



**TUALATIN VALLEY**  
WATER DISTRICT

## **TVWD BOARD OF COMMISSIONERS**

President Todd Sanders, PhD | Vice President Jim Duggan, PE  
Secretary Jim Doane, PE | Treasurer Carl Fisher | Acting Secretary Elliot Lisac

# **Board Meeting Agenda**

July 19, 2023

**REGULAR SESSION – 6:00 PM – TVWD HEADQUARTERS**

**CALL TO ORDER**

**COMMISSIONER OATHS OF OFFICE**

**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**

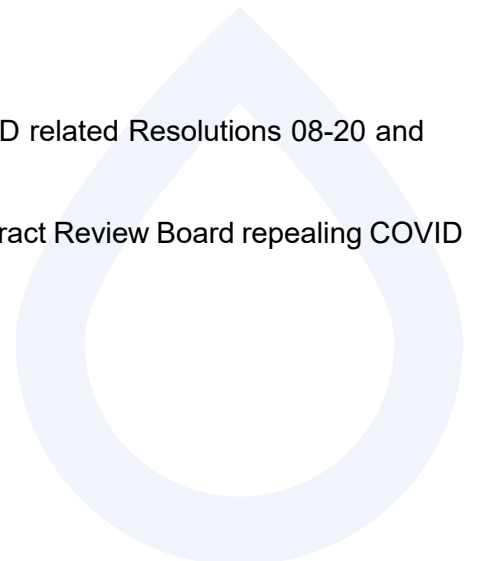
This time is set aside for persons wishing to address the Board on items on the Consent Agenda and matters not on the agenda. Additional public comment will be invited on agenda items as they are presented. Each person is limited to five minutes, unless an extension is granted by the Board. Should three 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 June 21, 2023, regular meeting minutes.
- B. Consider adopting Resolution 09-23 - A Resolution repealing COVID related Resolutions 08-20 and 09-21.
- C. Consider adopting Resolution 10-23 - A Resolution of the Local Contract Review Board repealing COVID related Resolution 07-20.

## **2. BUSINESS AGENDA**



- A. Resolution 11-23 - Approval of the TVWD 2023-25 Financial Plan. Staff Report – *Paul Matthews*
- B. Resolution 12-23 - TVWD rate setting process. Staff report – *Paul Matthews*
- C. Resolution 13-23 -Temporary water supply IGA between TVWD and the City of Beaverton. Staff Report - *Clark Balfour*
- D. Board officer and committee appointments. Staff Report – *Tom Hickmann*

## **EXECUTIVE SESSION – FOLLOWING REGULAR MEETING**

An executive session of the Board is called under ORS 192.660(2)(e) to conduct deliberations to negotiate real property transactions.

## **ADJOURNMENT**

If you wish to attend this meeting virtually or by telephone, please email [sam.kaufmann@tvwd.org](mailto:sam.kaufmann@tvwd.org) or call 503-848-3094 by 4:30 p.m. on July 19, 2023.

The meeting is accessible to persons with disabilities and those who need qualified bilingual interpreters. A request for an interpreter for the hearing impaired, a bilingual interpreter or for other accommodations should be made at least 72 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

# Board Meeting Minutes

June 21, 2023

## REGULAR SESSION – 6:00 PM

### CALL TO ORDER

Commissioners Present: Jim Doane, PE; Jim Duggan, PE; Carl Fisher; Elliot Lisac, Todd Sanders

Staff Present: Tom Hickmann, Chief Executive Officer; Clark Balfour, General Counsel; Paul Matthews, Chief Financial Officer; Pete Boone, PE, Chief Operating Officer; Dave Kraska, PE, Water Supply Program Director; Andrew Carlstrom, Customer Service Manager; Andrea Watson, Communications and Public Affairs Supervisor; Tim Boylan, IT Services Director and Sam Kaufmann, District Recorder.

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

Peter Boone presented recommendations for the Dick Schmidt memorial.

Commissioner Doane preferred the sign to be installed at the 209<sup>th</sup> fluoride facility. Commissioners Doane and Duggan were in favor of naming the facility “Dick Schmidt water facility”. Commissioner Duggan asked staff to ask Donna Schmidt for her input.

Sam Kaufmann presented revised options for both in-person and remote Board meetings. The Board agreed to return to in-person meetings, starting July 19, 2023.

Tom Hickmann informed the Board that State legislature did not award a potential funding package for the Willamette Water Supply Program.

### 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.

Commissioner Sanders updated the Board on the West Slope Water District (WSWD) and TVWD merger and noted this merger was initiated by the WSWD board.

Motion was made by Doane, seconded by Fisher, to begin discussions with WSWD to provide service for delivery of water and begin discussions of a merger. The motion passed unanimously with Doane, Duggan, Fisher, Lisac and Sanders voting in favor.

Commissioner Sanders mentioned the Board will be reviewing committee appointments at the July 2023 regular meeting and noted 2023-2024 will be his last year as Board President due to committee term limits.

## 1. PUBLIC HEARING

- A. Consider adopting Resolution 08-23, a Resolution adopting the budget and making appropriations for the Tualatin Valley Water District for the 2023-25 biennium. Staff Report – Paul Matthews

Commissioner Sanders opened the public hearing at 7:26 p.m. and called for public comment. There was none. Commissioner Sanders closed the public hearing at 7:27 p.m.

Motion was made by Doane, seconded by Lisac to adopt Resolution 08-23, a resolution adopting the budget and making appropriations for the Tualatin Valley Water District for the 2023-25 biennium. The motion passed unanimously with Doane, Duggan, Fisher, Lisac and Sanders voting in favor.

## 2. CONSENT AGENDA

- A. Approve the May 17, 2023, regular meeting minutes.
- B. Approve the June 6, 2023 work session meeting minutes.
- C. Approve the May 31, 2023 Budget Committee meeting minutes.
- D. Authorize the Board President to sign the certification of election results for the May 16, 2023 Special District Election.

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

## 3. BUSINESS AGENDA

- A. Financial Plan and Rate Process update. *Staff Report – Paul Matthews*

Paul Matthews presented his staff report on the financial plan.

Commissioners Lisac and Sanders preferred option 1.

Paul Matthews presented his update on the rate process.

## ADJOURNMENT

There being no further business, President Sanders adjourned the meeting at 7:58 p.m.

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Todd Sanders, President

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Jim Doane, Secretary



## JULY TALKIN' WATER

TVWD's next virtual forum will be held noon, July 12, and focus on drinking water quality. Pre-registration is not required for this event. You can find the link at: [www.tvwd.org/talkingwater](http://www.tvwd.org/talkingwater).

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## SCHMIDT MEMORIAL

In May, the Board directed the CEO to propose options for naming a facility in memory of Commissioner Schmidt. Staff offers the following options for consideration:

1. Farmington Fluoride Facility at SW 209<sup>th</sup> and Farmington Road
2. Grabhorn Reservoir and ASR
3. Taylor's Ferry Reservoirs and Pump Station
4. 189<sup>th</sup> Avenue Pump Station

Staff's recommendation is to re-name the Farmington Fluoride Facility

Suggested facility names:

1. Dick Schmidt Water Facility
2. Dick Schmidt Memorial Facility

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## CURRENT VIEW OF 209<sup>TH</sup>/FARMINGTON FACILITY



3 | CEO and Management Staff Report



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## SCHMIDT MEMORIAL – BUILDING SIGN OPTION



4 | CEO and Management Staff Report



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## SCHMIDT MEMORIAL – RAISED LETTERS

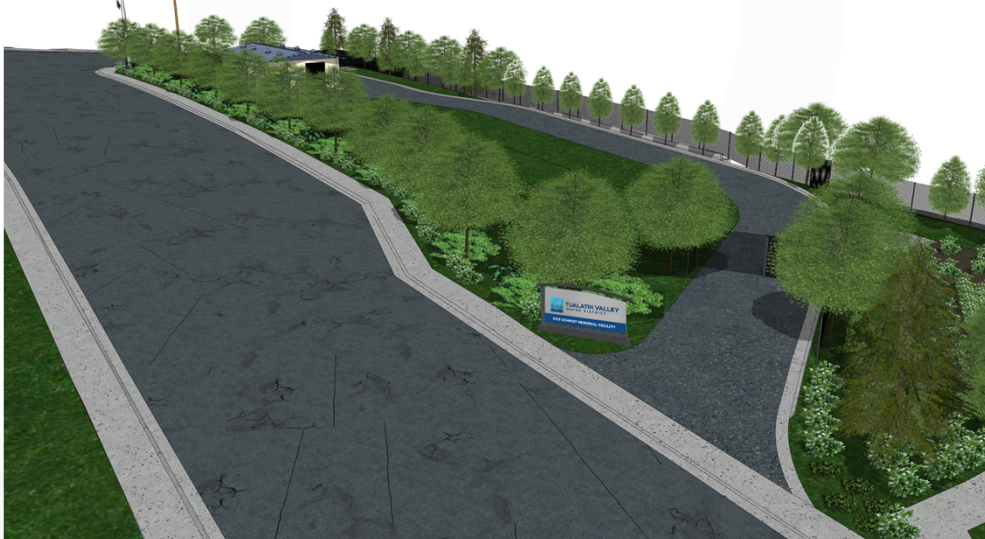


5 | CEO and Management Staff Report



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## SCHMIDT MEMORIAL – MONUMENT SIGN OPTION



6 | CEO and Management Staff Report



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## BOARD MEETINGS

Staff is presenting two options for future Board meetings:

### Option 1: Return to in-person meetings.

- Gives the best experience for members of the public and commissioners.
- Members of the public will have the option to participate remotely and in-person in order to comply with House Bill 2560.
- Commissioners who cannot attend in-person are excused if they give advanced notice.



**Staff recommends Option 1.**

### Option 2: Continue virtual meetings.

7 | CEO and Management Staff Report



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## DEPARTMENT REPORT

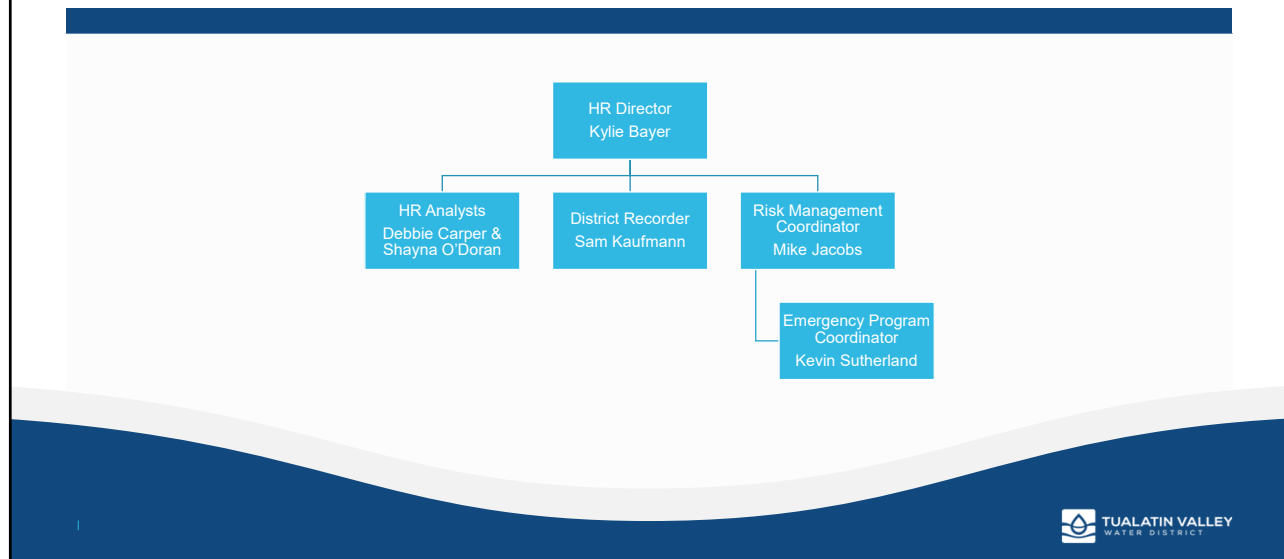
Kylie Bayer, Human Resources Director, will present the department report this evening.

