Related Costs



[1] CCF = one hundred cubic feet or 748 gallons.

### 3.1.3 Grabhorn Aquifer Storage and Recovery

The District also uses its existing Grabhorn ASR well to supplement supply during peak-summer periods. The Grabhorn ASR facility can store up to 300 million gallons of water and was designed to deliver up to 3 MGD of supply over a 100-day period.

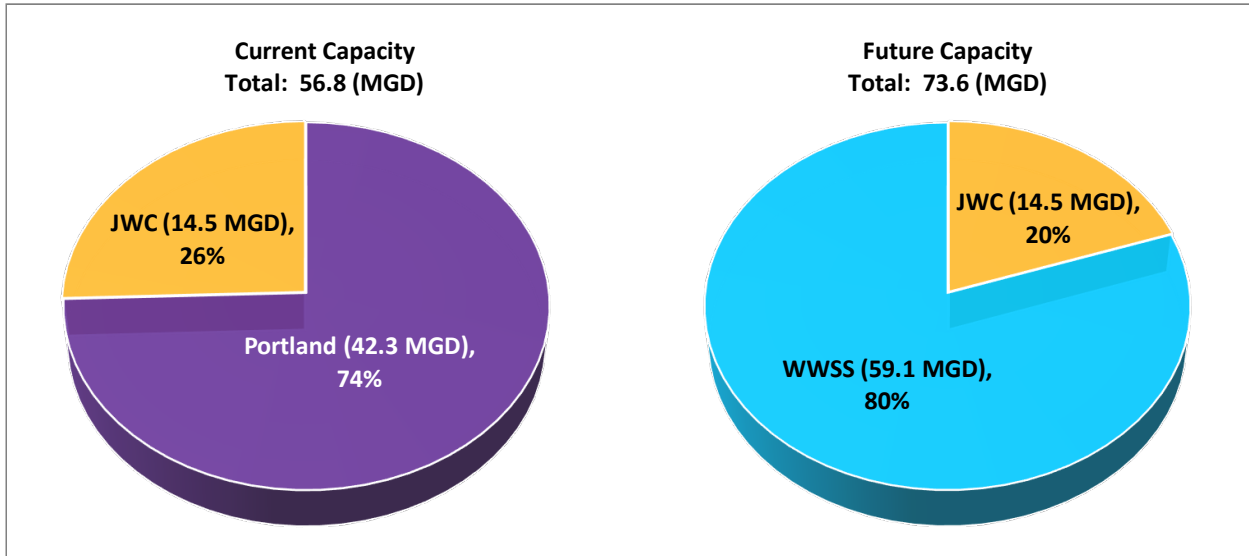
To reduce the higher costs of purchasing water for peak-summer use, the District forecasts its projected demand on a regular basis. This short-term demand forecasting helps the District meet the minimum purchase requirement of the Portland agreement while efficiently using the JWC and ASR sources to help meet higher demands during summer months.

### 3.1.4 Willamette Water Supply System

In 2013, the District’s Board decided to expand the District’s portfolio of water sources and develop a new water supply on the mid-Willamette River near Wilsonville. With the development of the Willamette Water Supply System (WWSS), the District plans to replace its Portland purchased water with this new source. The WWSS is scheduled to be available by July 1, 2026.

Figure 3-2 (next page) summarizes the District’s current source water capacities and its planned capacities beginning in FY2027.

Figure 3-2: Current v. Future Source Water Capacity



Developing the new water supply is considered an integral element of the District’s core mission. The planning, design, and construction of the WWSS is being done by the Willamette Water Supply Program (WWSP). Once complete, the WWSS will be a seismically hardened water supply system to meet the long-term needs of its residential, commercial, and industrial customers.

The WWSS is a regional effort which will result in long-term regional benefits. It is being implemented as a regional partnership, with TVWD serving as the Managing Agency for two new regional water entities with ownership interest in different parts of the total program:

1. Willamette Intake Facilities (WIF) Commission – The WIF is a joint venture of the District and the cities of Beaverton, Hillsboro, Sherwood, Tigard, and Wilsonville to jointly own and operate a raw water intake facility located at the current Willamette River Water Treatment Plant in Wilsonville, Oregon.
2. Willamette Water Supply System (WWSS) Commission – The WWSS is a joint venture of the District and the cities of Beaverton and Hillsboro to construct and operate supply facilities that convey raw water from the WIF, treat the raw water to potable standards, and convey the potable water to each partner’s distribution systems.<sup>17</sup>

### 3.2 Water Demand Forecast

In February 2018, the District and the City of Beaverton (Beaverton) entered into a service area agreement (Beaverton Service Area Agreement). This service area agreement provided a framework for the District and Beaverton to plan for serving customers within Beaverton’s corporate jurisdiction in places where it overlaps with the District’s boundaries. The agreement provided Beaverton an opportunity to withdraw a limited number of customers from the District, thereby making them Beaverton customers.

<sup>17</sup> The WWSP website (<http://www.ourreliablewater.org/>) provides additional information including activities-to-date, maps, and other related information for all WIF and WWSS projects.

The water demand forecast underlying this Financial Plan incorporates anticipated withdrawals of customers by Beaverton. Related reductions in the District's service accounts and associated water consumption are embedded in the projected source water purchases and rate revenue (fixed charges and water sales) included in the Forecast model.

At this time, the District is aware of limited additional areas from which Beaverton could withdraw customers in the future.<sup>18</sup> Regardless of the ultimate number of services that Beaverton withdraws, the probability is low that future withdrawal(s) would occur all at once. Rather, a series of withdrawals with subsequent transfer activities over multiple years may impact the District's finances in a gradual way.

Given the staggered timing of customer transfers to wheeling status and then separated status (i.e., served directly by Beaverton), the impact to the District's finances has been gradual. Should Beaverton pursue additional transfers in the future as the implementation of the agreement proceeds, the District will refine the projected revenue impacts in the Forecast.

Before factoring in assumed withdrawals by Beaverton, the assumed annual customer growth rate begins at 0.60% in FY2024 and then declines by 0.05% annually until it reaches zero in FY2036. These reductions in growth recognize the anticipation of slowing of development as the District approaches its build-out capacity. Expansions of the region's urban growth boundary on the northern edge of the District's current service area may increase these assumed growth rates for future years.

Prior to its last Financial Plan (May 2021), the District had seen fluctuations in its water demand. In the summer of 2019, consumption per capita declined 8% but then stabilized until the COVID-19 pandemic hit in 2020. The District saw further declines in the summer of 2020, likely due to the economic impacts of the pandemic. Since November 2020, it appears that water usage per customer has rebounded, especially in the District's single-family residential, irrigation, and production customer classes.

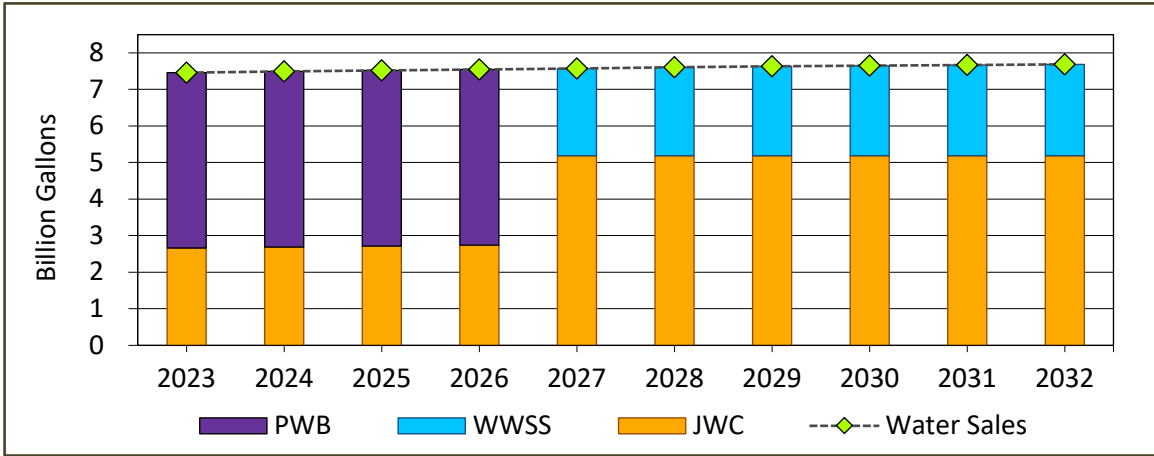
In its Forecast modeling, the District assumes that these past conservation savings and declines in system demands are permanent and forecasts sales growth at a lower rate than that of customer growth. This assumption is related to a combination of factors including the potential for mild weather, a successful conservation program that has depressed summer water demands, and the District's similar experience to the nation-wide trends towards higher density developments, smaller family sizes, and widespread assimilation of water-efficient appliances. The Forecast assumes an annual sales growth rate of approximately 0.4% through FY2028. After FY2028, the District assumes that sales growth will align with customer growth, ultimately becoming zero by FY2036.

On the following page, Figure 3-3 summarizes projected water demand and the assumed mix of supply sources used as the basis for purchased water costs in the Forecast model. Note that the impacts of the Beaverton withdrawals are already included in the FY2022 numbers. Additional future withdrawals by Beaverton would impact the projections shown below, and the District would necessarily adjust its assumptions and Financial Plan.

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<sup>18</sup> Section 3.7 of the Beaverton Service Area Agreement defines the obligations of Beaverton to assume a proportionate share of the District's the outstanding debt for all withdrawals effective after July 2, 2020.

Figure 3-3: Balancing Water Supplies and Demand by Fiscal Year





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## 4 Capital Improvement Plan

Each biennium the District updates its capital improvement plan, which includes expenditures for the Willamette Water Supply Program, Joint Water Commission, and in-District projects.

- The WWSP was established to develop and deliver the Willamette Intake Facilities (WIF), Willamette Water Supply System (WWSS), and Metzger Pipeline East (MPE) to the District and its partners by July 2026.
- As discussed in Section 3.1.2, the District is a partner in the JWC along with the cities of Beaverton, Forest Grove, and Hillsboro. As a member of the JWC, the District also participates in the development of its capital budget.
- For in-District projects, status updates on current projects and new project requests are prepared by the Engineering & Operations Department.

Table 4-1 presents the forecast CIP expenditures through FY2032. The District's share of projected WWSP (including WIF & WWSS projects) and JWC capital costs are summarized in the top two rows of the table. The categories listed below JWC are all in-District capital expenditures.

Table 4-1: Forecast CIP Expenditures by Category and Fiscal Year (\$ Millions)

| Category            | 2023           | 2024           | 2025           | 2026          | 2027          | 2028          | 2029          | 2030          | 2031          | 2032          | Totals          |
|---------------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------|
| WWSP/WWSS           | \$209.2        | \$245.5        | \$120.3        | \$36.3        | \$3.8         | \$2.2         | \$1.7         | \$15.8        | \$15.6        | \$1.1         | <b>\$651.5</b>  |
| JWC                 | 0.1            | 0.3            | 0.7            | 0.6           | 1.0           | 1.0           | 1.1           | 1.1           | 1.1           | 1.4           | <b>8.5</b>      |
| TVWD Source         | 5.5            | 0.5            | 0.2            | 1.5           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | 0.0           | <b>7.7</b>      |
| Storage             | 6.2            | 8.0            | 0.5            | 0.0           | 1.6           | 2.6           | 0.1           | 0.1           | 0.1           | 3.4           | <b>22.6</b>     |
| Pumping             | 1.9            | 5.3            | 5.6            | 0.2           | 1.6           | 2.4           | 0.2           | 0.2           | 0.2           | 1.2           | <b>18.9</b>     |
| Pipelines*          | 75.4           | 46.9           | 21.3           | 11.3          | 12.7          | 13.9          | 19.7          | 21.3          | 17.7          | 32.6          | <b>272.9</b>    |
| PRVs/Vaults         | 1.9            | 0.7            | 0.3            | 0.4           | 0.5           | 0.4           | 0.6           | 0.4           | 0.4           | 0.4           | <b>6.0</b>      |
| Facilities/Fleet/IT | 1.7            | 0.7            | 0.8            | 0.8           | 1.2           | 2.9           | 1.3           | 1.3           | 1.4           | 1.4           | <b>13.4</b>     |
| Meters/Svcs         | 1.9            | 1.9            | 2.0            | 2.1           | 2.1           | 2.2           | 2.3           | 2.4           | 2.5           | 2.6           | <b>21.9</b>     |
| Other               | 0.9            | 2.4            | 2.0            | 4.3           | 4.5           | 6.9           | 7.2           | 16.5          | 11.7          | 12.1          | <b>68.5</b>     |
| <b>Totals</b>       | <b>\$304.8</b> | <b>\$312.2</b> | <b>\$153.7</b> | <b>\$57.6</b> | <b>\$29.1</b> | <b>\$34.5</b> | <b>\$34.2</b> | <b>\$59.1</b> | <b>\$50.7</b> | <b>\$56.3</b> | <b>\$1092.0</b> |

### Summary

|              |         |         |         |        |       |       |       |        |        |       |                |
|--------------|---------|---------|---------|--------|-------|-------|-------|--------|--------|-------|----------------|
| WWSP/WWSS    | \$209.2 | \$245.5 | \$120.3 | \$36.3 | \$3.8 | \$2.2 | \$1.7 | \$15.8 | \$15.6 | \$1.1 | <b>\$651.5</b> |
| JWC          | 0.1     | 0.3     | 0.7     | 0.6    | 1.0   | 1.0   | 1.1   | 1.1    | 1.1    | 1.4   | <b>8.5</b>     |
| In-District* | 95.5    | 66.5    | 32.7    | 20.6   | 24.3  | 31.3  | 31.4  | 42.1   | 34.0   | 53.8  | <b>432.0</b>   |

\*Includes MPE (prelim. estimates: \$108.1 million in FY2023-27, \$157.5 million total), being delivered by the WWSP.