8 | CEO and Management Staff Report



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## HR DEPARTMENT STRUCTURE



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## HR DEPARTMENT FUNCTIONS

- Recruitment and staffing
- Employee benefits
- Compensation
- Employee relations
- Labor and employment law compliance
- Records management
- Risk management and safety
- Emergency preparedness

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## DISTRICT INITIATIVES

### Classification/Compensation Project Goals

- Evaluate our classification structure and receive recommendations to ensure positions are grouped based on objective criteria
- Evaluate our classification structure for future needs and receive recommendations to ensure new positions are evaluated appropriately
- Identify our compensation philosophy
- Evaluate our compensation system and receive recommendations based on updated compensation philosophy, market data, internal equity, applicable laws
- Evaluate our policies and receive recommendations to align with best management practices and TVWD needs
- Receive guidance on how to best implement recommendations



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## DISTRICT INITIATIVES

### Classification/Compensation Project Progress & Next Steps

#### Completed

- Analyzed each District job with employee and supervisor feedback
- Drafted compensation philosophy, presented to Board at March 2023 work session
- Selected comparator agencies, approved by Board at April 2023 Board meeting
- Selected benchmark jobs and began compensation data collection

#### Remaining Tasks

- Receive and review compensation data from consultant
- Determine what changes, if any, to classification structure
- Review applicable District compensation policies
- Receive final recommendations and report, present to Board late summer/early fall 2023



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## **DISTRICT INITIATIVE**

### Diversity, Equity, Inclusion Project Goals

iSuccess Consulting Inc. will begin work summer 2023.

#### Tentative Project Plan

- Kickoff meeting
- Develop shared understanding of DEI
- Evaluate current DEI work
- Create DEI policy statement
- Create DEI strategic plan
- Develop metrics to assess DEI efforts
- Final report and presentation



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## **2023-25 Biennial Budget Adoption**

Board Regular Meeting

June 21, 2023

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## Tonight's Presentation

- Highlights of the Budget Process
- Summary of the CEO's direction
- Details of the Approved 2023-25 Biennial Budget
- Closing remarks and recommendations

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## Oregon Local Budget Process

### Requested Budget

- Management develops department-level requests

### Proposed Budget

- Budget officer prepares Proposed Budget for Budget Committee Action

### Approved Budget

- Budget Committee approves budget for consideration for Adoption

### Adopted Budget

- Board of Commissioners adopts budget and sets appropriations

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## 2023-25 Biennial Budget Process

- Budget Committee Tour – April 11, 2023
- Budget Committee Workshop No. 1 – April 18, 2023
- Budget Committee Workshop No. 2 – May 9, 2023
- Budget Committee Meeting – May 31, 2023
- Board Adoption of the District's 2023-25 Biennial Budget – Tonight

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## TVWD is in Transition

### Suburban Water Provider Phase

- Serve customers water purchased under wholesale contracts
- Manage a complex transmission and distribution system
- Prepare for the WWSP Construction Phase

### WWSP Construction Phase

- Serve customers water purchased under wholesale contracts
- Manage a complex transmission and distribution system
- Manage the construction of a \$1.6 billion program
- Prepare for the Regional Operations Phase

### Regional Operations Phase

- Serve customers water produced by WWSS/WIF
- Manage a complex transmission and distribution system
- Manage the newly created WIF and WWSS

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## Mission, Vision, and Values Statements

	Previous	Current
<b>Mission</b>	To Provide Our Community Quality Water and Customer Service	Reliable, resilient, and safe water
<b>Vision</b>	Delivering the Best Water, Service, Value	Our water sustains thriving communities —every day for everyone.
<b>Values</b>	Reliability, Integrity, Stewardship, Excellence, Safety	Respect, Integrity, Service, Equity

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## CEO Priorities for Management Staff

Human Investment	Intergovernmental Relations	Business Intelligence	Efficiency Through Modernization	Current Initiatives
<ul style="list-style-type: none"> <li>Prepare employees to be successful in meeting the future requirements of the District.</li> </ul>	<ul style="list-style-type: none"> <li>Improve relationships with local governments and neighboring utilities to solidify TVWD as a necessary and desired regional resource.</li> </ul>	<ul style="list-style-type: none"> <li>Improve planning and the District's ability to respond by developing actionable information from disparate sources of data.</li> </ul>	<ul style="list-style-type: none"> <li>Improve the service levels provided to our customers and find long-term strategies to lower the cost of doing so.</li> </ul>	<ul style="list-style-type: none"> <li>Successfully execute and complete the initiatives currently underway.</li> </ul>


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## Pursuing Financial Assistance


- Bureau of Reclamation (\$5 million)
- Potential matching from State

**AMI**




- FEMA/BRIC (Approximately \$11 million)

**Taylor's Ferry**



- Congressionally Directed Spending(CDS)/STAG Program (\$4 million)
- Potential future CDS/STAG
- Potential State lottery bonds

**WWSS**

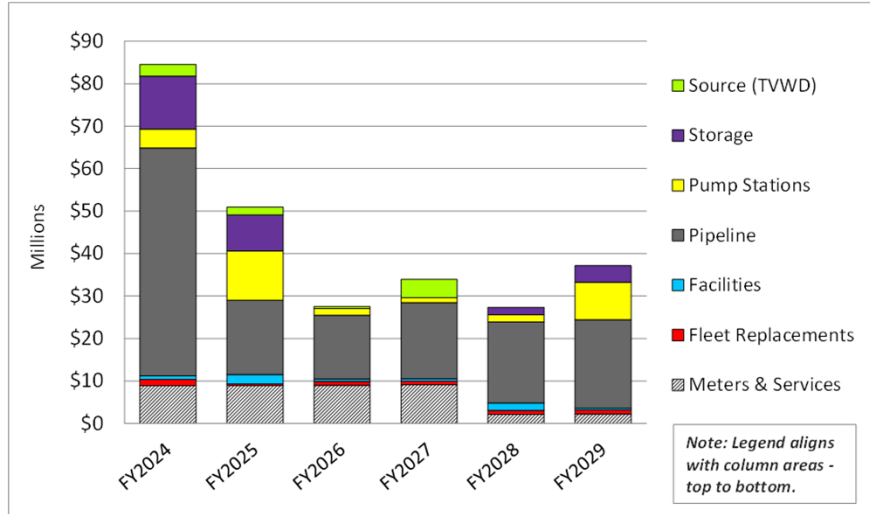


## Details of the Approved Budget

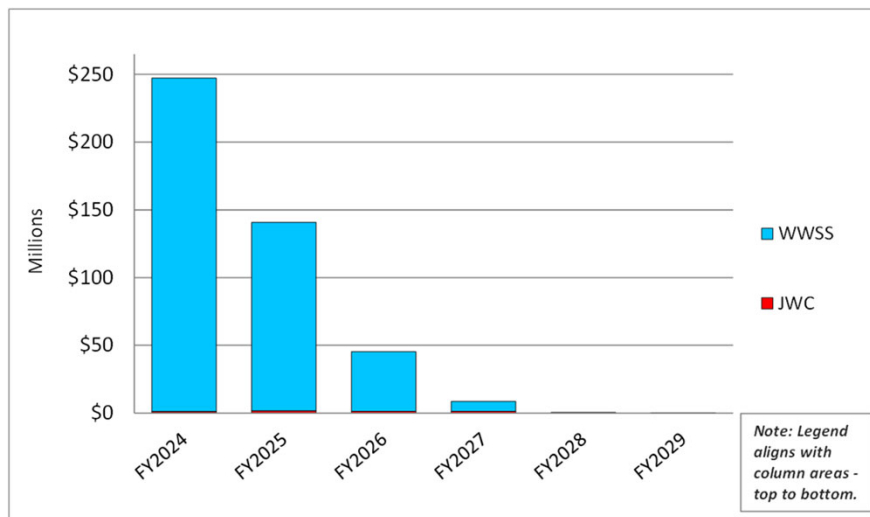
*Adoption of the 2023-25 Biennial Budget*

June 21, 2023

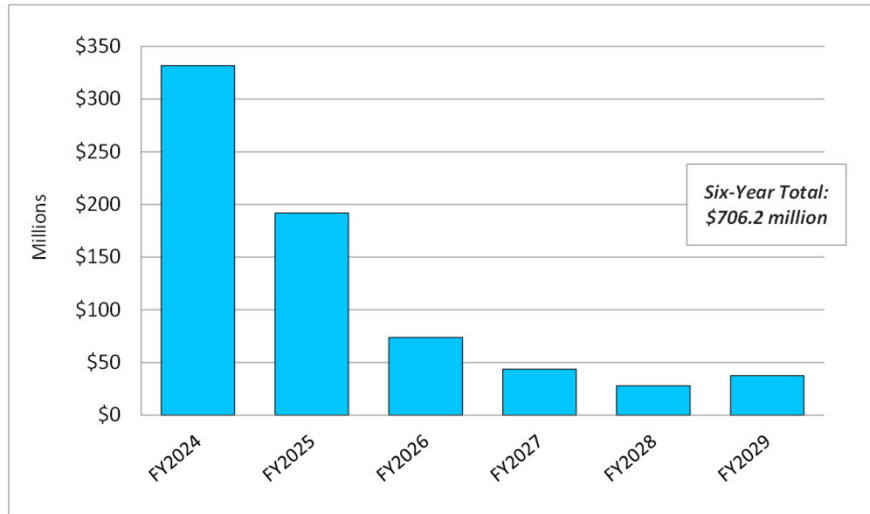
## Key Infrastructure Investments (In-District only)



## Key Infrastructure Investments (Joint Ventures)



## Key Infrastructure Investments (Total CIP)



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## TVWD's Fund Structure

Five Funds Directly Support the Water Utility	
<b>General Fund (01)</b>	Administration, operations, and maintenance activity. All District staff are budgeted in this fund. This fund is appropriated in this biennial budget.
<b>Capital Improvement Fund (11)</b>	Accounts for the resources and expenditures used for acquisition or construction of major capital facilities. This fund is appropriated in this biennial budget.
<b>Capital Reserve Fund (18)</b>	Holds resources for current and future capital improvement and water supply projects. This fund is appropriated in this biennial budget.
<b>Debt Proceeds Fund (22)</b>	Holds proceeds from the District's debt portfolio including the revenue bonds, WIFIA loan proceeds, and other types of borrowings. This fund is appropriated in this biennial budget.
<b>Revenue Bond Debt Service Fund (31)</b>	Accounts for repayment of principal and interest on the District's revenue bonds. This fund is appropriated in this biennial budget.

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## TVWD's Fund Structure (continued)

Four Funds Manage Partnerships	
<b>Willamette Water Supply System Fund - WWSS (45)</b>	An ORS chapter 190 Joint Venture with the cities of Beaverton, Hillsboro, and TVWD. TVWD serves as the managing agency providing administration, operations, project management and accounting services. This fund is appropriated in this biennial budget.
<b>Willamette Intake Facilities Fund - WIF (44)</b>	An ORS chapter 190 Joint Venture with the cities of Beaverton, Hillsboro, Sherwood, Tigard, Wilsonville, and TVWD. TVWD serves as the managing agency providing general administration, project management, and accounting services. This fund is appropriated in this biennial budget.
<b>Willamette River Water Coalition Fund - WRWC (41)</b>	An ORS chapter 190 Joint Venture with the cities of Sherwood, Tigard, Tualatin, and TVWD. TVWD serves as the managing agency providing general administration and accounting services. This fund is appropriated in this biennial budget.
<b>Customer Emergency Assistance Fund (43)</b>	Accounts for the resources, administration, and customer payments for those who qualify for emergency assistance. This fund is appropriated in this biennial budget.

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## General Fund

Description	2021-23 Budget	Approved Budget	Change	Percent Change	Annualized Percent
Personnel Services	\$ 42,330,036	\$ 50,095,791	\$ 7,765,755	18.3%	8.8%
Materials & Services	47,640,836	66,134,555	18,493,719	38.8%	17.8%
Capital Outlay	705,950	2,799,500	2,093,550	296.6%	99.1%
Special Payments	1,625,000	2,035,000	410,000	25.2%	11.9%
Interfund Transfers	83,500,000	127,341,737	43,841,737	52.5%	23.5%
Contingency	20,000,000	20,000,000	-	0.0%	0.0%
<b>Total</b>	<b>\$ 195,801,822</b>	<b>\$ 268,406,583</b>	<b>\$ 72,604,761</b>	<b>37.1%</b>	<b>17.1%</b>

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# General Fund

<b>Resources</b>	
TVWD	\$ 271,790,713
Other Resources	17,600,670
<b>Total Resources</b>	<b>\$ 289,391,383</b>
<b>Requirements</b>	
Personnel Services	\$ 50,095,791
Materials & Services	66,134,555
Capital Outlay	2,799,500
Special Payments	2,035,000
Interfund Transfers	127,341,737
Contingency	20,000,000
Unappropriated	20,984,799
<b>Total Requirements</b>	<b>\$ 289,391,383</b>

## Key Elements

- Builds capacity for future operations of the WWSS
- Approximately 25% increase in Purchase Water Costs
- Funds all personnel services for the District – including WWSP

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# Capital Improvement Fund

Description	2021-23 Budget	Approved Budget	Change	Percent Change	Annualized Percent
Personnel Services	\$ -	\$ -	\$ -	NA	NA
Materials & Services	-	-	-	NA	NA
Capital Outlay	379,582,670	523,589,659	144,006,989	37.9%	17.4%
Special Payments	-	-	-	NA	NA
Interfund Transfers	-	-	-	NA	NA
Contingency	-	-	-	NA	NA
<b>Total</b>	<b>\$ 379,582,670</b>	<b>\$ 523,589,659</b>	<b>\$ 144,006,989</b>	<b>37.9%</b>	<b>17.4%</b>

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## Capital Improvement Fund

### Key Elements

Resources	
TVWD	\$ 520,089,659
Other Partners	3,500,000
<b>Total Resources</b>	<b>\$ 523,589,659</b>
Requirements	
Materials & Services	\$ 0
Capital Outlay	523,589,659
Contingency	0
<b>Total Requirements</b>	<b>\$ 523,589,659</b>

- AMI
- Metzger Pipeline East (MPE)
- In-District investments
- Joint Ventures

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## Capital Reserve Fund

Description	2021-23 Budget	Approved Budget	Change	Percent Change	Annualized Percent
Personnel Services	\$ -	\$ -	\$ -	NA	NA
Materials & Services	-	-	-	NA	NA
Capital Outlay	-	-	-	NA	NA
Special Payments	-	-	-	NA	NA
Interfund Transfers	376,262,670	471,065,937	94,803,267	25.2%	11.9%
Contingency	-	-	-	NA	NA
<b>Total</b>	<b>\$ 376,262,670</b>	<b>\$ 471,065,937</b>	<b>\$ 94,803,267</b>	<b>25.2%</b>	<b>11.9%</b>

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## Capital Reserve Fund

Resources	
Beginning Balance	\$ 108,757,547
Interest Income	5,221,939
Contributions	12,483,366
Interfund Transfer	434,436,597
<b>Total Resources</b>	<b>\$ 560,899,449</b>
Requirements	
Interfund Transfer	\$ 471,065,937
Unappropriated	89,833,512
<b>Total Requirements</b>	<b>\$ 560,899,449</b>

### Key Elements

- Accounts for financial reserves
- Transfers to the District Capital Improvement Fund
- Resources include SDC revenues, meter & services install fees, interest earnings, transfers-in from other funds

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## Debt Proceeds Fund

Description	2021-23 Budget	Approved Budget	Change	Percent Change	Annualized Percent
Personnel Services	\$ -	\$ -	\$ -	NA	NA
Materials & Services	-	-	-	NA	NA
Capital Outlay	-	-	-	NA	NA
Special Payments	-	-	-	NA	NA
Interfund Transfers	226,500,000	363,460,319	136,960,319	60.5%	26.7%
Contingency	-	-	-	NA	NA
<b>Total</b>	<b>\$ 226,500,000</b>	<b>\$ 363,460,319</b>	<b>\$ 136,960,319</b>	<b>60.5%</b>	<b>26.7%</b>

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## Debt Proceeds Fund

<b>Resources</b>	
Beginning Balance	\$ 99,023,722
Interest Income	330,079
Bond Proceeds	264,106,518
<b>Total Resources</b>	<b>\$ 363,460,319</b>
<b>Requirements</b>	
Materials & Services	\$ 0
Interfund Transfer	363,460,319
Contingency	0
<b>Total Requirements</b>	<b>\$ 363,460,319</b>

### Key Elements

- Accounts for proceeds of borrowing
- Anticipated WIFIA draws during biennium
- Interfund transfers to the Capital Reserve Fund

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## Customer Emergency Assistance Fund

Description	2021-23 Budget	Approved Budget	Change	Percent Change	Annualized Percent
Personnel Services	\$ -	\$ -	\$ -	NA	NA
Materials & Services	531,035	319,875	(211,160)	-39.8%	-22.4%
Capital Outlay	-	-	-	NA	NA
Special Payments	-	-	-	NA	NA
Interfund Transfers	-	-	-	NA	NA
Contingency	-	-	-	NA	NA
<b>Total</b>	<b>\$ 531,035</b>	<b>\$ 319,875</b>	<b>\$ (211,160)</b>	<b>-39.8%</b>	<b>-22.4%</b>

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## Customer Emergency Assistance Fund

Resources		
Beginning Balance	\$	250,000
Donations & Interest		18,750
Transfers In		51,125
<b>Total Resources</b>	<b>\$</b>	<b>319,875</b>
Requirements		
Materials & Services	\$	319,875
Capital Outlay		0
<b>Total Requirements</b>	<b>\$</b>	<b>319,875</b>

### Key Elements

- Provides emergency relief to qualified customers
- Qualification provided by third party
- Sources of Funds:
  - Customer donations
  - Commissioners and staff
  - Budgeted funds
- Interest earnings remain within Fund

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## Willamette Water Supply System Fund

Description	2021-23 Budget	Approved Budget	Change	Percent Change	Annualized Percent
Personnel Services	\$ -	\$ -	\$ -	NA	NA
Materials & Services	2,343,405	2,698,100	354,695	15.1%	7.3%
Capital Outlay	452,289,650	651,226,029	198,936,379	44.0%	20.0%
Special Payments	-	-	-	NA	NA
Interfund Transfers	-	-	-	NA	NA
Contingency	235,000	269,000	34,000	14.5%	7.0%
<b>Total</b>	<b>\$ 454,868,055</b>	<b>\$ 654,193,129</b>	<b>\$ 199,325,074</b>	<b>43.8%</b>	<b>19.9%</b>

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## Willamette Water Supply System Commission

Resources	
TVWD	\$ 386,803,478
Other Partners	267,355,650
<b>Total Resources</b>	<b>\$ 654,159,129</b>
Requirements	
Materials & Services	\$ 2,698,100
Capital Outlay	651,226,029
Contingency	235,000
<b>Total Requirements</b>	<b>\$ 654,159,129</b>

### Key Elements

- Joint venture of TVWD, and the cities of Beaverton and Hillsboro
- TVWD serves as managing agency
- TVWD's share of operating expenses are budgeted in Administration Regional Partnerships
- The budget is set annually by the WWSS Commission Board
- Constructs and operates the Willamette Water Supply System

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## Willamette Intake Facilities Fund

Description	2021-23 Budget	Approved Budget	Change	Percent Change	Annualized Percent
Personnel Services	\$ -	\$ -	\$ -	NA	NA
Materials & Services	1,056,920	1,013,495	(43,425)	-4.1%	-2.1%
Capital Outlay	6,533,736	11,000	(6,522,736)	-99.8%	-95.9%
Special Payments	-	-	-	NA	NA
Interfund Transfers	-	-	-	NA	NA
Contingency	107,000	101,000	(6,000)	-5.6%	-2.8%
<b>Total</b>	<b>\$ 7,697,656</b>	<b>\$ 1,125,495</b>	<b>\$ (6,572,161)</b>	<b>-85.4%</b>	<b>-61.8%</b>

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## Willamette Intake Facilities Commission

Resources	
TVWD	\$ 444,383
Other Partners	681,112
<b>Total Resources</b>	<b>\$ 1,125,495</b>
Requirements	
Materials & Services	\$ 1,013,495
Capital Outlay	11,000
Contingency	101,000
<b>Total Requirements</b>	<b>\$ 1,125,495</b>

### Key Elements

- Joint venture of TVWD, and cities of Beaverton, Hillsboro, Sherwood, Tigard, and Wilsonville
- TVWD serves as managing agency
- TVWD's share of operating expenses are budgeted in Administration Regional Partnerships
- The budget is set annually by the WIF Commission Board
- Constructs and operates the Willamette Intake Facilities on the Willamette River

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## Willamette River Water Coalition Fund

Description	2021-23 Budget	Approved Budget	Change	Percent Change	Annualized Percent
Personnel Services	\$ -	\$ -	\$ -	NA	NA
Materials & Services	114,300	279,300	165,000	144.4%	56.3%
Capital Outlay	-	-	-	NA	NA
Special Payments	-	-	-	NA	NA
Interfund Transfers	-	-	-	NA	NA
Contingency	11,650	27,900	16,250	139.5%	54.8%
<b>Total</b>	<b>\$ 125,950</b>	<b>\$ 307,200</b>	<b>\$ 181,250</b>	<b>143.9%</b>	<b>56.2%</b>

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# Willamette River Water Coalition

## Key Elements

<b>Resources</b>		
TVWD	\$	137,626
Other Partners		169,574
<b>Total Resources</b>	\$	307,200
<b>Requirements</b>		
Materials & Services	\$	279,300
Capital Outlay		0
Contingency		27,900
<b>Total Requirements</b>	\$	307,200

- Joint venture of TVWD, and cities of Sherwood, Tigard, and Tualatin
- TVWD serves as the managing agency
- TVWD’s dues are budgeted in Regional Partnerships
- The WRWC budget is set annually by its governing board
- Primarily focused on water rights on the Willamette River

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## Appropriations Summary - Approved 2023-25 Biennial Budget

	2021-23 Biennial Adopted Budget	2023-25 Biennial Approved Budget	% Change from 2021-23 Biennial
<b>Sources of Funds</b>			
Operating Revenue	\$ 180,495,611	\$ 243,881,950	35.1%
Non-Operating Revenue	472,586,886	670,849,588	42.0%
<b>Total Revenues:</b>	<b>\$ 653,082,497</b>	<b>\$ 914,731,538</b>	<b>40.1%</b>
Transfers In From Other Funds	686,262,670	961,867,993	40.2%
Debt Resources	226,500,000	264,106,518	
Beginning Fund Balances	93,893,898	259,873,626	176.8%
<b>Total Sources</b>	<b>\$ 1,659,739,065</b>	<b>\$ 2,400,579,675</b>	<b>44.6%</b>
<b>Uses of Funds</b>			
Personnel Services	\$ 42,330,036	\$ 50,095,791	18.3%
Materials and Services	51,686,496	70,445,325	36.3%
Capital Outlay	839,112,006	1,177,626,187	40.3%
Debt Service	-	7,290,612	N/A
Special Payments	1,625,000	2,035,000	25.2%
Contingency	20,353,650	20,397,900	0.2%
Transfers Out To Other Funds	686,262,670	961,867,993	40.2%
<b>Total Appropriations:</b>	<b>\$ 1,641,369,858</b>	<b>\$ 2,289,758,809</b>	<b>39.5%</b>
Ending Fund Balances	18,369,207	110,820,866	503.3%
<b>Total Uses</b>	<b>\$ 1,659,739,065</b>	<b>\$ 2,400,579,675</b>	<b>44.6%</b>

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# Summary

## 2023-25 Challenges

- Building capacity to operate the WWSS/WIF
- Continuing large infrastructure investments
- Pursuing financial assistance

## Approved 2023-25 Budget

- Funds initiatives based on strategic plan
- Maintains current service levels with limited additions for strategic initiatives
- Recognizes impact of pandemic on customers by funding bad debt expense and newly proposed Customer Assistance Program
- Funds District's infrastructure investments
- Funds District transition to managing agency for the WWSS and WIF

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# Management Recommendation

## Adopt Resolution 08-23

- Adopting the 2023-25 Biennial Budget
- Making appropriations for 2023-25 biennium

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## CONSENT AGENDA

- A. Approve the May 17, 2023, regular meeting minutes.
- B. Approve the June 6, 2023 work session meeting minutes.
- C. Approve the May 31, 2023 Budget Committee meeting minutes.
- D. Authorize the Board President to sign the certification of election results for the May 16, 2023 Special District Election.