- The largest element of the District's ten-year CIP is the WWSP/WWSS at approximately \$651.5 million. This number represents the District's share of all remaining WWSP project expenditures, including the costs of the raw water facilities, water treatment plant, finished water pipelines, and terminal reservoirs. The District and its partners plan to end the WWSP in FY2026, with several million in program close-out costs projected for FY2027. There are, however, additional WWSS-related project costs in future years.

The timing of these future projects costs is based on efforts by the District and its partners to lessen the near-term financial pressure on customers by pushing some elements of WWSP

projects into future years. These elements include a planned expansion of the water treatment plant, a second 15 MG storage tank at the terminal reservoir site, the northernmost finished water pipeline, and an optional element of the WWSS control system.

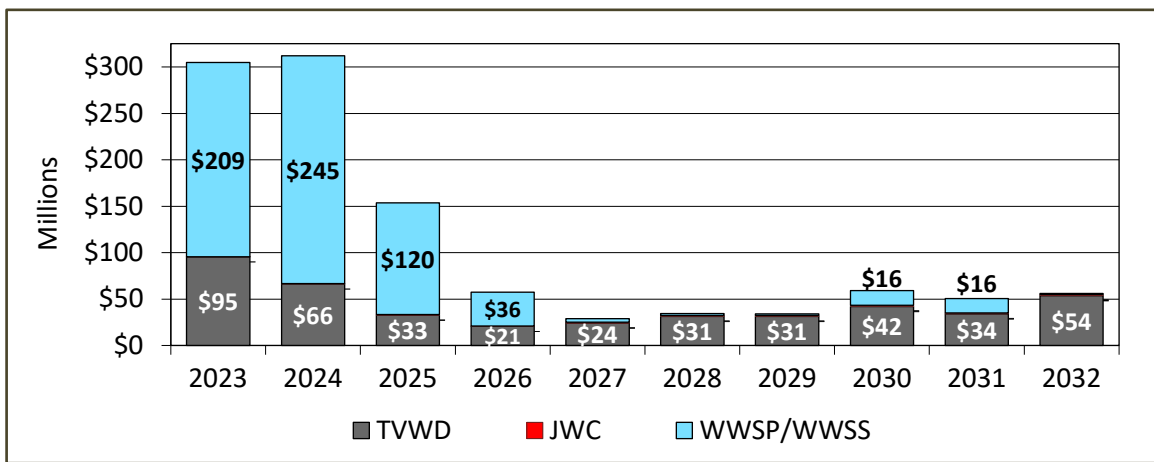
- Pipelines will be the next costliest category of ten-year and future CIP expenditures. Included in the \$272.9 million shown above is the District’s Mains Replacement Program (\$95.6 million) and Metzger Pipeline East (\$108.1 million, preliminary estimate), which will deliver WWSS water to both the District’s Metzger and Wolf Creek service areas.
- A reservoir replacement and several other reservoir improvements are included in the \$22.6 million for Storage.
- Similarly, at nearly \$18.9 million for Pumping, the District is planning several major expansions and improvements to existing pump stations over the next ten years.

Figure 4-1 below presents a graphical summary of the projected annual CIP expenditures for the next ten years. As shown in Table 4-1 above, the costs underlying the graph total nearly \$1.1 billion over the 10-year presentation period. This total represents the costs of the in-District CIP and the District’s cost shares of JWC and WWSP/WWSS capital expenditures. These projected expenditures form the capital funding needs of the District during the Financial Plan period.

Funding needs will decline after completion of the WWSP. However, in FY2027 and beyond, the District is projecting additional WWSS-related projects, increased spending in its Mains Replacement Program, and in additional future improvements and replacements of storage and pump station facilities.

In Figure 4-1, note that only the in-District and WWSP costs are labeled. The JWC amounts are not labeled because they are relatively small, and the labels would crowd the larger in-District and WWSP amounts shown.

Figure 4-1: Projected Annual CIP Expenditures by Fiscal Year



## 5 Capital Financing Plan

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The capital financing plan for the District's projected capital expenditures is one of the primary drivers for this Financial Plan. The capital financing plan considers the District's financial objectives and the mix of current and future funds available for capital investment to determine the optimal funding sources for the projected CIP expenditures. The optimal funding mix will be achieved by balancing the use of cash funding and debt proceeds to fund the CIP while minimizing increases to customers' rates.

This section provides an overview of the debt instruments the District anticipates using to finance its projected CIP, the methodology used to optimize the CIP financing mix, and the fundamental assumptions underlying the projected debt service schedules for new debt.

### 5.1 Borrowing Options

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Certain rules and regulations make clear the types and limits of debt financing available to the District. Some rules exist on the national level, while others are specified by Oregon law. The District complies with the debt limitations imposed by the Oregon Constitution, Oregon Revised Statutes (ORS), and Oregon Administrative Rules (OAR). The District will further comply with Security and Exchange Commission (SEC) and Municipal Securities Rulemaking Board (MSRB) rules regarding debt issuance, and with IRS regulations for tax-exempt or tax-advantaged debt.

The following describes the specific debt instruments that the District has selected for its capital financing plan.

#### 5.1.1 Types and Use of Long-Term Debt

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**REVENUE BONDS.** Revenue bonds are obligations payable from the net revenues of the District's operations. As users of the District facilities will benefit from long-term capital investments in future years, it is appropriate that future revenues pay a share of the costs and more closely match the term of repayment to the expected economic useful life of the project being financed.

Long-term revenue bonds issued by the District will only be used to finance new and refurbished capital facilities, projects, and certain equipment where it is determined to be cost effective and fiscally prudent. Revenue bonds will be structured to achieve the lowest possible net cost to the District considering market conditions, terms that are advantageous to the District, risks, the Financial Plan, and the nature and type of security to be provided.

Although revenue bonds are not subject to constitutional or statutory debt limits, the District's debt will not exceed legal or contractual limitations, such as rate covenants or additional bonds tests imposed by then-existing financing covenants. Prior to the issuance of any new revenue bonds, the CFO will cause the impact of future debt service payments on total annual fixed costs to be analyzed.

**WIFIA.** The Water Infrastructure Finance and Innovation Act (WIFIA) program is a federal loan and guarantee program, administered by the U.S. EPA, that aims to accelerate investment in the nation's water infrastructure by providing credit assistance for regionally and nationally significant projects. The District closed its original WIFIA loan agreement on August 2, 2019. The original loan, which would fund up to 49% of the District's share of WIFIA-eligible project costs, included an interest rate of 2.39% that would free up the District's financial resources for other purposes and lower the overall levels of annual

revenues required from rates and charges. The District and the EPA estimated that the initial WIFIA loan would save the District's customers approximately \$138.4 million.

After the District closed its original WIFIA loan agreement in August 2019, the District made two significant requests of the EPA:

1. In the spring of 2020, the District requested the EPA amend the District's draw schedule under its existing WIFIA loan. This requested amendment better aligned the District's WIFIA draws with its new projected cash flow requirements. The EPA approved the revised draw schedule, allowing the District to make more of its total WIFIA funding (i.e., \$387.75 million) available earlier in the WWSP's life cycle.
2. Following the close of the District's original WIFIA loan agreement in August 2019, market conditions changed and interest rates declined. To achieve interest rate savings, the District requested that its WIFIA loan be re-executed. The EPA allowed this re-execution, and the District closed its re-executed WIFIA loan on September 15, 2020 at a lower interest rate of 1.35%.

Under its new WIFIA loan terms (i.e., revised draw schedule and lower interest rate), the District and the EPA estimated additional savings of approximately \$122 million for the District's customers.

The District's WIFIA loan is technically considered a revenue bond under Oregon Law and the District's Master Declaration. The District has not yet drawn on its WIFIA loan. However, the District plans to draw \$100 million of its WIFIA funding in June 2022 to reimburse itself for WWSP project costs to date. The District also plans to use this cash to expand its investment portfolio and take advantage of favorable short-term yields in the current market. The interest earnings from these investments may then be used to offset part of the higher cost revenue bonds that will be needed to complete the WWSS.

WIFIA is a highly valuable addition to the District's portfolio of future debt because it locked in a low interest rate for the length of the program, provides favorable loan terms, and allows for customized disbursement and repayment schedules.

*FEDERAL, STATE, OR OTHER LOAN PROGRAMS.* To the extent it benefits the District, the District may participate in federal, state, or other loan programs. The CFO routinely evaluates the requirements of these programs to determine if the District is well served by employing them. For planning purposes and in the event the District employs a federal, state, or other loan program, the District will treat and report these obligations in a manner consistent with other similar debt instruments. To the extent required by the loans or other outstanding debt agreements, the District will include the financial requirements of these obligations when determining additional bonds test, coverage requirements, etc.

### 5.1.2 Authority to Issue Debt

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The District has authority under state law to enter into financial obligations for the borrowing options described above. Below are descriptions of the actions the District has taken to obtain the authority to issue debt.

*ORDINANCE.* At its April 17, 2019 regular meeting, the Board of Commissioners adopted Ordinance 01-19 (Ordinance) authorizing the issuance of debt. The Ordinance authorizes \$600 million in net bond proceeds to fund capital expenditures, identifies an additional \$80 million to fund debt service reserves and issuance costs, authorizes the District's participation in the WIFIA loan program as well as additional revenue bond issuances, and identifies the types of capital expenditures that may be funded by the

borrowings.<sup>19</sup> The Ordinance also delegates to the District’s CFO, Chief Executive Officer (CEO), or other designated employees of the District to issue the revenue bonds authorized by the Ordinance.<sup>20</sup>

*MASTER DECLARATION.* On August 2, 2019, the District executed its master revenue bond declaration (Master Declaration). The Master Declaration establishes the terms under which the District’s long-term borrowings are incurred and the terms under which future obligations may be issued on a parity. On September 15, 2020, the Master Declaration was supplemented as part of the WIFIA loan re-execution. Under certain future circumstances, the Master Declaration may be supplemented or amended further by Supplemental Declaration.<sup>21,22</sup>

### 5.1.3 Other Debt Considerations

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*DEBT REFINANCING.* Refunding obligations may be issued to retire all or a portion of an outstanding debt issue. Economic refundings may refinance high-coupon debt at lower interest rates to realize debt service savings. Alternatively, the District may conduct a refunding for reasons other than cost savings, such as to restructure debt service payments, to change the type of debt instruments, to release restricted revenues, to ease administrative requirements, or to remove undesirable covenants.