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## Financial Plan and Rate Process Update

*Regular Board Meeting*  
Paul Matthews, Chief Financial Officer

June 21, 2023



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## Overview of Presentation



### Financial Plan Update

- Financial Strategy
  - Original presented in March regular meeting
- Rate Strategies
  - Three alternatives achieve same goals and objectives



### Rate Process Update

- Based on guidance from Board
- Public outreach plan to include:
  - Open houses
  - Public hearing

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## Management's Concern Remain the Same

### Risks

- Significant risk that future rate increases could be higher than planned
- Economy may go into recession
- Interest rate environment may increase financing costs
- Collections continue to be challenging
- Some construction risk remains

### Recommendation

- Continue to build financial capacity
- Continue to manage expenditures carefully
- Adopt rates that provide financial resources in advance
- Implement new customer assistance program
- Continue to pursue federal and state assistance

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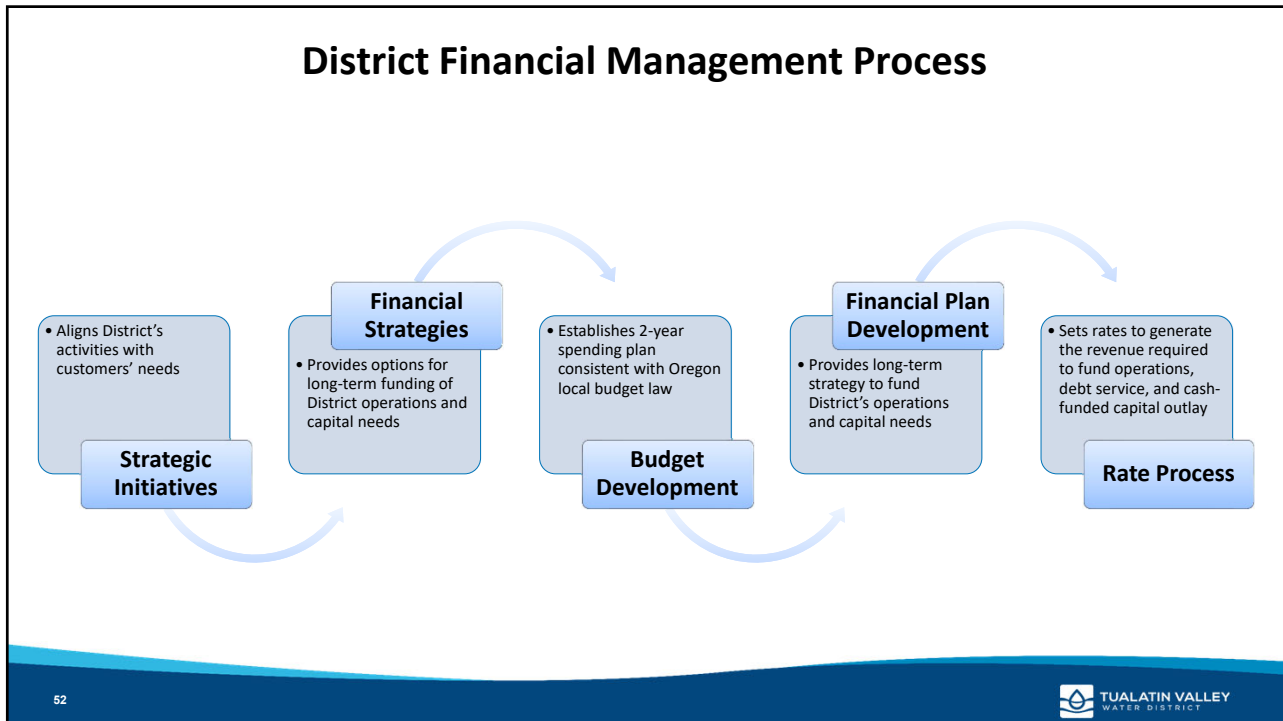


# Financial Plan Update

**Board Regular Meeting**  
June 21, 2023



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### Baseline Assumptions for Financial Strategy and 2023-25 Budget

Description	Increase	Timing of Impact
Portland Water Bureau	26.1%	First-year, ongoing.
JWC	8.3%	First-year, ongoing.
Existing Staff	13.8%	Biennium, ongoing.
WWSS		
Project Cost Increases	\$200 Million	One-time with WWSS.
Integration Planning	\$6.3 million	One-time with WWSS.
Pumping Power	24.8%	Biennium, ongoing.

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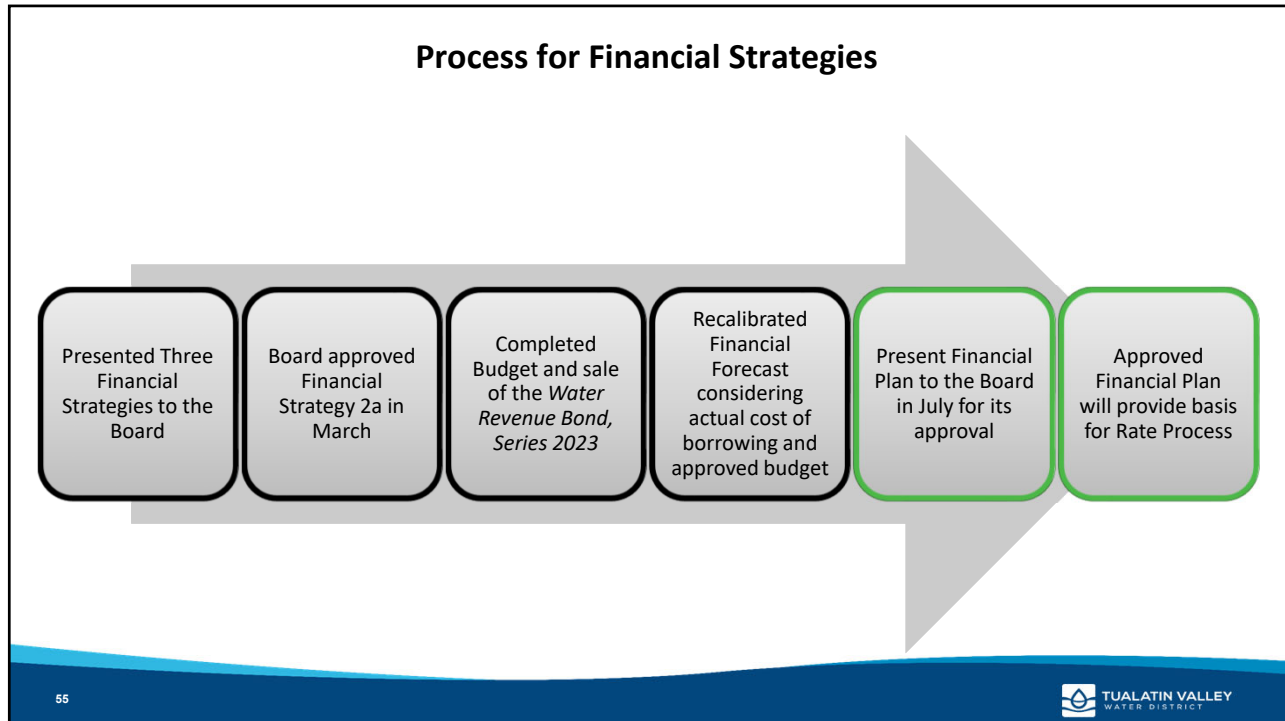
### Key New Costs in Financial Strategy and 2023-25 Budget

Description
AMI
New Staffing
Customer Assistance

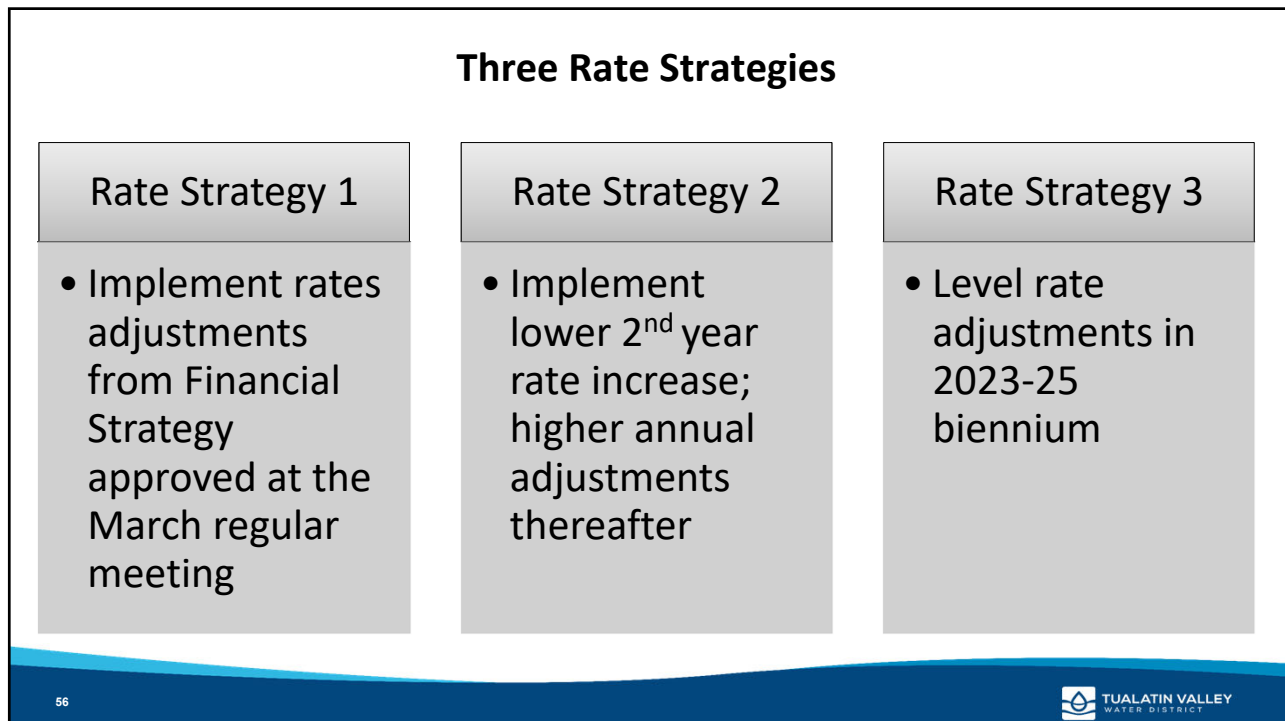
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## Customer Impacts of Alternative Rate Strategies

Rate Adjustments [1]	FY2024	FY2025	FY2026	FY2027	FY2028
Rate Strategy 1	22.0%	17.5%	3.25%	3.25%	3.25%
Rate Strategy 2	22.0%	9.0%	6.0%	3.75%	3.75%
Rate Strategy 3	17.5%	17.5%	6.5%	3.4%	3.4%

[1] Rate adjustments projected for Nov. 1 of each fiscal year (i.e., on 11/1/2023 for FY2024).