*REIMBURSEMENT DECLARATION.* The District’s Board of Commissioners authorized the District’s Chief Executive Officer to declare official intent on behalf of the District to reimburse the District’s cash reserves for capital expenditures with the proceeds from tax-advantaged obligations. This authorization was approved by Resolution No. 08-13, adopted on June 19, 2013. In addition to this reimbursement declaration, the District’s Board further declared its intent as part of the Ordinance.

## 5.2 Optimizing the Capital Financing Mix

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The District’s CIP funding sources include accumulated reserves (fund balances), future revenues allocated towards capital expenditures (cash financing, also known as “pay-as-you-go”), and debt financing which will lead to debt service repayments (sometimes referred to as “pay-as-you-use” financing). All of these funding sources must be integrated into the capital financing plan.

Optimizing the capital financing plan is a complex and iterative process that involves several key steps. These steps are:

1. Determine the CIP funding mix of cash and debt financing for each Forecast year.
2. Determine the types and estimate the amounts of debt financing that will be used.
3. Calculate amortization schedules for the forecasted debt issuances.

The steps and process are discussed in greater detail in the following subsections.

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<sup>19</sup> The authorized capital expenditures include all system improvements of the District, including investments in the District’s joint ventures such as the Willamette Water Supply System.

<sup>20</sup> A signed copy of the Ordinance is included as *Appendix B – Ordinance 01-19 – Authorizing the Issuance of Debt*.

<sup>21</sup> The District’s Master Declaration and First Supplement are included as *Appendix C – Master Revenue Bond Declaration* and *Appendix D – First Supplement to Master Revenue Bond Declaration*, respectively.

<sup>22</sup> The District’s signed Parity Certificate and related transcript documents are included as *Appendix E – Parity Certificate and Transcript Documents*.

## 5.2.1 Target Cash and Debt Financing Profile

Like any business, the District must determine the best mix of resources (cash and debt financing) to fund both its operations and its capital program. The cash/debt profile aims to maintain some cash investment into both existing facilities (renewal and replacement) and new system assets, while minimizing impacts on customers and achieving intergenerational equity among customers.

Figure 5-1 illustrates the mix of cash and debt planned to finance the CIP over the 10-year presentation period. Note that the ratio of cash-to-debt is projected to vary each year. Ultimately, the mix will vary from the projections shown, depending on actual water sales revenue, future market conditions and input from the District’s financial consultants.

Figure 5-1: CIP Funding Sources by Fiscal Year

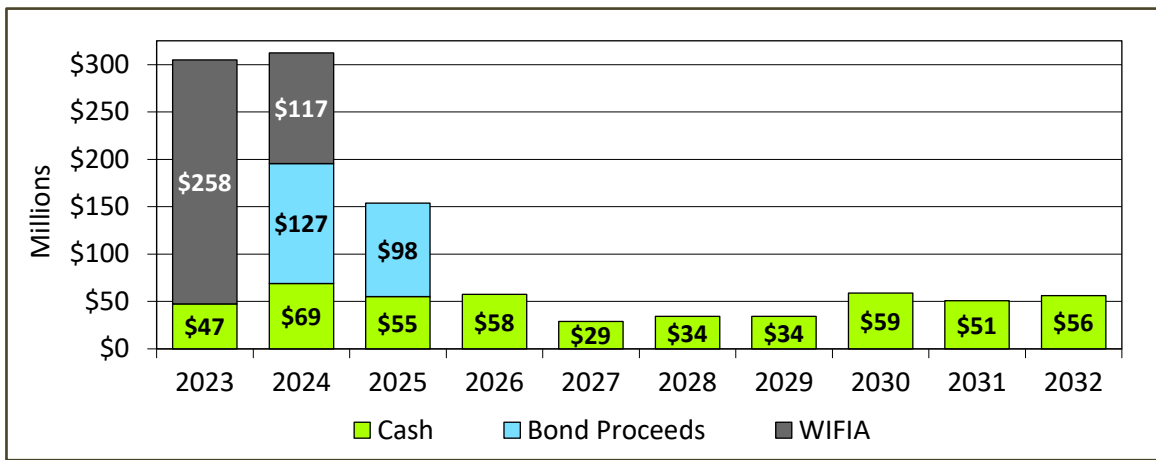
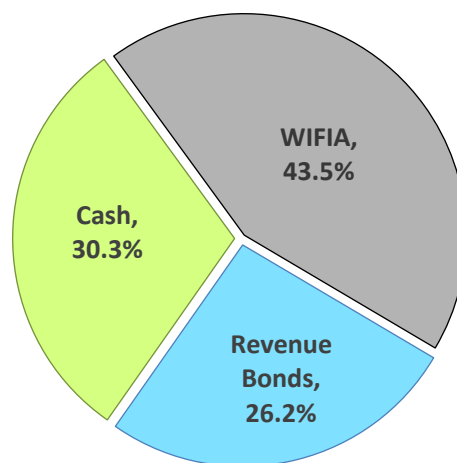


Figure 5-2 illustrates the proportional amounts of CIP funding through the end of FY2027.

Figure 5-2: Five-Year CIP Funding Ratios by Source (Cash and Debt, FY2023-FY2027)



## 5.2.2 Debt Structure and Principal Amortization

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Ultimately, the structuring of the District’s future debt obligations and repayments will depend on market factors and input from professional advisers (municipal advisers, underwriters, etc.) at the time of each issuance. For the purposes of the Forecast model and this Financial Plan, the District used what it considers to be standard, and slightly conservative, assumptions to calculate future debt service requirements. These assumptions are outlined in Section 5.3 below.

## 5.3 Significant Debt Program Assumptions

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As mentioned in the *Introduction* (Section 1), the District will fund a significant portion of its WWSS expenditures with financing from the Water Infrastructure Finance and Innovation Act (WIFIA), with traditional revenue bonds augmenting the remaining WWSS costs and providing outside funding at times when future debt financing will be required.

### 5.3.1 WIFIA Debt Assumptions

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**TERM.** The total WIFIA loan amount will be repaid in 34 years, beginning after “substantial completion” of the project (i.e., the WWSS). As specified in the re-executed loan agreement, WIFIA repayments will begin in FY2028 and end in FY2061.

**INTEREST RATE.** The re-executed loan agreement allowed the District to reset its WIFIA interest rate from 2.39% to 1.35%. This new, lower rate is incorporated into related WIFIA financing and capitalized interest calculations in the Forecast.

**CAPITALIZED INTEREST.** Using the 1.35% WIFIA interest rate and guidance from the WIFIA program, the District calculates compounding interest on each of its projected WIFIA draws from the year each draw is taken to FY2028 (when the total WIFIA loan is sized), at which point the total accumulated amounts would be rolled into the total WIFIA debt outstanding. Table 5-1 presents a summary of the capitalized interest calculation and resulting WIFIA loan amount to be amortized.

Table 5-1: WIFIA Capitalized Interest and Total Financing (\$ Millions)

|               | WIFIA<br>Proceeds | Total<br>Cap-i | Total<br>Financed |
|---------------|-------------------|----------------|-------------------|
| FY2022 [1]    | \$100.0           | \$7.8          | \$107.8           |
| FY2023        | 257.5             | 18.5           | 276.0             |
| FY2024        | 30.2              | 1.9            | 32.1              |
| <b>Totals</b> | <b>\$387.7</b>    | <b>\$28.2</b>  | <b>\$416.0</b>    |

[1] Initial draw on WIFIA funds planned for June 2022.

**PRINCIPAL AMORTIZATION.** Per the repayment schedule included in the WIFIA loan agreement, the principal amount of approximately \$416 million was amortized over 34 years using levelized annual debt service.

**DEBT SERVICE RESERVE.** The WIFIA loan agreement does not include a debt reserve requirement.

**ISSUANCE COSTS.** The issuance costs for the District’s WIFIA loan were incurred in prior years.



### 5.3.2 Revenue Bond Debt Assumptions

**TERM.** The District assumes all revenue bonds will be issued with a 30-year term.

**INTEREST RATE.** The assumed interest rate is 5.5% for revenue bonds issuances.

**ISSUANCE COSTS.** Revenue bond issuance costs are estimated at 0.75% of the par amount for each issuance through FY2025. For revenue bonds needed in future years, the Forecast assumes that issuance costs would increase to 1.50% of the par amount for each issuance, with the costs included in the total issuance amount. Issuance costs as a percentage of the par amounts are assumed to increase for future borrowings in recognition of the smaller sizes of future issues.

**PRINCIPAL AMORTIZATION.** For planning purposes, revenue bonds were amortized over 30 years using levelized annual debt service. For projected revenue bond issuances in FY2024 and FY2025, the District assumed that amortization would be structured with provision for interest-only payments until FY2028. This assumption was incorporated into the 2021-23 Financial Plan (May 2021) with input from the District’s municipal adviser.

**DEBT SERVICE RESERVE.** Revenue bond reserve requirements were calculated based on the maximum annual debt service (MADS) of each issuance.

### 5.4 Schedule of Future Debt Issuance

Projected debt issuances are presented in Table 5-2 below. For WIFIA and each revenue bond issuance, Table 5-2 includes the proceeds available for capital expenditures, estimated issuance costs, capitalized interest (WIFIA loan only), reserve requirements (revenue bonds only), and total issue amounts during the 10-year and 30-year projection periods.

Table 5-2: Projected WIFIA Funding and Revenue Bond Issuances (\$ Millions)

|                                 | Proceeds<br>for CIP | Issuance<br>Costs [1] | Reserve Req.<br>[2] | Capitalized<br>Interest | Total<br>Financed |
|---------------------------------|---------------------|-----------------------|---------------------|-------------------------|-------------------|
| <b>Projected Debt Issuances</b> |                     |                       |                     |                         |                   |
| WIFIA                           | \$387.7             | \$0.0                 | \$0.0               | \$28.2                  | <b>\$416.0</b>    |
| FY2024 Revenue Bonds            | 126.6               | 1.0                   | 9.9                 | 0.0                     | <b>137.5</b>      |
| FY2025 Revenue Bonds            | 98.4                | 0.8                   | 7.6                 | 0.0                     | <b>106.8</b>      |
| <b>Totals</b>                   | <b>\$612.7</b>      | <b>\$1.8</b>          | <b>\$17.5</b>       | <b>\$28.2</b>           | <b>\$660.3</b>    |

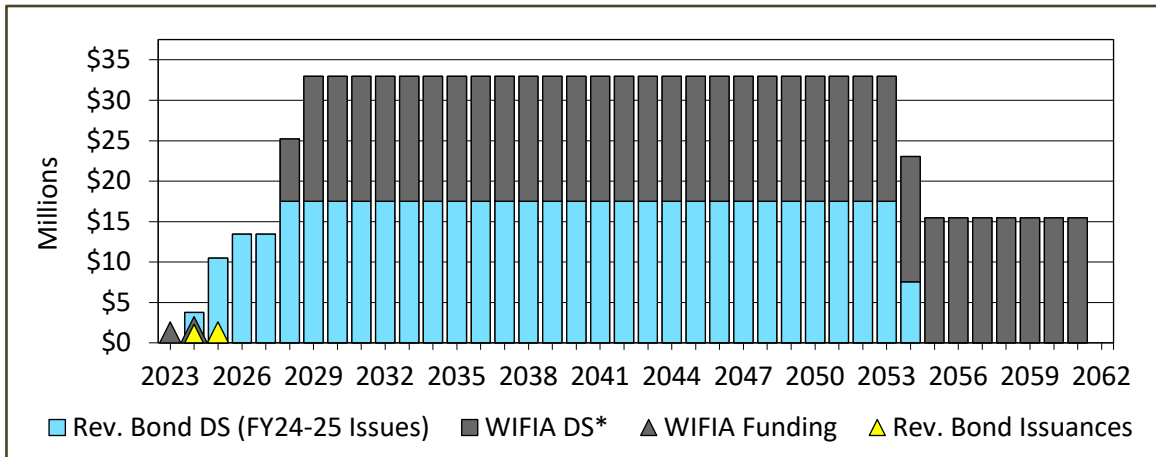
[1] Revenue bond issuance costs assumed at 0.75% of the total amounts financed per year.