Typical Monthly Bill [2]	FY2024	FY2025	FY2026	FY2027	FY2028
Rate Strategy 1	\$85.96	\$101.00	\$104.29	\$107.68	\$111.18
Rate Strategy 2	\$85.96	\$93.70	\$99.32	\$103.04	\$106.91
Rate Strategy 3	\$82.79	\$97.28	\$103.60	\$107.12	\$110.77

[2] Current typical bill = \$70.46 per month.

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## Debt Financing and Net Leverage of Alternatives

- Each alternative includes an assumed bond issuance of \$130 million in FY2025.

Net Leverage Ratios	FY2024	FY2025	FY2026	FY2027	FY2028
Rate Strategy 1	8.04	7.45	6.54	5.89	5.51
Rate Strategy 2	8.04	7.93	7.32	6.55	6.20
Rate Strategy 3	8.33	7.96	6.87	6.06	5.69

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## Discussion Points

### Potential Considerations

- Rate strategies 1 and 2 can be altered next year as forecasted information gives way to actual results
- Rate strategy 3 may increase the risk of higher rate increases next year
- In the long term, each rate strategy has similar impact on our customers

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## Discussion and Guidance

*2023-25 Rate Strategies*

**Board Regular Meeting**

June 21, 2023



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## Rate Process Update

Board Regular Meeting  
June 21, 2023



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### Requirements for Adjusting Water Rates

#### Legal Requirements

- Mail post card to customers notifying them of public hearing when rate adjustments will be considered
- Hold public hearing

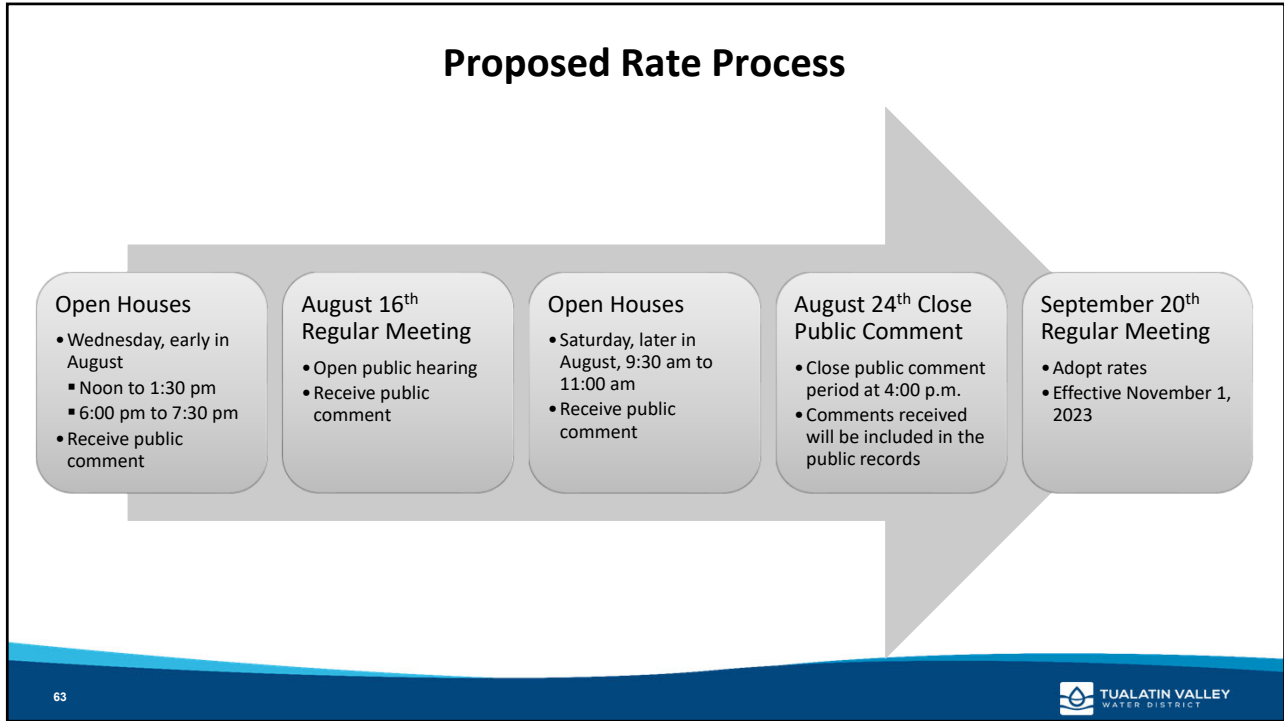
#### Best Practices

- Open houses to inform customers of basis for rate adjustments
- Easier way for customers to provide comments to the Board that are include in public record


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## Discussion and Guidance

### *Proposed Rate Process*

### Board Regular Meeting

June 21, 2023



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**Report of Meetings Attended**

**Commissioner Doane**

Date	Meeting or Function	Purpose	\$	Claimed
6/21	Regular Meeting		50	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6/6	Work Session		50	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5/31	Budget		0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5/24	AMR/Risk		50	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

OK to pay \$150.00 to CEAF - SK

Date: 21 June 2023

Requested by: Jim Doane

Commissioner

Date: \_\_\_\_\_

Approved by: \_\_\_\_\_

President





**Report of Meetings Attended**

**Commissioner Jim Duggan**

Date	Meeting or Function	Purpose	\$	Claimed
5/24/2023	Talkin' Water: Spring Irrigation	Webinar	-	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5/24/2023	Thermal Trading Plan Update	On-going concerns	50	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5/31/2023	TVWD Budget Committee Mtg.	Budget Com. Adoption	-	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6/01/2023	WWSS Board Mtg. & Exec. Sess.	Regular Bi-Monthly Mtg.	50	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6/06/2023	TVWD Board Work Session	Financial, WWSP Update	50	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6/07/2023	RWPC Board Meeting	Regular 1/3 Yr. Mtg.	50	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6/12/2023	Wash. Co. Public Affairs Forum	Beaverton Public Works	50	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6/13/2023	TVWD Agenda Planning Mtg.	Staff Updates	50	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6/21/2023	TVWD Board Meeting	Regular Monthly Mtg.	50	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
				<input type="checkbox"/> Yes <input type="checkbox"/> No

OK to pay \$350.00 - SK

Date: 06/21/2023

Requested by: James. J. Duggan

Commissioner

Date: \_\_\_\_\_

Approved by: \_\_\_\_\_

President





**Report of Meetings Attended**

**Commissioner** Fisher

Date	Meeting or Function	Purpose	\$	Claimed
5/25	WEA Mayors Forum	Hear presentations from mayors from around Washington County	50	<input type="checkbox"/> Yes <input type="checkbox"/> No
5/31	Budget Meeting	Recommend Budget to Board	50	<input type="checkbox"/> Yes <input type="checkbox"/> No
6/15	Town Hall with Commissioner Nafisa Fai	To learn about issues in Aloha	50	<input type="checkbox"/> Yes <input type="checkbox"/> No
5/24	Meet Up with Mayor of Tigard	Chance to share and hear updates with Mayor of Tigard.	50	<input type="checkbox"/> Yes <input type="checkbox"/> No
6/21	TVWD Board Meeting	Regular board meeting	50	<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

Date: 6/21/23

Requested by: Carl Fisher  
Commissioner

OK to pay \$250.00 to CEAF- SK

Date: \_\_\_\_\_

Approved by: \_\_\_\_\_  
President





**Report of Meetings Attended**

Commissioner Lisac

Date	Meeting or Function	Purpose	\$	Claimed
5/31/2023	Budget Committee Meeting	Approved budget	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6/6/2023	TVWD Board Work Session	Monthly billing, AMI, WWSS update	50	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6/13/2023	Meeting with Kylie Bayer	Telework policy discussion	50	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6/21/2023	TVWD Board Meeting	June meeting	50	<input checked="" 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

Date: 6/21/2023

Requested by: Elliot Lisac

OK to pay \$150.00 - SK

Commissioner

Date: \_\_\_\_\_

Approved by: \_\_\_\_\_

President



**From:** [Todd Sanders](#)  
**To:** [Sam Kaufmann](#)  
**Subject:** Re: June Meetings Attended for Fisher, Duggan, Doane and Lisac  
**Date:** Friday, June 30, 2023 9:16:42 AM  
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new\_nextdoor\_logo36px(002)blue\_be1e9d64-a878-4c1e-975a-1b7d7ff12e00.png

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I approve.

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**Todd Sanders**  
TVWD Commissioner  
[Todd.Sanders@tvwd.org](mailto:Todd.Sanders@tvwd.org)



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WATER DISTRICT



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**From:** Sam Kaufmann <[Sam.Kaufmann@tvwd.org](mailto:Sam.Kaufmann@tvwd.org)>  
**Sent:** Wednesday, June 28, 2023 4:58:56 PM  
**To:** Todd Sanders <[Todd.Sanders@tvwd.org](mailto:Todd.Sanders@tvwd.org)>  
**Subject:** June Meetings Attended for Fisher, Duggan, Doane and Lisac

Hi Todd,

Do you approve of the attached meetings attended forms for Commissioners Doane, Duggan, Fisher and Lisac?

**Sam Kaufmann**  
District Recorder  
[Sam.Kaufmann@tvwd.org](mailto:Sam.Kaufmann@tvwd.org)



TUALATIN VALLEY  
WATER DISTRICT



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**Report of Meetings Attended**

**Commissioner Todd Sanders**

Date	Meeting or Function	Purpose	\$	Claimed
5/22	Tom Hickman & CFM	Legislative activities	50	X Yes No
5/23	Phone calls with WSWD Board Chair	Discuss request for purchased water and possible merger	50	x Yes <input type="checkbox"/> No
5/24	Tom Hickman & leadership team	Thermal trading plan discussion	50	X Yes No
5/30	Tom Hickman & CFM	Legislative activities	50	x Yes <input type="checkbox"/> No
5/31	Budget Committee Meeting	Approve Budget committee recommendation		Yes X No
6/2	Phone Calls	HR discussions	50	x Yes <input type="checkbox"/> No
6/5	Tom Hickman & CFM	Legislative activities	50	x Yes <input type="checkbox"/> No
6/6	Work Session	Monthly work session	50	x Yes <input type="checkbox"/> No
6/12	CFM	Legislative activities	50	x Yes <input type="checkbox"/> No
6/13	Agenda planning meeting	Set Board meeting agenda	50	X Yes <input type="checkbox"/> No
6/14	Board Meeting Agenda items phone calls	Agenda items	50	X Yes <input type="checkbox"/> No
6/15	Board Meeting Agenda items phone calls	Setting final agenda items	50	X Yes <input type="checkbox"/> No
6/20	Willamette River Water Coalition	Regularly scheduled meeting	50	X Yes <input type="checkbox"/> No
6/21	Monthly board meeting	Approve budget for 23-25	50	X Yes <input type="checkbox"/> No

Date: 06/22/2023

Requested by: Todd Sanders  
Commissioner

OK to pay \$650.00 - SK

Date: \_\_\_\_\_

Approved by: \_\_\_\_\_

**From:** [JAMES DOANE](#)  
**To:** [Sam Kaufmann](#)  
**Cc:** [Todd Sanders](#)  
**Subject:** Re: June meetings attended approval  
**Date:** Wednesday, June 28, 2023 6:55:43 PM  
**Attachments:** [2\\_sm\\_fb\\_873ac953-8b59-4ccc-8d7c-a4dc8743f7bc.png](#)  
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i approve payment for Todd's meetings.  
Jim Doane

On 06/28/2023 16:59 PDT Sam Kaufmann <[sam.kaufmann@tvwd.org](mailto:sam.kaufmann@tvwd.org)> wrote:

Hi Jim,

Do you approve of the attached meetings attended sheet for Commissioner Sanders?