[2] Revenue bond reserve requirement assumed at maximum annual debt service (MADS) per issuance.

It should be noted that Table 5-2 is not intended as an outline or planned schedule for future revenue bond issuances, as the District will not likely issue revenue bonds annually over 2- and 3-year periods. Rather, the schedule above is meant to demonstrate the approximate size and timing of needed debt financing. In future years when debt funding is needed, the District may execute a single bond issuance to fund capital needs for multiple successive years. Conversely, short-term debt instruments may be employed to cover interim capital costs in one or more periods, with revenue bonds then issued to close-out the interim financing and provide additional funding for then-current and/or future capital expenditures.

Figure 5-3 shows the resulting debt service based on the projected borrowings in Table 5-2 above and the debt service assumptions described in Section 5.3.

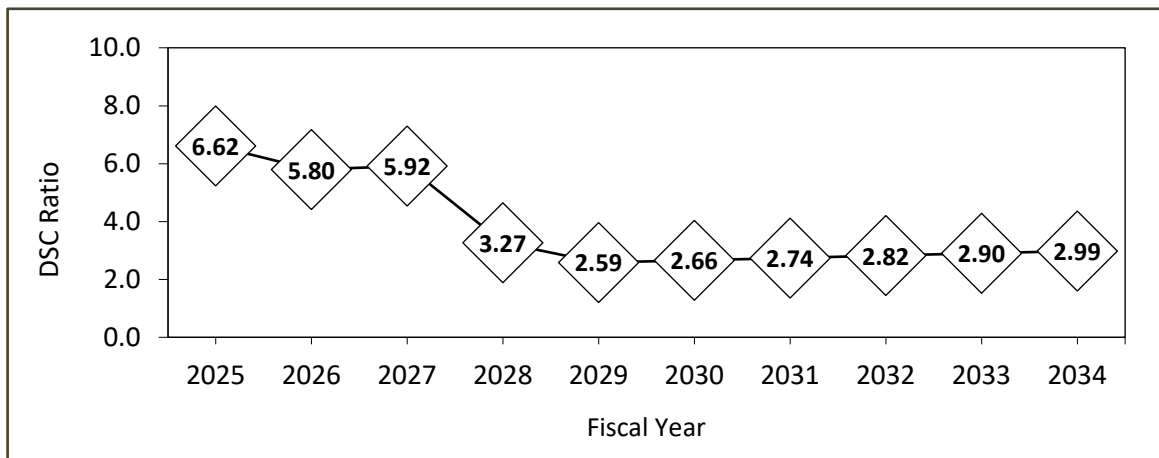
Figure 5-3: Projected Annual Debt Service by Fiscal Year



\* WIFIA debt repayments based on program funding plus capitalized interest in FY2023 through FY2027.

As presented in Figure 5-4, the District expects to meet or exceed its target minimum debt service coverage ratio of 2.0 times total annual debt service (WIFIA and revenue bonds).

Figure 5-4: Projected Debt Service Coverage

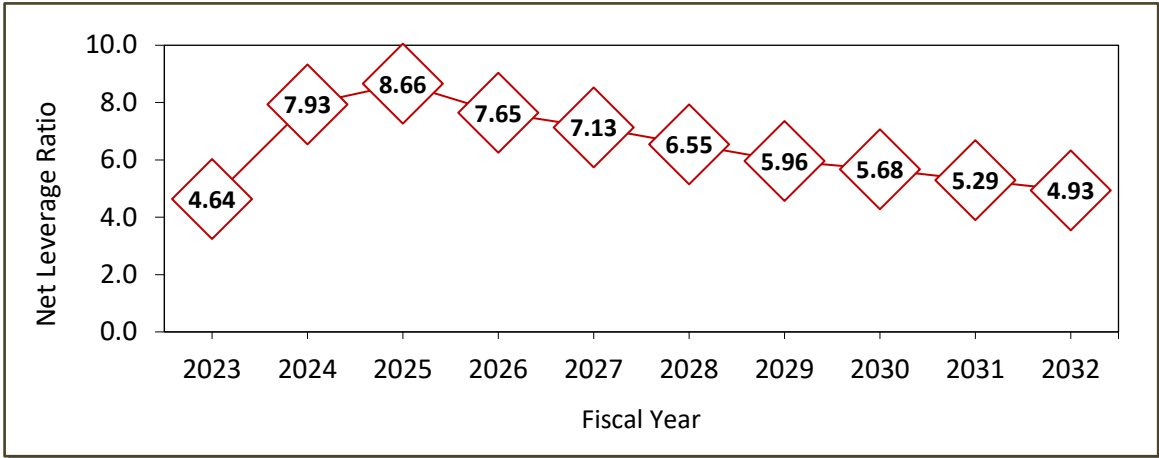


Note that Figure 5-4 presents ten years of results beginning with FY2025 instead of FY2023. This is to show projected DSC for a period after which the bulk of the District’s near-term debt service requirements will be in place.

As shown in Figure 5-5 (next page), the District estimates that its net leverage ratio will peak above its target maximum of 8.0x in FY2025. This coincides with the conclusion of the District’s planned debt financing for the WWSS. Beginning in FY2026, the District’s net leverage ratio will fall to less than the target maximum and continue to decline annually in future years.<sup>23</sup>

<sup>23</sup> For background information on the Net Leverage ratio, see Section 2.2.1.1 in this report.

Figure 5-5: Projected Net Leverage Ratio



## 6 Financial Forecast

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This section provides a brief description of the District's rates and charges, forecast financial projections, and a summary of the District's projected sources and uses of funds over the presentation period. The forecast represents the District's current projections, which are based on current data and assumptions. It is important to note that these projections are subject to change and should be viewed as estimates.

### 6.1 District Rates and Charges

---

The District collects revenues from a variety of sources. Some sources are fixed (i.e., not dependent on water sales or the economy), while others are variable being based on the amount of water sold or the local/regional economy (e.g., system development charges). Brief descriptions for each of the District's rates and charges categories are provided below.

*FIXED CHARGE.* Water rates include two types of charges: fixed and volumetric. The *fixed charge* is assessed to customers monthly or bimonthly and varies by meter size.

*VOLUMETRIC WATER RATE.* The *volumetric rate* is based on the amount of water consumed. TVWD assesses this rate to each unit of water sold (i.e., \$/CCF).

*OTHER RATES AND CHARGES (NON-RATE REVENUE).* For planning purposes, *non-rate revenue* includes meter and service revenue, dispatch fees, backflow program reimbursements, contract reimbursements, miscellaneous income, and some other small dollar items.

*SYSTEM DEVELOPMENT CHARGES.* Sometimes referred to as improvement fees, impact fees, capacity reserve charges, or infrastructure investment fees, SDCs are contributions of capital that reimburse existing customers for the available capacity in the existing system and help finance growth-related capacity improvements.

### 6.2 Projected Rates and Charges

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The District developed its financial projections based on its financial objectives and policies (presented in Section 2), water sales projections (Section 3), and projections of future revenue requirements which are based on the following:

- CIP (Section 4)
- Capital financing plans (Section 5)
- Operating cost forecast – discussed later in this section (Section 6)

Using all these inputs and assumptions, District staff uses its Forecast model to determine the level of rate revenue needed to meet the District's requirements in each year of the model's forecast period.

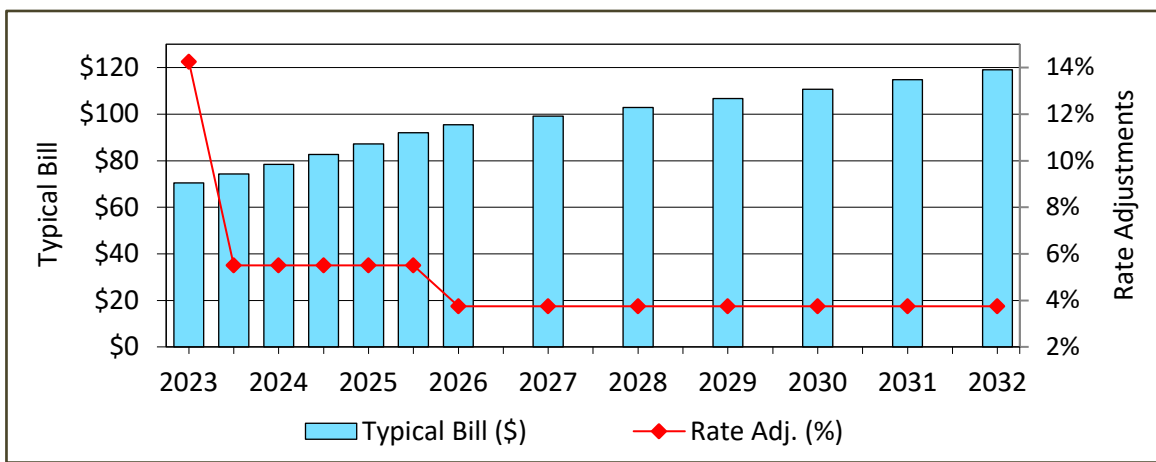
Historically, the District adopted new water rates annually after conducting a public rate process each summer. Beginning with the 2017-2019 biennial budget period, the District began adopting rates for two years at a time following a public rate process conducted in the first few months of each biennial budget period. This shift to *multi-year* rate adoption was based on recommendations received from the District's Rate Advisory Committee in 2016-17.

Based on recent considerations by the Board and direction given to staff at its April 20, 2022 regular monthly meeting, this Financial Plan presents a new strategy for meeting the District’s revenue requirements over the next several years. This strategy includes adjusting the previously adopted rates that were scheduled to become effective on November 1, 2022 and then adopting new rates every six months until shifting back to annual rate adjustments beginning in November 2025 (FY2026).

Figure 6-1 presents the Forecast customer impacts over the presentation period, including typical monthly bills and projected rate revenue adjustments. For the first three years (FY2023-FY2025) of the presentation period, the graph presents two rate adjustments per year:

- 14.25% in November 2022 (FY2023)
- 5.50% every 6 months from May 2023 (FY2023) to May 2025 (FY2025)
- 3.75% annually thereafter, beginning in November 2025 (FY2026)

Figure 6-1: Projected Rate Adjustments and Typical Bills by Fiscal Year



### 6.3 Projected Sources of Funds

Figure 6-2 presents a summary of the District’s projected sources of funds over the presentation period. On the next page, Table 6-1 presents the same information in tabular format.

Figure 6-2: Projected Sources of Funds by Fiscal Year

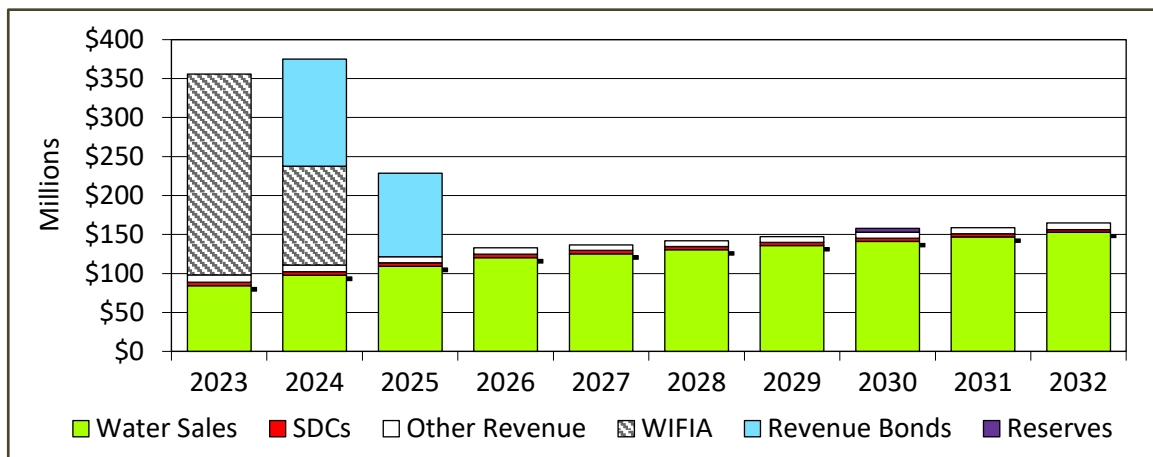


Table 6-1: Revenues and Other Funding Sources by Fiscal Year (\$ Millions)

|               | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032           | Totals          |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| Water Sales   | \$84.5         | \$97.8         | \$109.2        | \$120.3        | \$125.3        | \$130.5        | \$135.8        | \$141.4        | \$147.0        | \$152.8        | <b>\$1244.6</b> |
| SDCs          | 4.6            | 4.6            | 4.6            | 4.6            | 4.4            | 4.3            | 4.1            | 3.9            | 3.8            | 3.6            | <b>42.3</b>     |
| Other Revenue | 9.3            | 8.6            | 7.9            | 8.1            | 6.8            | 7.1            | 7.5            | 7.8            | 8.0            | 8.3            | <b>79.4</b>     |
| WIFIA [1]     | 257.5          | 126.5          | -              | -              | -              | -              | -              | -              | -              | -              | <b>384.0</b>    |
| Revenue Bonds | -              | 137.5          | 106.8          | -              | -              | -              | -              | -              | -              | -              | <b>244.3</b>    |
| Reserves      | -              | -              | -              | -              | -              | -              | -              | 4.9            | -              | -              | <b>4.9</b>      |
| <b>Totals</b> | <b>\$355.8</b> | <b>\$375.0</b> | <b>\$228.4</b> | <b>\$132.9</b> | <b>\$136.5</b> | <b>\$141.9</b> | <b>\$147.5</b> | <b>\$158.0</b> | <b>\$158.8</b> | <b>\$164.7</b> | <b>\$1999.5</b> |