**Sam Kaufmann**  
District Recorder  
[Sam.Kaufmann@tvwd.org](mailto:Sam.Kaufmann@tvwd.org)



TUALATIN VALLEY  
WATER DISTRICT



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# TUALATIN VALLEY

WATER DISTRICT

**Date:** July 19, 2023  
**To:** Board of Commissioners  
**From:** Kylie Bayer, Human Resources Director  
**Subject:** Repealing current COVID-19 Resolutions

**Requested Board Action:**

Consider issuing Resolution 09-23 to repeal Resolutions 08-20 and 09-21.

**Key Concepts:**

- Resolution 09-21 requires TVWD employees obtain a COVID-19 vaccine. Employees with a sincerely held religious belief or a disability may be exempted from this requirement.
- Nearly 90% of TVWD employees have been vaccinated.
- Federal and State emergency declarations regarding COVID-19 have been lifted.
- Oregon Occupational Safety and Health (OSHA) suspended their rules regarding COVID-19 workplace risks.

**Background:**

In addition to reviewing changes to Federal and State COVID-19 rules, the HR Division analyzed the impact of the District's COVID-19 vaccination requirement. The vaccine requirement was originally issued to keep employees as healthy and safe as possible while limiting the burden on our healthcare system. The District's vaccine program has been successful with District employees achieving a near 90% vaccination rate. Even with a significant number of vaccinated employees, the District continues to see employees contract COVID-19.

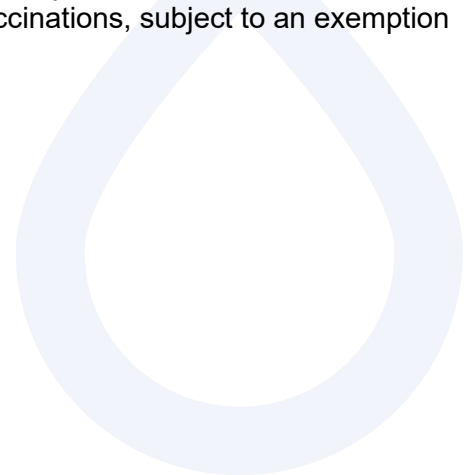
Best practices in recruitment call for removing as many barriers as possible. Qualified candidates have withdrawn from District recruitments due to the COVID-19 vaccine requirement. Many employers have approached COVID-19 vaccines with educational campaigns encouraging employees to obtain the recommended COVID-19 vaccines and boosters. The District intends to offer COVID-19 vaccines in addition to flu shots this fall and will continue to encourage employees to obtain COVID-19 vaccines and boosters and to obtain an annual flu shot.

Staff recommend the Board issue Resolution 09-23 to repeal Resolution 08-20, which vested the CEO with emergency powers prepare for, prevent, and mitigate the effects of COVID-19 in conjunction with Federal, State, and local public health emergency management so long as an emergency declaration was in effect, and Resolution 09-21, which mandated District employees obtain COVID-19 vaccinations, subject to an exemption process, and that the CEO implement a COVID-19 testing plan.

**Budget Impact:**

There is no budget impact associated with adoption of Resolution 09-23.

**Staff Contact Information:**





Kylie Bayer, HR Director  
kylie.bayer@tvwd.org  
503-577-1935

**Attachments:** Proposed Resolution 09-23

**Leadership Team Initials:**

Chief Executive Officer	GRH	Customer Service Manager	AC
Chief Operating Officer	N/A	IT Services Director	TB
Chief Financial Officer	N/A	Human Resources Director	AB
General Counsel	CB	Water Supply Program Director	N/A





**TUALATIN VALLEY**  
WATER DISTRICT

## RESOLUTION NO. 09-23

### A RESOLUTION REPEALING COVID RELATED RESOLUTIONS 08-20 AND 09-21

WHEREAS, the Board of Commissioners adopted Resolution 08-20 on March 18, 2020 and Resolution 09-21 on August 18, 2021 containing measures in response to COVID for the well-being, health, and safety of the employees and citizens of Tualatin Valley Water District; and

WHEREAS, Resolution 08-20 vested the Chief Executive Officer with emergency powers to prepare for, prevent, and mitigate the effects of COVID in conjunction with federal, State, and local public health emergency management so long as an emergency declaration was made by State of Oregon or Washington County officials; and

WHEREAS, Resolution 09-21 was a mandate by the Board of Commissioners that current employees obtain vaccinations, subject to an exemption process, and that the Chief Executive Officer implement a testing plan; and

WHEREAS, the emergency declarations from the State of Oregon and Washington County have expired and it appears the need for these resolutions and mandated activities no longer exists and being advised.

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

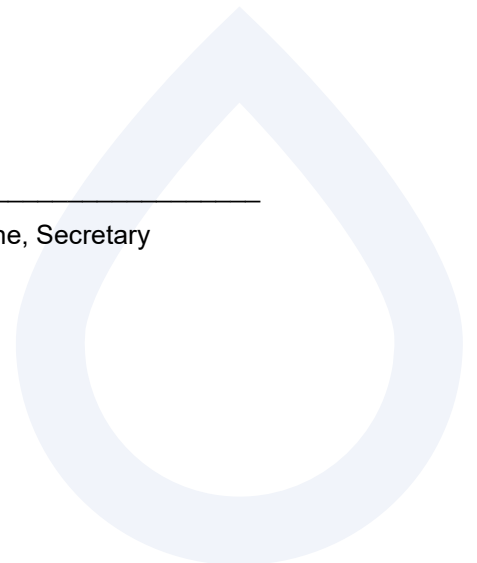
Section 1: Resolution 08-20 and Resolution 09-21 are hereby repealed.

Section 2: The Chief Executive Officer is directed to review and remove all District employment policies, operations, and practices that were created to implement these Resolutions.

Approved and adopted at a regular meeting held on the 19<sup>th</sup> day of July 2023.

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

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





# TUALATIN VALLEY

WATER DISTRICT

**Date:** July 19, 2023  
**To:** Board of Commissioners  
**From:** Clark Balfour, General Counsel  
**Subject:** Local Contract Review Board Resolution 10-23

**Requested Board Action:**

Adopt Local Contract Review Board (LCRB) Resolution 10-23 repealing LCRB Resolution 07-20.

**Key Concepts:**

- As part of COVID response, the Board adopted LCRB Resolution 07-20 to enable emergency contracting powers.
- The emergency declarations by the federal government, State of Oregon and Washington County have lapsed so that the need for special emergency contracting powers are no longer necessary.
- Adoption of Resolution 10-23 will remove the special COVID related powers vested in the CEO and return the District to the currently adopted Local Contract Review Board Rules (LCRB Rules).

**Background:**

Pursuant to statute, in the 1980's the Board appointed itself as the Local Contract Review Board for the District and adopted contracting rules. The Local Contract Review Board Rules have been amended from time to time by Board action. The CEO is designated as the Public Contracting Officer to implement procurement in accordance with State law and the LCRB Rules. The LCRB Rules provide for selection and award processes depending on the goods or services sought, the amount to be paid and other fundamental contracting matters. There are provisions for special procurements and emergency purchases.

On March 18, 2020, the Board, acting as the LCRB, adopted LCRB Resolution 07-20. This resolution recognized that COVID may have additional and unforeseen impacts on the District's ability to procure goods or services in a timely or cost-effective manner. The Board granted additional emergency powers to the CEO so that District procurements would not be delayed.

The Board also adopted Resolution 08-20 at the same meeting wherein an emergency was declared that coincided with the emergency declarations of the federal government, State of Oregon and Washington County. Those declarations have now lapsed. Also, on this July 19 agenda is repeal of Resolution 08-20.

With the lapse of the emergency declarations, staff recommends the LCRB repeal the special emergency powers of LCRB Resolution 07-20.

**Budget Impact:**

None

**Staff Contact Information:**

Clark Balfour; General Counsel; 503-848-3061; [clark.balfour@tvwd.org](mailto:clark.balfour@tvwd.org)



**Attachments:**

Proposed resolution 10-23

**Leadership Team Initials:**

Chief Executive Officer	JRH	Customer Service Manager	N/A
Chief Operating Officer	N/A	IT Services Director	N/A
Chief Financial Officer	N/A	Human Resources Director	N/A
General Counsel	CS	Water Supply Program Director	N/A





**TUALATIN VALLEY**  
WATER DISTRICT

## RESOLUTION NO. 10-23

A RESOLUTION OF THE LOCAL CONTRACT REVIEW BOARD REPEALING COVID RELATED RESOLUTION 07-20.

WHEREAS, the Board of Commissioners, acting as the Local Contract Review Board (LCRB), adopted Resolution 07-20 on March 18, 2020, adopting contracting measures in response to COVID for the well-being, health and safety of the employees and citizens of Tualatin Valley Water District; and

WHEREAS, Resolution 07-20 vested the Chief Executive Officer with emergency powers to contract for supplies and services as the CEO determined necessary to prepare for, prevent and mitigate the effects of COVID to contracting, supply chain delays and other impacts to the operations and functions of the District; and

WHEREAS, Resolution 07-20 was intended to coincide with the emergency declarations from the State of Oregon, Washington County and the District, which have expired and it appears the need for this emergency LCRB Resolution no longer exists and being advised.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COMMISSIONERS OF THE TUALATIN VALLEY WATER DISTRICT ACTING AS THE LOCAL CONTRACT REVIEW BOARD THAT:

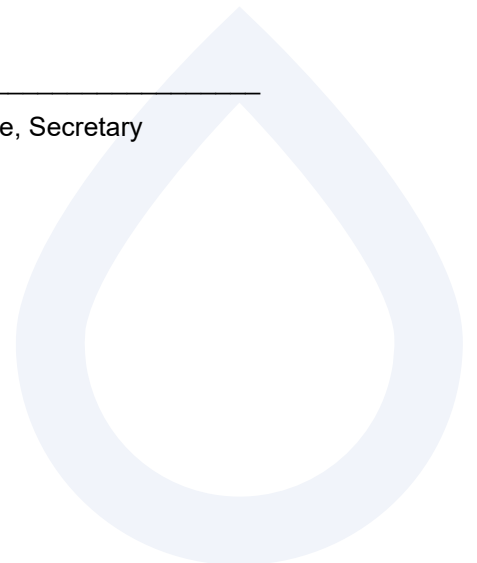
Section 1: Resolution 07-20 is hereby repealed.

Section 2: All actions of the Chief Executive Officer taken pursuant to Resolution 07-20 are ratified and affirmed.

Approved and adopted at a regular meeting held on the 19th day of July 2023.

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

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





# TUALATIN VALLEY

## WATER DISTRICT

**Date:** July 19, 2023  
**To:** Board of Commissioners  
**From:** Paul L. Matthews, Chief Financial Officer  
**Subject:** Approval of the District's 2023-25 Financial Plan

### **Requested Board Action:**

Consider adopting Resolution 11-23, approving the District's Financial Plan for the 2023-2025 biennium.

### **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.
- At various public meetings, management provided the Board information to assess risks and benefits of various capital and operational plans. This process culminated in the Board's March 15, 2023 regular meeting where management presented three financial strategies to the Board. By adopting Resolution 04-23, the Board approved the District's Financial Strategy which provided management the guidance it needed to develop the proposed 2023-25 Financial Plan.
- Management has prepared the detailed proposed Financial Plan that supports the Board-approved Financial Strategy. Management will present the proposed Financial Plan and answer questions and address concerns.
- Staff requests the Board approve the 2023-25 Financial Plan by resolution.

### **Background:**

One of the Board of Commissioners key responsibility is the oversight of the financial management of the District. To provide this important oversight, the Board of Commissioners has provided guidance to management to prepare the District's 2023-25 Financial Plan consistent with the requirements of the District's Financial Management Policies. Management has prepared the proposed Financial Plan for the 2023-25 biennium and requests the Board approve that Proposed Financial Plan.

Management has engaged the Board in several discussions throughout the year to develop guidance for the District's Financial Plan. At its regular meeting on March 15, 2023, the Board adopted Resolution 04-23, establishing 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 Willamette Water Supply System (WWSS) and Willamette Intake Facilities (WIF). 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 it has on the District's customers. In addition, the Financial Strategy carefully considers the construction risk and other risks

of the WWSS and WIF. The Financial Strategy, and the proposed Financial Plan, balance these risks to align with the Board's guidance.

Specifically, the proposed Financial Plan accelerates increases in water rates to reduce the risk of future rate shock for customers and/or financially driven cost increases that could result from a lack of 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. The proposed Financial Plan is the fourth formal Financial Plan that management has proposed consistent with the Financial Management Policies.

Management will present the proposed Financial Plan, the anticipated rates, estimated impacts on customers, 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 11-23

**Leadership Team Initials:**

Chief Executive Officer	TRH	Customer Service Manager	AC
Chief Operating Officer	N/A	IT Services Director	TB
Chief Financial Officer	Pon	Human Resources Director	N/A
General Counsel	CB	Water Supply Program Director	N/A





**TUALATIN VALLEY**  
WATER DISTRICT

## RESOLUTION NO. 11-23

A RESOLUTION APPROVING THE DISTRICT'S FINANCIAL PLAN FOR THE 2021-2023 BIENNIUM.

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, 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 March 15, 2023 regular meeting, the Board adopted Resolution 04-23 establishing the District's Financial Strategy which provided management guidance that balances risks, costs and benefits to allow the preparation of the proposed Financial Plan for the 2023-2025 biennium.

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

Section 1: The 2023-2025 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 19<sup>th</sup> day of July 2023.

---

Todd Sanders, President

---

Jim Doane, Secretary





# Exhibit 1



**TUALATIN VALLEY**  
WATER DISTRICT

## 2023-2025 Financial Plan



Proposed July 19, 2023

1850 SW 170th Ave., Beaverton, OR 97003  
Phone: (503) 848-3000  
[www.TVWD.org](http://www.TVWD.org)

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# 1 Introduction

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Tualatin Valley Water District (TVWD or *District*) serves about 60,670 accounts in parts of Washington County, Oregon. The District's service area is about 41 square miles, home to approximately 224,600 people in portions of the cities of Beaverton, Hillsboro, Tigard, and unincorporated Washington County. In the fiscal year ended June 30, 2022 (FY2022), the District supplied an average of 21.2 million gallons of water per day (MGD) to its customers. The daily amounts ranged from a minimum of approximately 14.5 million gallons (MG) to a peak day of 40.4 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 759 miles of pipe, ranging in size from 2 to 60 inches. Fourteen 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 June 2023. 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., FY2024-FY2033). 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 and Inflationary Pressure on Capital and Operating Expenditures

---

Although the COVID-19 pandemic is behind us, the effects of the COVID-19 pandemic are still felt in 2023 and the District continues to monitor its revenues, expenses, and collections to anticipate potential impacts on the District’s financial performance. As the District moves into the 2023-2025 biennium, its ability to plan for market-driven impacts will become a central focus. The next two years will be the peak spending period for the WWSP, with planned costs pushed significantly higher over the last eighteen

---

<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.



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 2023 Revenue Bonds

On May 31, 2023, the District completed its issuance of the *Water Revenue Bonds, Series 2023* (2023 Bonds). The 2023 Bonds provided the District approximately \$82.2 million to fund its capital investments. Of that \$82.2 million, approximately \$55.0 reimbursed the District for its past expenditures for the WWSP and in-District capital outlays. The remaining available funds are anticipated to be spent on the WWSP and other District improvements over the next 18 months.

The District anticipates securing approximately \$120 million of additional capital for its investments through an additional WIFIA loan, publicly offered revenue bonds, or a combination of both. The ultimate decision of the nature and timing of future debt will depend on several factors including prevailing interest rates, available terms, and cash-flow needs of the District.

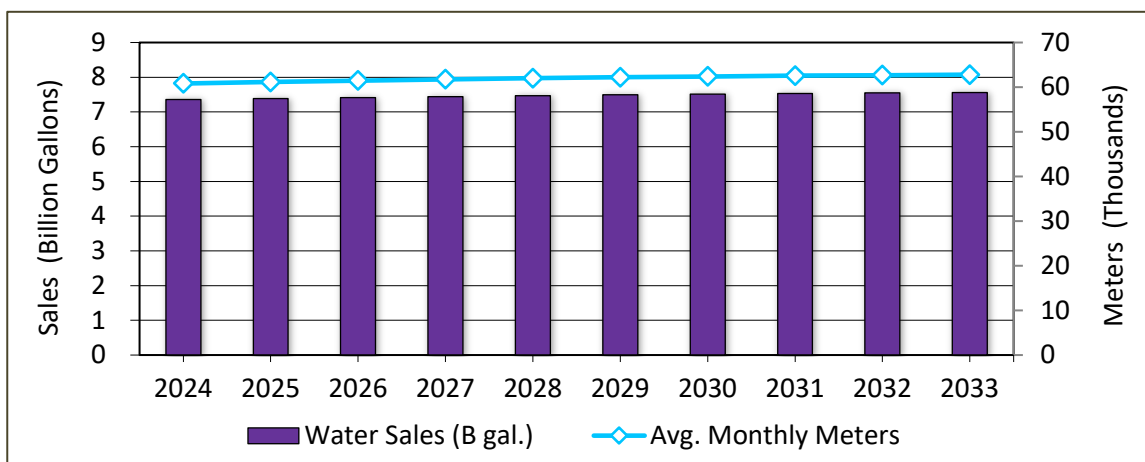
## 1.3 Financial Plan Section Descriptions and Highlights

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.

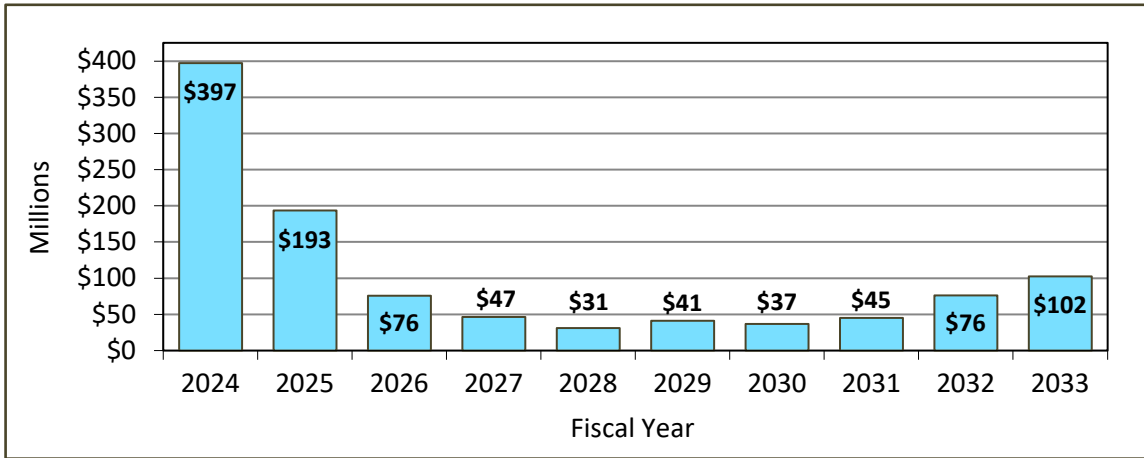
**SECTION 3 – WATER SALES PROJECTIONS.** This section describes the District’s water sales forecast and the data used in the preparation of this Financial Plan. Figure 1-1 presents projected annual water sales and average meters served.

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 \$1.05 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, FY2024-FY2028)

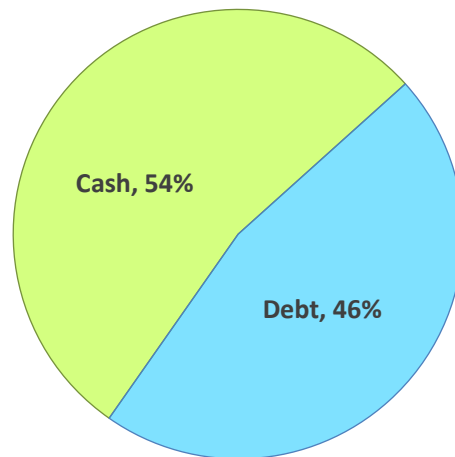
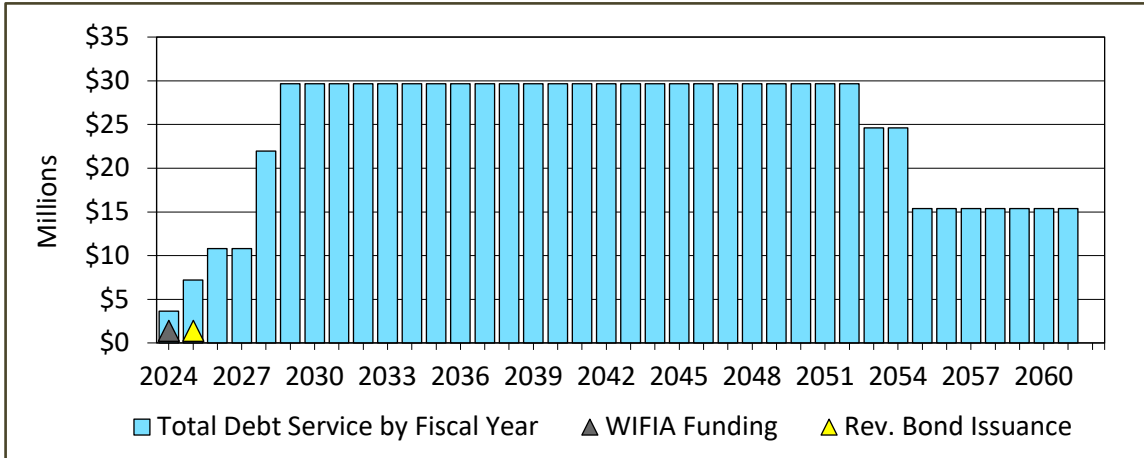


Figure 1-4: Projected Debt Repayments (Total Debt Service on WIFIA and Revenue Bonds)



**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. 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

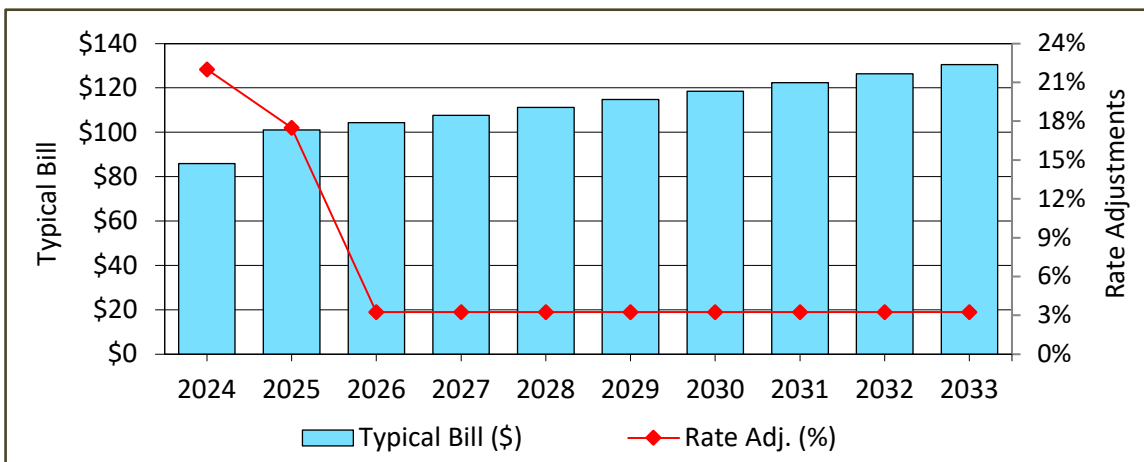


Figure 1-6 below shows that projected debt service coverage (DSC)<sup>6</sup> will exceed the District’s target minimum of 2.0x for the foreseeable future. Note that Figure 1-6 presents ten years of results beginning with FY2026 instead of FY2024. This is to show projected DSC for a period after which the bulk of the District’s near-term debt service requirements will be in place.