[1] Approximately 75% of the WIFIA funding shown in FY2024 is from the District’s initial draw of \$100 million (planned for June 2022). The District intends to invest those funds until FY2024 (when needed for capital expenditures) and earn interest at today’s relatively higher rates. The additional interest earnings will be used to offset higher-cost revenue bond financing in the next biennium.

Each category listed above in Table 6-1 is described below. Note that some categories are described in multiple parts. For example, Other Revenue in Table 6-1 includes the following five items, each described separately below: *Non-Rate Revenue*, *Payments from Partners – Capitalized Overhead*, *Payments from Partners – Joint Venture Operations*, *Wheeling Revenue*, and *Interest Income*.

**RATE REVENUE (WATER SALES).** Water rate revenue projections include revenue from both fixed and volumetric charges, as discussed in *Section 6.1 – District Rates and Charges*. Over the presentation period, increasing rate revenue is due to the projected rate revenue adjustments shown in Figure 6-1 and minor annual increases in customers and water sales following recent net losses due to withdrawals by the City of Beaverton, which were discussed in *Section 3.2 – Water Demand Forecast*.

**SYSTEM DEVELOPMENT CHARGES (SDCs).** In FY2023, the District projects that it will receive approximately \$4.6 million from water SDCs. For the first 4 years of the forecast, the District assumed that SDC collections will remain steady at approximately \$4.6 million annually, then decline slowly over time in the future. These assumptions are important as the overreliance on growth-related fees for rate setting purposes may result in the need for additional rate adjustments to fund capital improvements should growth not occur at the projected levels.

**NON-RATE REVENUE (OTHER REVENUE).** As mentioned in Section 6.1 above, non-rate revenue includes meter and service revenue, dispatch fees, backflow program reimbursements, contract reimbursements, miscellaneous income, and some other small dollar items. Based on the District’s FY2023 budget for these items plus actual data from FY2021 and FY2022, the Forecast includes a projection of approximately \$2.6 million in FY2023. From FY2024 forward, non-rate revenue line items were projected to increase at a rate of 3.0% annually.

**PAYMENTS FROM PARTNERS – CAPITALIZED OVERHEAD (OTHER REVENUE).** For capital budgeting purposes, District personnel costs directly associated with the development of capital projects are included in the CIP cost projections and ultimately capitalized with the projects. For the WWSP and other partner projects, the District receives payments from its partners for their share of project costs (including District overhead).

Although the Forecast model includes only the District’s share of partner project costs like the WWSP, it recognizes the partners’ share of capitalized overhead as a resource (non-rate revenue) since that portion of the District’s operational costs is included in its budget and Forecast O&M expenses but will

be paid by partners. In other words, the Forecast includes the District's total operational expenses, but offsets a portion of those expenses with the amounts the District will receive from its partners for capitalized overhead.

From FY2023 to FY2026, the Forecast includes between \$1.4 and \$1.6 million per year from partner reimbursements for capitalized overhead related to WWSP projects. This resource is eliminated after FY2026 as the WWSP will be complete, resulting in the FY2027 decline in *Other Revenue* in Table 6-1.

*PAYMENTS FROM PARTNERS – JOINT VENTURE OPERATIONS (OTHER REVENUE).* Similar to the reimbursements for capitalized overhead related to the WWSP, the District will begin charging its partners for the costs of joint venture operations (JV Ops) as the WWSP winds down and the District transitions into its role as managing agency of the WWSS. These JV Ops costs will include both personnel costs and the costs of WWSS-related materials and services (M&S).

Partner payments for JV Ops are projected to increase from \$81 thousand in FY2023 to \$755 thousand in FY2027 when the WWSS is in full operation. Going forward, these payments are projected to escalate at 4.5% annually, consistent with the operating costs that the District will incur for JV Ops.

*WHEELING REVENUE (OTHER REVENUE).* As discussed in *Section 3.2 – Water Demand Forecast*, the service area agreement with Beaverton affected a portion of the District's service area subject to withdrawal. Although withdrawn from the District, the District continued to serve these customers until Beaverton executed certain "transfer activities" governed by the agreement. Beaverton then transferred customers to a wheeling status in which Beaverton provides water for the District to convey to Beaverton's customers. The agreement provides a basis for compensation to the District for providing wheeling services to Beaverton.

Beaverton can also serve withdrawn customers directly with its own infrastructure and has done so with select portions of the withdrawal areas. As Beaverton moves its customers from the "wheeling" status to the "separated" status, the District ceases to provide wheeling services to Beaverton. The District assumes that Beaverton will continue to fully separate the withdrawn customers in the coming years and estimates annual wheeling revenue declining from approximately \$922 thousand in FY2023 to approximately \$211 thousand in FY2027. The District also assumes that a small portion of withdrawn customers will receive wheeled water on a permanent basis and increased projected wheeling revenue in FY2028 and beyond at a rate of 3.0% annually.

*INTEREST INCOME (OTHER REVENUE).* Interest earnings on the District's reserve funds were calculated based on assumed interest rates of 0.88% in FY2023, 2.0% in FY2024 and FY2025, and annual rates that decline by approximately 0.25% per year until reaching 1.0% in FY2028. The Forecast then uses 1.0% annually for each year thereafter.

Given the substantial level of reserves currently held by the District plus the addition of approximately \$100 million from WIFIA (i.e., planned for June 2022), the Forecast includes interest earnings totaling approximately \$2.6 million in FY2023 and \$1.8 million in FY2024. As the District uses cash reserves for capital expenditures over the next several years, interest earnings are projected to decline to approximately \$915 thousand in FY2025 and FY2026. In FY2027 and beyond, interest earnings are projected to rebound as the District's annual capital expenditures will be much lower and its reserve fund balances grow in preparation for future expansions of the WWSS.

*WIFIA.* The WIFIA program is described in detail in Section 5 of this Financial Plan.

**REVENUE BONDS.** Along with the WIFIA program, revenue bond issuances are described in detail as part of Section 5 – Capital Financing Plan.

**RESERVES (NET FUND WITHDRAWALS).** Cash fund withdrawals provide an important source of funds for the District as the WWSP has moved into full swing. For the last 5-10 years, the District proactively planned for these capital investments and has funded expenditures-to-date entirely with current revenues and reserves. Through the remainder of the WWSP, the District will need to shift away from cash reserves as a source of funding and instead rely on current revenue plus debt-financing for its portion of the WWSP and other expenditures. After the WWSP is complete and the District begins to accumulate reserves that exceed its target minimum balances, future reserve balances will again play an important role in keeping future rate revenue adjustments steady and low.

## 6.4 Projected Uses of Funds

The following graph and table show the projected uses of funds over the presentation period. The major categories of uses include:

- Operations and Maintenance (O&M) Costs (including debt issuance costs)
- Purchased Water Program (including pumping power costs)
- Capital Expenditures
- Net Increases in Reserves
- Debt Service

As shown in Figure 6-3, the largest variability in the projected uses of funds is driven by the District’s planned capital expenditures. Table 6-2 (next page) presents the tabular detail of the projected uses of funds, with descriptions below and on following pages.

Figure 6-3: Projected Uses of Funds by Fiscal Year

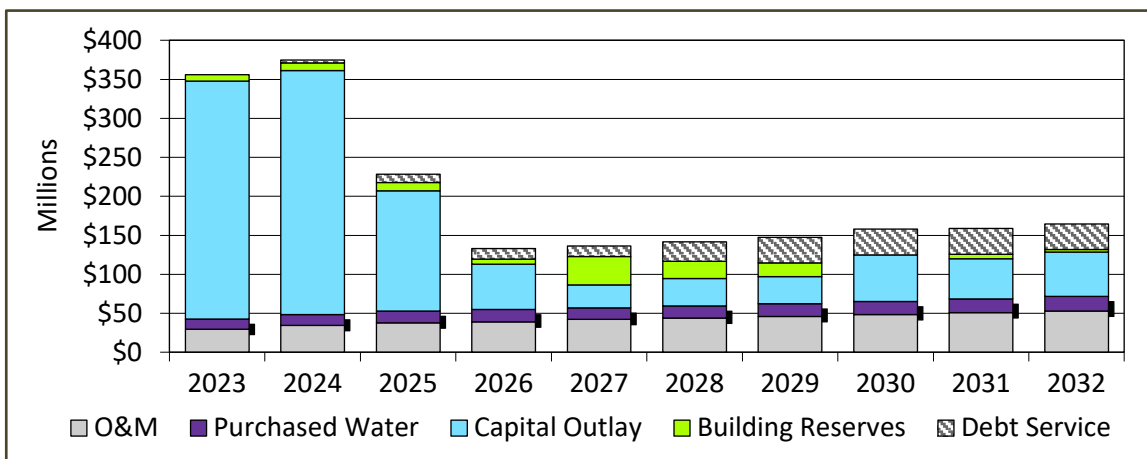




Table 6-2: Annual Expenditures and Increases in Reserves by Fiscal Year (\$ Millions)

|                     | 2023           | 2024           | 2025           | 2026           | 2027           | 2028           | 2029           | 2030           | 2031           | 2032           | Totals          |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| O&M Costs [1]       | \$29.6         | \$34.5         | \$37.7         | \$39.1         | \$42.3         | \$44.1         | \$46.1         | \$48.4         | \$50.8         | \$53.1         | <b>\$425.7</b>  |
| Purchased Water [2] | 13.1           | 14.1           | 15.2           | 15.9           | 14.6           | 15.3           | 16.1           | 16.9           | 17.7           | 18.6           | <b>157.5</b>    |
| Capital Outlay      | 305.0          | 312.7          | 154.2          | 58.1           | 29.7           | 35.1           | 34.8           | 59.7           | 51.4           | 57.0           | <b>1097.7</b>   |
| Building Reserves   | 8.0            | 9.9            | 10.8           | 6.4            | 36.5           | 22.1           | 17.5           | -              | 6.0            | 3.1            | <b>120.3</b>    |
| Debt Service        | -              | 3.8            | 10.5           | 13.4           | 13.4           | 25.2           | 33.0           | 33.0           | 33.0           | 33.0           | <b>198.3</b>    |
| <b>Totals</b>       | <b>\$355.8</b> | <b>\$375.0</b> | <b>\$228.4</b> | <b>\$132.9</b> | <b>\$136.5</b> | <b>\$141.9</b> | <b>\$147.5</b> | <b>\$158.0</b> | <b>\$158.8</b> | <b>\$164.7</b> | <b>\$1999.5</b> |

[1] O&M costs shown include debt issuance costs.

[2] Consistent with past reporting, Purchased Water includes pumping power costs.

**O&M COSTS.** Operations and maintenance costs account for most of the day-to-day expenditures for operating a water utility. O&M costs include labor, benefits, and M&S (i.e., materials and services), among other items. The District’s 2021-2023 budget served as a starting point for the O&M forecast included in this Financial Plan. Most O&M costs were projected to escalate from FY2023 data at 8.0% annually through FY2025, 4.5% annually thereafter. Also included in the *O&M Costs* row in Table 6-2 are debt issuance costs which were discussed in *Section 5.3 – Significant Debt Program Assumptions*.

**PERS PENSION COSTS (O&M COSTS).** Employees of the District are provided pensions through the Oregon Public Employees Retirement System (Oregon PERS or simply “PERS”).<sup>24</sup> Oregon PERS provides a variety of pension plans for public employees based on when an employee first enters public service. These pension plans are commonly referred to as PERS Tier 1 and Tier 2, and Oregon Public Service Retirement Plan (OPSRP). These plans vary in benefits but include both a defined benefits component and a defined contribution component.

Like many pension plans, the Oregon PERS plans currently have an unfunded actuarial liability (UAL). The PERS UAL is allocated to employers of the plan. Based on its latest valuation report, the District estimates its current share of PERS UAL is approximately \$14.7 million. The District’s share of the PERS UAL is the result of many factors including changes in actuarial assumptions, earnings on the PERS investments, and other PERS policies (e.g., rate collaring). The District’s share of PERS UAL is a liability of the District and is reported in the District’s financial statements consistent with the requirements of the various Government Accounting Standards Board (GASB) statements on pension reporting.

In the 2019-21 biennium, the District’s management requested \$20 million to fund a PERS side account with two deposits of \$10 million each. The deposits were to be separated in time to mitigate market risks since the PERS investments of side accounts has greater market risk than the District’s investment portfolio. Ultimately, only the first \$10 million deposit was made which almost cut the District’s UAL in half to approximately \$10.5 million. Since then, the Oregon PERS discount rate was lowered, and the District’s UAL increased accordingly to the current level of \$14.7 million.<sup>25</sup> Nonetheless, funding the side account resulted in lower PERS rates and payments by the District, and allows the District’s assets to be invested in a manner more consistent with long-term retirement needs.<sup>26</sup>

<sup>24</sup> Oregon PERS is commonly known by and referred to using only the acronym “PERS”. This abbreviated version is even used on the Oregon PERS website and by Milliman, Inc. in its actuarial valuation report for Oregon PERS.

<sup>25</sup> For details on the District’s PERS valuation and a system-wide analysis of OPERS, see *Appendix F – PERS Valuation Report*.

<sup>26</sup> The District’s investment policies restrict investments to have a maturity of no more than five years whereas OPERS-funded side accounts are invested consistent with long-term retirement funds.

*PURCHASED WATER (INCLUDES FUTURE WWSS SUPPLY).* Based on the District’s 2021-2023 budget and subsequent Portland rate information, supply costs are projected to escalate from FY2023 to FY2026:

Table 6-3: Source Water Rates and Total Costs (FY2023–FY2027)

|                                 | 2023          | 2024          | 2025          | 2026          | 2027          |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|
| <b>Portland</b>                 |               |               |               |               |               |
| Purchase (MGD) [1]              | 13.16         | 13.16         | 13.16         | 13.16         | 0.00          |
| Rate (\$/CCF) [2]               | \$1.461       | \$1.642       | \$1.769       | \$1.843       | \$2.250       |
| <b>Annual Cost (\$ million)</b> | <b>\$9.4</b>  | <b>\$10.5</b> | <b>\$11.4</b> | <b>\$11.8</b> | <b>\$0.0</b>  |
| <b>JWC</b>                      |               |               |               |               |               |
| Purchase (MGD) [3]              | 7.28          | 7.36          | 7.44          | 7.51          | 14.20         |
| Rate (\$/CCF) [4]               | \$0.764       | \$0.825       | \$0.891       | \$0.931       | \$0.973       |
| <b>Annual Cost (\$ million)</b> | <b>\$2.7</b>  | <b>\$3.0</b>  | <b>\$3.2</b>  | <b>\$3.4</b>  | <b>\$6.7</b>  |
| <b>WWSS</b>                     |               |               |               |               |               |
| WWSS Supply (MGD) [5]           |               |               |               |               | 6.55          |
| Unit Cost (\$/CCF) [6]          |               |               |               |               | \$1.992       |
| <b>Annual Cost (\$ million)</b> |               |               |               |               | <b>\$6.4</b>  |
| <b>Total Annual Cost</b>        | <b>\$12.1</b> | <b>\$13.5</b> | <b>\$14.6</b> | <b>\$15.2</b> | <b>\$13.1</b> |
| <i>% Change</i>                 |               | 11.7%         | 8.0%          | 4.5%          | (14.0%)       |

[1] Contract minimum (as annual avg.); min. purchase assumed for financial planning.

[2] Portland rate forecast provided by Portland thru FY2026.

[3] Annual avg. required to meet Forecast water demands after Portland purchases.

[4] JWC rates escalated by 8.0% annually through 2025, 4.5% per year thereafter.

[5] Annual avg. required to meet water demands in FY2027 (i.e., after JWC purchases).

[6] Preliminary unit cost estimate for WWSS water supply.

In FY2027, the melded cost of the District’s water will drop due to the change in source water supplies. As presented in Figure 3-3, Table 6-3 summarizes the Forecast’s assumptions regarding future water supplies and related costs. These projections assume that the District will purchase more JWC water after switching its other source from Portland to the WWSS. In doing so, overall source water costs decline by approximately \$2.1 million (14%) in FY2027.

*PUMPING POWER COSTS (PURCHASED WATER).* As noted previously, pumping power costs are also included in the Purchased Water category in Table 6-2. Currently, the District incurs these costs for moving water from its 385, 426, and 435 pressure zones to higher elevations in its service area. Consistent with most other O&M projections, pumping power costs are projected to escalate from the FY2023 budget at an annual rate of 8.0% through FY2025, then 4.5% in FY2026. However, when the District switches its gravity-fed water supply (Portland) to a pumped source (WWSS), pumping power costs will increase by approximately \$770 thousand in FY2027, from \$592 thousand in FY2026 to \$1.36 million.

When the WWSS pumping costs are added to in-District pumping and combined with the FY2027 reduction in source water costs, the net decrease in *Purchased Water* shown in Table 6-2 is approximately \$1.36 million, or 8.6% lower than the FY2026 total. After FY2027, *Purchased Water* costs are projected to escalate at approximately 5.1% in FY2028, then slow gradually to 4.5% annual increases in FY2036 and beyond.

*CAPITAL EXPENDITURES (CAPITAL OUTLAY).* The District's CIP is described in Section 4 of this Financial Plan. Capital outlays from O&M are also included as *Capital Outlay* in Table 6-2. These outlays are minor in comparison to the CIP, with approximately \$210 thousand in the District's FY2023 budget and \$500 thousand in FY2024, escalating at 4.5% annually thereafter.

*NET INCREASES IN RESERVES (BUILDING RESERVES).* In years when the District will use WIFIA and revenue bond funding for portions of its capital expenditures, revenue from rates and other sources may be available to increase reserve balances, thereby making it available for use in future years. Reserve fund balances will also increase in the years following the completion of the WWSS, when the District's rates will have increased to meet the financial targets and metrics associated with its debt financings and future debt repayments.

*DEBT SERVICE.* Projected debt service is driven by the capital financing mix discussed in Section 5.2.1 – *Target Cash and Debt Financing Profile* and the debt program assumptions detailed in Section 5.3.

## 6.5 Detailed Financial Projections

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*Appendix G – Forecast Model Summary Results* includes a copy of detailed projections from the summary version of the District's Forecast model.

## 7 Funds and Reserves

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Reserves are critical to the prudent financial management of any utility. Adequate reserve levels can provide the necessary funding in low sales years or offset emergency capital projects, both minimizing the impacts to rates in the short-term. This section presents the summary reserves that the District uses in the Forecast model. The projections in this section demonstrate that the District will have sufficient liquidity to meet both its operating and capital investment commitments.

Before presenting the summary reserves and results from the Forecast model, however, it may help to understand the District's budgetary fund structure and how the District combines some funds (and ignores others) for financial planning purposes. The District's budget and accounting systems are structured around the following funds (fund titles italicized):

- On a day-to-day basis, all administration, operations, and maintenance activities are accounted for in the *General Fund*.
- Construction and capital improvement activities are accounted for in the *Capital Improvement Fund*.
- The *Capital Reserve Fund* is used to hold resources available for current and future capital investments for the District.
- Historically, the *Revenue Bond Debt Service Fund* accounted for the District's debt service obligations.
- The District is a member of, and provides management services for, the *Willamette River Water Coalition (WRWC)*, and accounts for these activities in a separate fund.
- The *Customer Emergency Assistance (CEA) Fund* accounts for the resources and requirements used to provide limited emergency assistance to qualified District customers.
- The *Willamette Intake Facilities Fund* accounts for the activities of the WIF Commission; an intergovernmental agreement among TVWD and five neighboring cities.
- The *Willamette Water Supply System Fund* accounts for the activities of the WWSS Commission; an intergovernmental agreement among TVWD and the cities of Beaverton and Hillsboro.

Each of these funds is described below.

### 7.1 Description of District Funds

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*GENERAL FUND (FUND 01)*. All six of the District's operating departments and District staff are accounted for in the General Fund. Additionally, the Purchased Water budget and payments of right-of-way fees are included in the General Fund as a non-departmental expenditure. Purchased Water represents the District's single largest materials and services (M&S) expenditure.

*CAPITAL IMPROVEMENT FUND (FUND 11)*. The Capital Improvement Fund accounts for the resources and expenditures used for acquisition and/or construction of major capital facilities. It does not maintain a fund balance. All reserves for capital investments are held in the Capital Reserve Fund and transferred to the Capital Improvement Fund as needed to fund capital outlays. The sole resource for the Capital Improvement Fund is transfers from the Capital Reserve Fund.

*CAPITAL RESERVE FUND (FUND 18)*. The Capital Reserve Fund is used to hold resources available for current and future capital investments for the District. The use of the Capital Reserve Fund allows the flow of funds for current and future uses to be managed in a transparent manner consistent with

budgeting best practices. In anticipation of the significant costs associated with WWSP, the District has increased its reserves deliberately. These reserves are easily monitored in a single fund.

*DEBT PROCEEDS FUND (FUND 22).* The Debt Proceeds Fund is used to hold resources from debt issuances that are available to fund capital expenditures of the District. The use of the Debt Proceeds Fund allows the flow of funds for current and future uses to be managed in a transparent manner consistent with budgeting best practices.

*REVENUE BOND DEBT SERVICE FUND (FUND 31).* The Revenue Bond Debt Service Fund accounts for the District's obligations for principal and interest payments on its outstanding revenue bonds. The District fully redeemed its last outstanding revenue bonds in June of 2015; however, the fund is maintained for future use.

*WILLAMETTE RIVER WATER COALITION (FUND 41).* This joint venture fund is used to account for the Willamette River Water Coalition (WRWC), a coalition of four local governments of which the District is a member. The WRWC's purpose is to preserve access to the Willamette River as a municipal and industrial water source. The budget is set by the WRWC governing body and administered by the District. Resources for the WRWC Fund come from member agency dues based on a formula agreed to in an intergovernmental agreement.

*CUSTOMER EMERGENCY ASSISTANCE FUND (FUND 43).* The purpose of the Customer Emergency Assistance (CEA) Fund is to account for the resources and requirements used to provide limited emergency assistance to qualified District customers. The resources for the CEA Fund are transferred in from the General Fund or come from voluntary contributions from customers, District staff, and members of the Board. A third-party administrator reviews and qualifies requests from customers facing temporary financial hardships. Any unspent funds remaining at the end of each budgetary period remain in the CEA Fund to meet future customer assistance needs.

*WILLAMETTE INTAKE FACILITIES (FUND 44).* The WIF Fund accounts for the activities of the WIF Commission; an intergovernmental agreement whose members include TVWD and the cities of Beaverton, Hillsboro, Sherwood, Tigard, and Wilsonville. The WIF owns, operates, and maintains the intake facilities at the Willamette River Water Treatment Plant in Wilsonville for the benefit of its members. As the Managing Agency, TVWD incorporates the budget adopted by the WIF Board of Commissioners into the District's biennial budget. Resources for the fund include payments by members for operating expenses and contributions for capital outlay. The WIF is audited separately, and the fund is not included as part of TVWD's audited financial statements.

*WILLAMETTE WATER SUPPLY SYSTEM (FUND 45).* The WWSS Fund accounts for the activities of the WWSS Commission; an intergovernmental agreement among TVWD and the cities of Beaverton and Hillsboro. The WWSS Commission was established to design and construct the Willamette Water Supply System by 2026, and will own, operate, and maintain the assets that make up the system for the benefit of the partners. As the Managing Agency, TVWD incorporates the budget adopted by the WWSS Board of Commissioners into the District's biennial budget. Resources for the fund include payments by members for operating expenses and contributions for capital outlay. The WWSS is audited separately. Following governmental accounting standards, the WWSS is considered a component unit of TVWD.

## 7.2 Projected Reserve Balances

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The Forecast is a cash flow model designed for financial planning around the District's future cash requirements. As such, the District uses it to forecast *reserves* rather than *funds*. In doing so, some of the *Funds* described in Section 7.1 above are either combined into a *cash reserve*, while most are excluded from the Forecast altogether.

For example, some of the *Funds* listed above were established only to manage the joint ventures that the District serves as the Managing Agency on behalf of its partners. Funds 41, 44, and 45 exist to account for the activities of various partnerships, where the costs and partner contributions are tracked for budgeting, accounting, and reporting purposes.

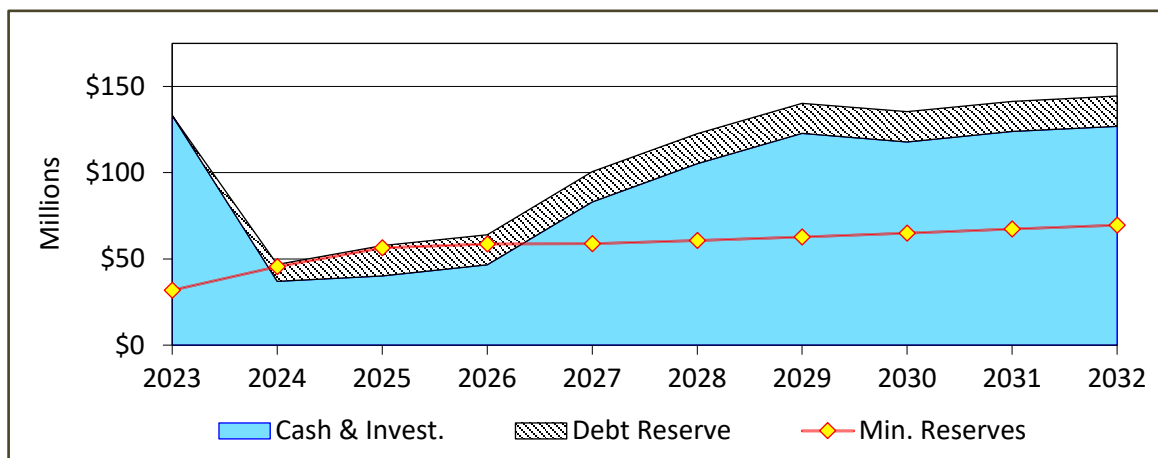
In contrast, the Forecast is only concerned with the *District's* revenue requirements and how those requirements will be met with available cash (including liquid investments) and future debt. Therefore, partner costs shares are not included, and the District's costs are tracked as uses of cash reserves and debt proceeds (from debt issued to the District only). For this reason, it is unnecessary to forecast the District's *Funds*. Rather, the following *Reserves* are tracked for financial planning purposes:

- **Cash & Investments**
  - Includes the estimated combined balance of the General Fund (Fund 01) and Capital Reserves Fund (Fund 18).
  - Sources of Funds include all *Rate Revenue* and *Other Revenue* described in Section 6.3.
  - Uses of Funds include:
    - All *O&M Costs* and *Purchased Water* described in Section 6.4.
    - *Capital Outlays from O&M Budget* which is mentioned under *Capital Expenditures (Capital Outlay)* in Section 6.4.
    - Transfers to other Reserves for capital expenditures and debt service.
- **Bond Proceeds Reserve**
  - Sources of Funds are future revenue bond issuances, as outlined in Section 5 – *Capital Financing Plan*.
  - Uses of Funds include splitting each revenue bond issuance into:
    - Issuance costs,
    - Debt reserve requirement, and
    - Proceeds for capital expenditures.
  - The Forecast assumes that 100% of each revenue bond issuance will be spent or transferred to another Reserve for one of these purposes in the year it is issued. Therefore, this Reserve does not carry a balance.
- **Revenue Bond Debt Service Reserve**
  - Sources of Funds include transfers for debt service and bond reserve requirements.
  - Interest earnings on reserve balances also accumulate in this Reserve.
  - Revenue bond debt service is the only Use of Funds from this Reserve.
- **Reimbursement Fee SDC Account**
  - The reimbursement fee portion of SDC receipts is tracked as the Source of Funds in this Reserve.
  - In each Forecast year, all SDC receipts are used to fund a portion of capital expenditures.
  - This Reserve carries no balance.

- **Improvement Fee SDC Account**
  - The improvement fee portion of SDC receipts is tracked as the Source of Funds in this Reserve.
  - In each Forecast year, all SDC receipts are used to fund a portion of capital expenditures.
  - This Reserve carries no balance.
  
- **WIFIA Reserve**
  - Sources of Funds include:
    - WIFIA proceeds, as outlined in Section 5 – *Capital Financing Plan*, and
    - Transfers for WIFIA loan repayments.
  - Uses of Funds include:
    - Issuance costs,
    - Proceeds for capital expenditures (i.e., eligible project costs as defined in the District’s WIFIA Loan Agreement), and
    - WIFIA loan repayments.
  - The Forecast assumes that 100% of each WIFIA draw will be spent or transferred to another Reserve for one of these purposes in the year issued<sup>27</sup>, and future WIFIA loan repayments will be transferred in annually from Cash & Investments. Therefore, this Reserve does not carry a balance.

Figure 7-1 presents the District’s projected cash reserve balances over the 10-year presentation period.

Figure 7-1: Projected Year-End Cash Balances by Fiscal Year



As shown in Figure 7-2 and Figure 7-3 on the next page, the District is projecting that its Cash & Investments Reserves and Debt Service Reserve will meet their balance targets (250 days of O&M and MADS, respectively) throughout the presentation period.

<sup>27</sup> WIFIA funds may be used to reimburse the District for prior WIFIA-eligible expenditures.

Figure 7-2: Cash and Investments Year-end Balances and Annual Targets by Fiscal Year

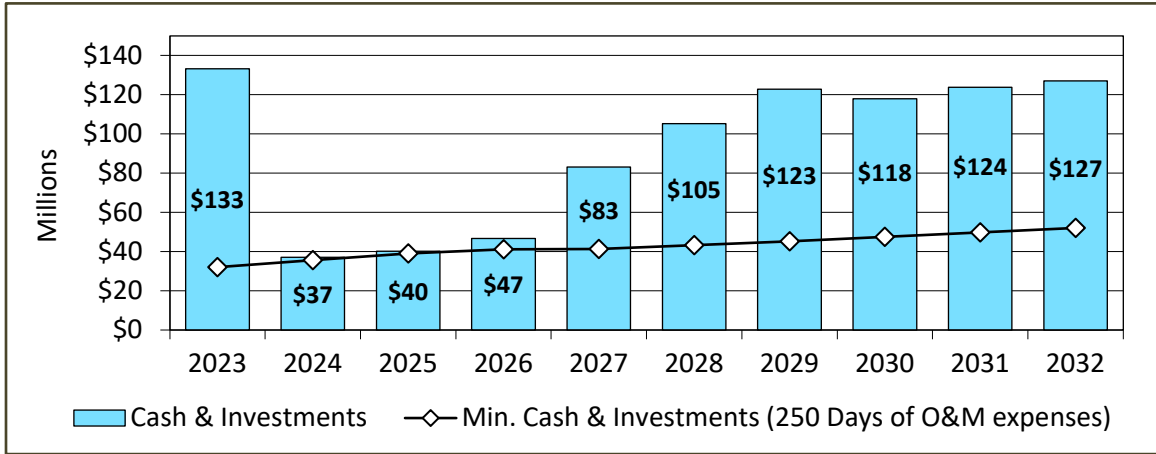
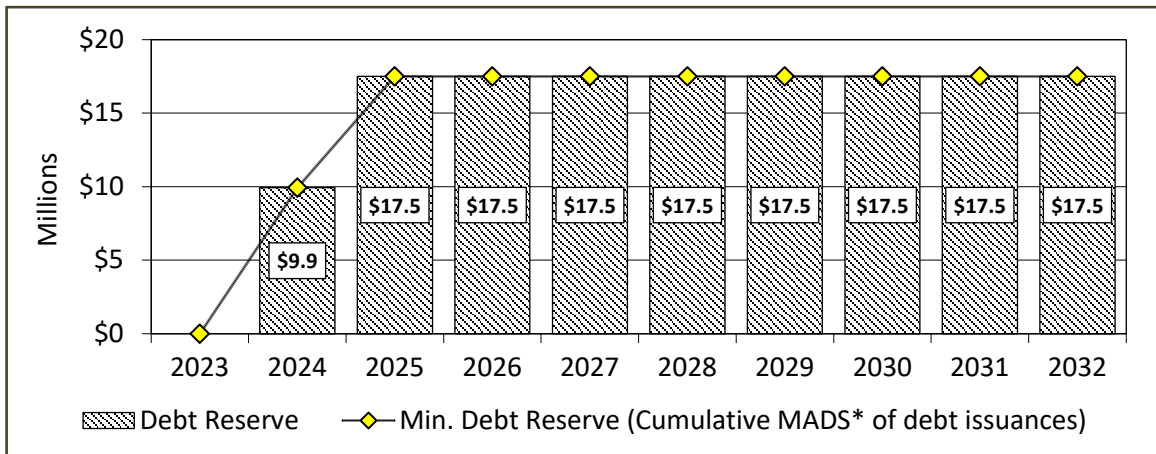


Figure 7-3: Debt Service Reserve Balance Requirements by Fiscal Year



\* Maximum annual debt service.

### 7.3 Conclusion

As stated in Section 1.4, many assumptions were employed in the financial planning analysis underlying this document. For this reason, the projected results presented are not concrete in nature and should be considered as planning estimates.

In the future, the actual rate adjustments required to fund the District's revenue requirements may vary from the estimates presented in Section 6, and the resulting reserve balances will vary from the projections shown above. As time passes and projections become reality, future capital requirements, O&M costs, customer demands, and other assumptions will influence the accuracy of these estimates. Therefore, the District will continue to take great care to mitigate risk by following prudent management practices, including reviewing rates and revenues annually (at a minimum) to see if additional adjustments are necessary.



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# Appendices

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The following subsections contain supporting documents and other related materials including:

A – Proposed Financial Plan Assumptions for the Financial Management Policies

B – Ordinance 01-19 – Authorizing the Issuance of Debt

C – Master Revenue Bond Declaration

D – First Supplement to Master Revenue Bond Declaration

E – Parity Certificate and Transcript Documents

F – PERS Valuation Report

G – Forecast Model Summary Results

H – Map – Tualatin Valley Water District (Washington County, Oregon)

*Appendices not sent electronically due to size limitations, but they are available upon request.*

# Tualatin Valley Water District

1850 SW 170th Avenue  
Beaverton, OR 97003

[www.tvwd.org](http://www.tvwd.org)



**TUALATIN VALLEY**  
WATER DISTRICT

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**TUALATIN VALLEY**  
WATER DISTRICT

**Date:** May 18, 2022

**To:** Board of Commissioners

**From:** Paul L. Matthews, Chief Financial Officer

**Subject:** Establishing the Cost-of-Living Adjustment (COLA) for Employee Compensation

**Requested Board Action:**

Consider adopting a resolution establishing the cost-of-living adjustment (COLA) for employee compensation.

**Key Concepts:**

- The District's pay-adjustment formula (Formula) used to adjust salaries integrates a consumer price index (CPI) as a proxy to establish a COLA.
- Previously the Board provided guidance to the Chief Executive Officer on a floor of 2% to be used as the COLA if the year-over-year change in the CPI was less than 2%.
- Based on unique provisions of the District's Formula, recent increases in the CPI could create unintended impacts on employee compensation which could result in compensation outside of market conditions.
- Formally establishing a floor and ceiling to the COLA would allow the CEO to implement pay adjustments on July 1<sup>st</sup> consistent with the District's performance-based pay system while avoiding the potential unintended consequences of using only the CPI as the COLA.
- Among other recommendations, the Board's Finance Committee recommends a ceiling of 5% be used to complement the existing floor of 2% with a requirement that the CEO brief the Board if inflation exceeds the 5% ceiling.

**Background:**

In the 1990s, the District implemented a pay-for-performance compensation system that uses a pay-adjustment formula (Formula) to adjust employees' salaries on an annual basis. The Formula has three components:

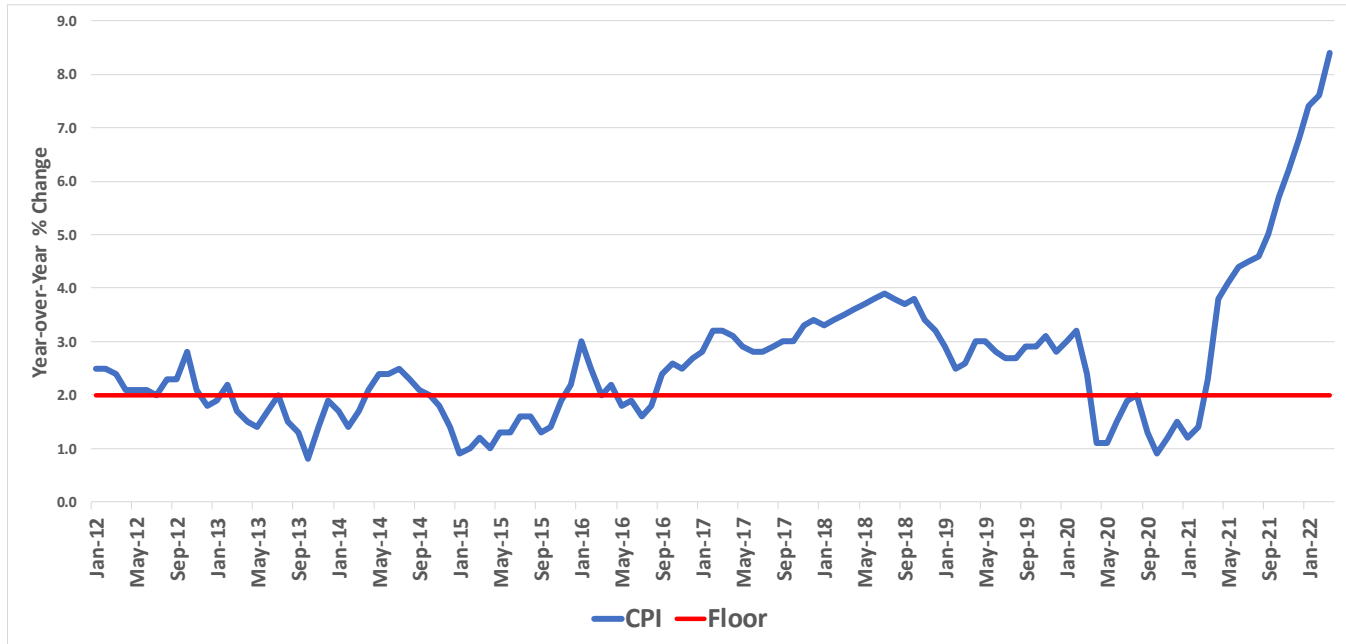
1. A performance score that ranges from 1 to 5. Supervisors assess each employee's performance score based on a detailed rating of the employee's performance in a year. Each employee has performance standards and standard criteria to guide the supervisor's evaluations. The performance score is divided by 2.75 to generate the performance portion of the Formula.
2. Compa-ratio that ranges from 0.80 to 1.20. The compa-ratio measures an employee's pay rate relative to the mid-point of the employee's grade. As an example, a compa-ratio of 0.80 indicates that the employee's pay rate is 80% of the mid-point for the employee's grade. Similarly, a compa-ratio of 1.00 indicates that the employee is paid at the mid-point of the employee's grade. The maximum compa-

ratio (i.e., 1.20) is divided by the employee's actual compa-ratio to generate the compa-ratio portion of the Formula.

3. COLA. The District currently uses the year-over-year change in the Consumer Price Index (CPI-U All items – West - Size Class A<sup>1</sup>) as the basis for the COLA. Currently there is a floor for the COLA of 2%. There is no ceiling for the COLA. The maximum of the reported CPI-U or 2% is used to generate the COLA portion of the Formula.

The actual adjustment in pay for each employee is determined by multiplying the three factors by the employee's current rate of pay. The actual rate of pay is capped so that it cannot exceed a compa-ratio of 1.20.

Figure 1 presents the CPI since January 2012. In addition to the CPI, Figure 1 also includes the 2% floor for comparison.



**Figure 1: Annual Rate of Change in CPI-U Used in Formula**

As the figure depicts, recent inflationary pressures far exceed the historical rates of inflation used in the Formula. This historically high level of inflation effects the overall Formula by being a factor multiplied by the other factors. During periods of high inflation, the Formula yields extreme results. Similarly, during periods of low or negative inflation (i.e., deflation), the formula also yields extreme results. The 2% floor, however, prevented the extreme results during periods of deflation or low inflation.

To minimize the disruption and unintended consequences of the Formula, management recommends the Board establish a ceiling to complement the floor and avoid extreme outcomes during periods of high inflation.

Management presented the recommendation and other technical information on the Formula to the Board's Finance Committee. The Finance Committee provided the following recommendations:

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<sup>1</sup> The District basis the COLA on the year-over-year change in the "CPI-U All items – West - Size Class A" as reported for May of the year by the Bureau of Labor Statistics.

1. Establish a ceiling for the COLA of 5% and formalize the District's current practice of the COLA floor at 2%.
2. Direct the District's CEO to include an examination of the Formula as part of the classification/compensation study which will be underway shortly.
3. If in a future year inflation exceeds 5%, management should present that information to the Board for its consideration.

The proposed resolution implements the Finance Committee's recommendations.

**Budget Impact:**

The budget impact of establishing a ceiling on the COLA depends on two factors: the level of the ceiling and the CPI-U that would otherwise be used to determine the COLA. The CPI-U number that would be used in the Formula is not published by the Bureau of Labor Statistics until mid-June. Assuming the year-over-year change in the CPI is 8.4% (as reported for the month of March in April), establishing a ceiling for the COLA is expected to reduce the District's personnel service expenditures by between \$800,000 and \$850,000 in FY2023 (i.e., the last year of the biennium).

**Staff Contact Information:**

Paul L. Matthews; Chief Financial Officer; 503-848-3017; [paul.matthews@tvwd.org](mailto:paul.matthews@tvwd.org)

**Attachments:**

Proposed resolution

**Leadership Team Initials:**

|                               |            |  |                    |
|-------------------------------|------------|--|--------------------|
| Chief Executive Officer (AIC) | <i>PM</i>  | Customer Service Manager                     | <i>AC</i>          |
| Chief Engineer                | <i>CEP</i> | IT Services Director                         | N/A                |
| Chief Financial Officer       | <i>PM</i>  | Communications and Public Affairs Supervisor | <i>CW</i>          |
| General Counsel               | <i>CB</i>  | Water Supply Program Director                | <i>[Signature]</i> |





**TUALATIN VALLEY**  
WATER DISTRICT

## RESOLUTION NO. 08-22

### A RESOLUTION ESTABLISHING THE COST-OF-LIVING ADJUSTMENT (COLA) FOR EMPLOYEE COMPENSATION

WHEREAS, the District uses a performance-based pay system to adjust employees' compensation on an annual basis; and

WHEREAS, the District's performance-based pay systems is designed to reward employees who achieve high levels of performance; and

WHEREAS, the performance-based pay system uses a formula that can have unintended consequences during periods of unusually high or low inflation; and

WHEREAS, the District implemented a 2% floor to the COLA portion of the performance-based pay systems to mitigate the unintended consequences during periods of unusually low inflation; and

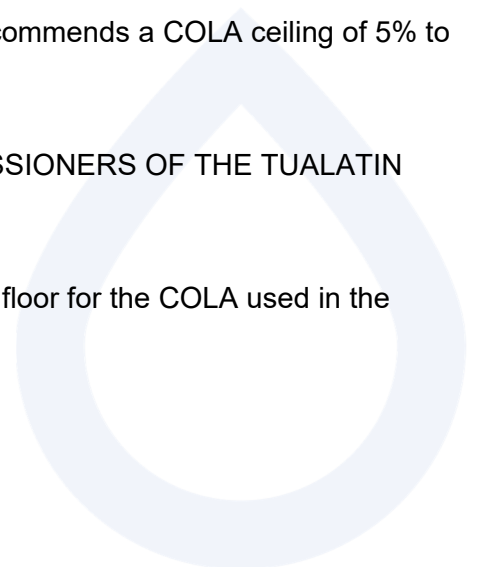
WHEREAS, the economy is currently experiencing annual rates of inflation that have not been experienced since the 1980s; and

WHEREAS, without a ceiling to the COLA, the District's performance-based pay system could result in pay rates outside of market conditions; and

WHEREAS, the Finance Committee of the Board of Commissioners recommends a COLA ceiling of 5% to be used in the performance-based pay system.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF THE TUALATIN VALLEY WATER DISTRICT THAT:

Section 1: The District's Board of Commissioners hereby establishes a floor for the COLA used in the District's performance-based pay system of 2%.





Section 2: The District's Board of Commissioners hereby establishes a ceiling for the COLA used in the District's performance-based pay system of 5%.

Section 3: The CEO is directed to examine the pay-adjustment formula used in the District's performance-based pay system during the District's 2022-23 classification and compensation study.

Section 4: The CEO is directed to notify the Board if the 5% COLA ceiling would be used for pay-adjustments effective after July 1, 2022.

Approved and adopted at a regular meeting held on the 18<sup>th</sup> day of May 2022.

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Todd Sanders, President

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Jim Doane, Secretary





**TUALATIN VALLEY**  
WATER DISTRICT

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**TUALATIN VALLEY**  
WATER DISTRICT

**Date:** May 18, 2022  
**To:** Board of Commissioners  
**From:** Andrew Carlstrom, Customer Service Manager  
**Subject:** Customer Information System (CIS) Implementation Update

**Key Concepts:**

The purpose of this presentation is to update the TVWD Board on current activities of the Customer Information System (CIS) project. The topic for this update is a review of project progress towards and preparations for go-live.

**Background:**

TVWD and Clean Water Services are in the process of implementing a new CIS, Open Smartflex, to meet both current and future business needs. The CIS project is a multi-year strategic initiative, in collaboration with partner Clean Water Services, to replace TVWD’s legacy utility billing system with a commercial solution.

The projected go-live date for customers and staff users is July 5 which will be followed by a contractual four-month stabilization period. This initial implementation will provide the District and Clean Water Services with the ability to subsequently implement additional improvements to both customer experience and operations.

**Budget Impact:**

This project is within TVWD’s Capital Improvement Plan (CIP).




**Staff Contact Information:**

Andrew Carlstrom, Customer Service Manager; 503-848-3024; [andrew.carlstrom@tvwd.org](mailto:andrew.carlstrom@tvwd.org)

**Attachments:**

None

**Leadership Team Initials:**

|                               |   |                               |  |
|-------------------------------|---|-------------------------------|--|
| Chief Executive Officer (AIC) |  | Customer Service Manager      |  |
| Chief Engineer                | N/A   | IT Services Director          | N/A  |
| Chief Financial Officer       |  | Human Resources Director      | N/A  |
| General Counsel               | N/A   | Water Supply Program Director | N/A  |