<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.

Figure 1-6: Projected Debt Service Coverage Ratio

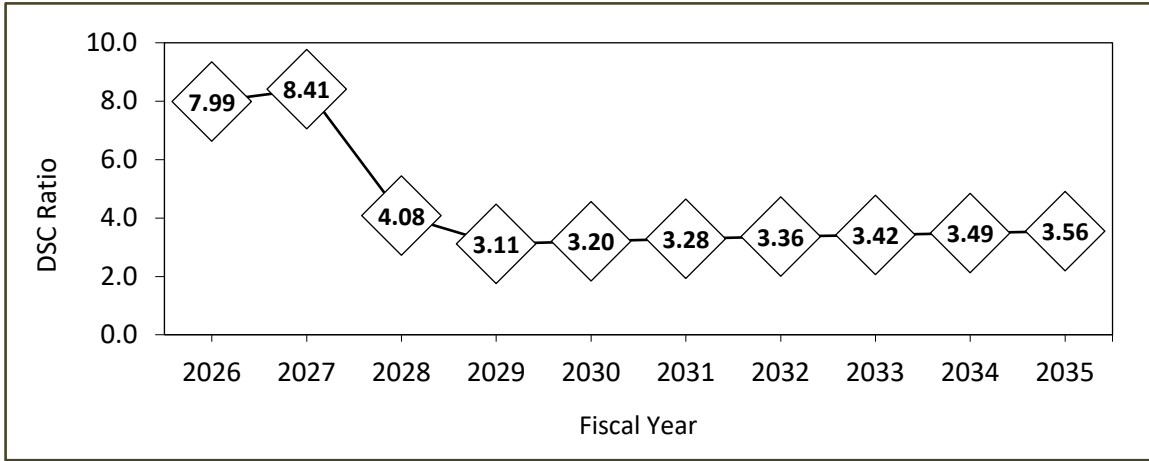
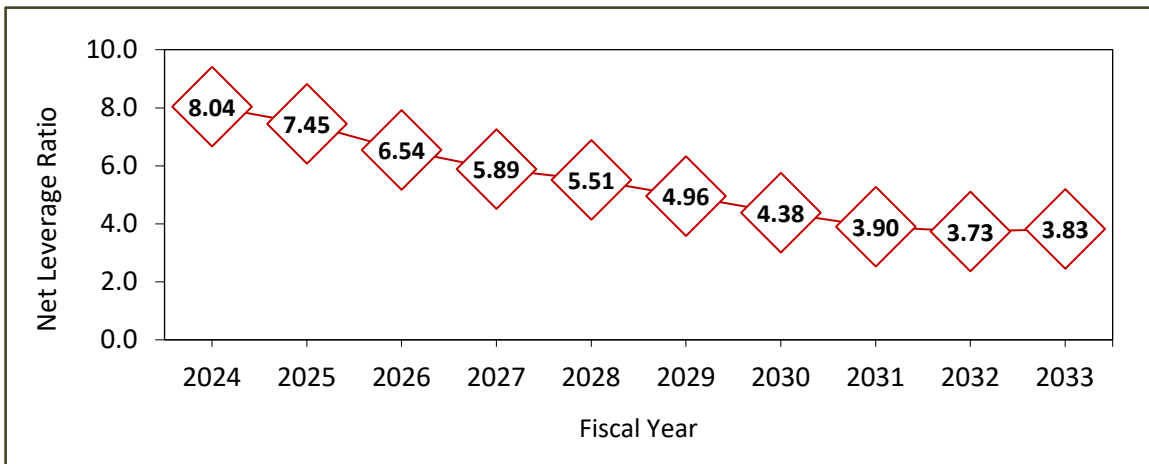


Figure 1-7 shows that the District's estimated net leverage ratio will peak at 8.04x in FY2024 (when the District concludes its planned WIFIA financing for the WWSS) and then decline annually in future years.<sup>7</sup>

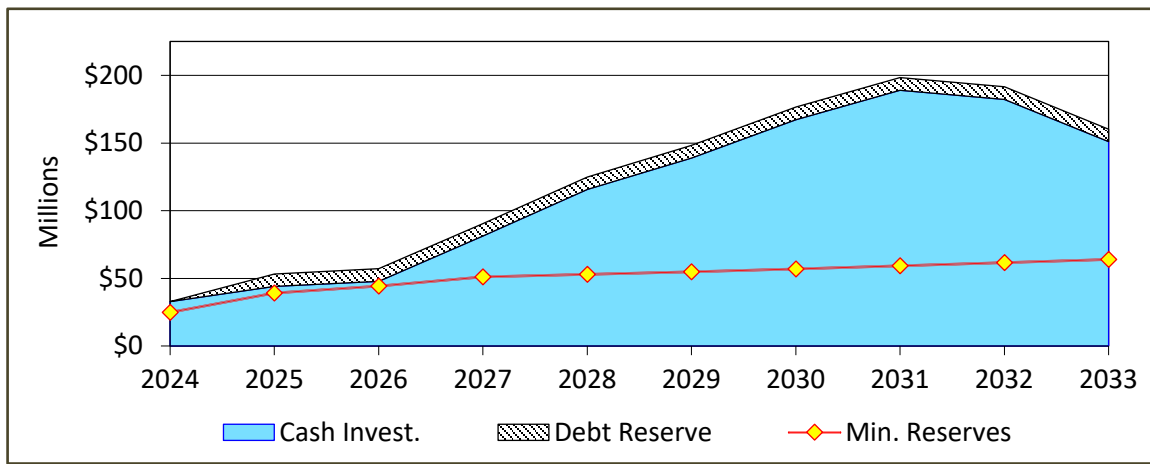
Figure 1-7: Projected Net Leverage Ratio



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

**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 – Ordinance 01-22 – Authorizing the Issuance of Water Revenue Bonds
- Appendix D – Master Revenue Bond Declaration
- Appendix E – First Supplement to Master Revenue Bond Declaration
- Appendix F – Second Supplement to Master Revenue Bond Declaration
- Appendix G – Parity Certificate and Transcript Documents
- Appendix H – PERS Valuation Report
- Appendix I – Forecast Model Summary Results
- Appendix J – Map – Tualatin Valley Water District (Washington County, Oregon)

## 1.4 Conclusion

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.

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## 2 Financial Management Objectives and Policies

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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.

---

<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 18, 2023 by Resolution 01-23.

*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

---

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

---

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.

---

<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-0>).

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 and again in May 2023 as part of its revenue bond issuance process, 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.

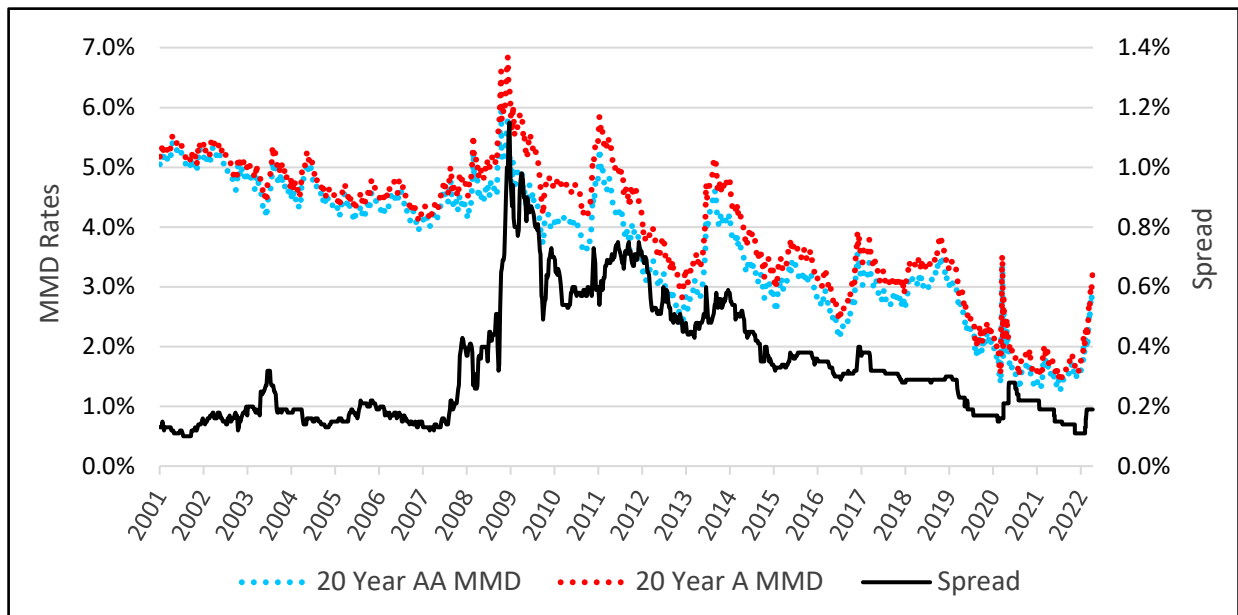
Table 2-1 (next page) provides a scale comparison for investment grade securities for three national rating agencies. The District's ratings are shaded.

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 Barney Reservoir that provide 5,789 acre feet<sup>16</sup> of stored water capacity. Barney Reservoir is 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.

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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> 5,789 acre-feet is equivalent to 14.5 MGD for approximately 130 days.

### 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.

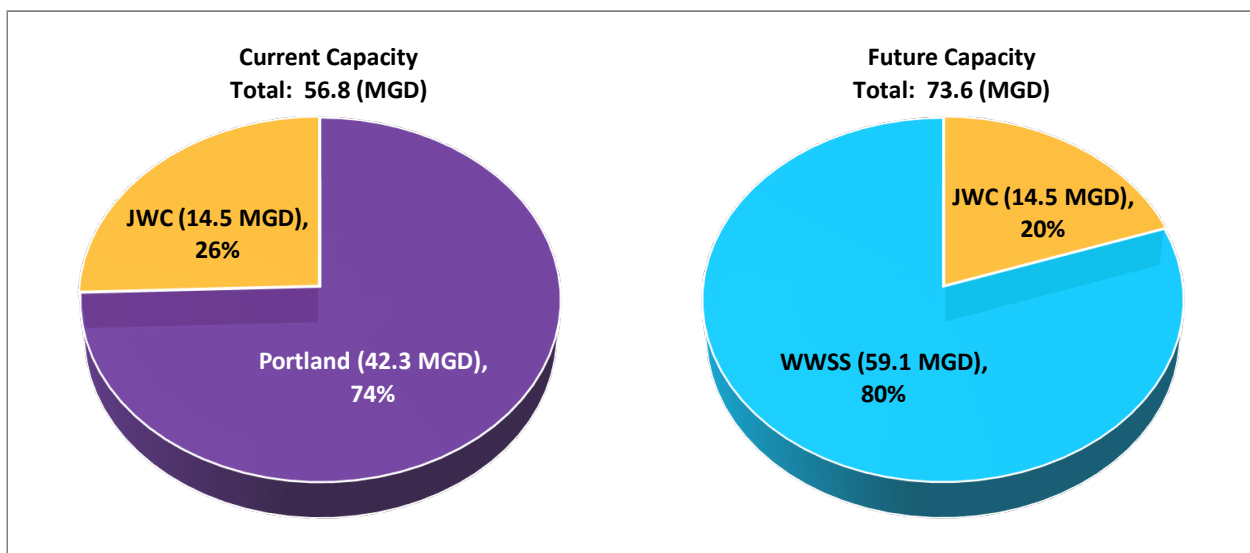
To reduce the higher costs of purchasing water for peak-summer use, the District forecasts its projected demand on a regular basis. This short-term demand forecasting helps the District meet the minimum purchase requirement of the Portland agreement while efficiently using the JWC and ASR sources to 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 3-1 summarizes the District’s current source water capacities and its planned capacities beginning in FY2027.

Figure 3-1: 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

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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.

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.

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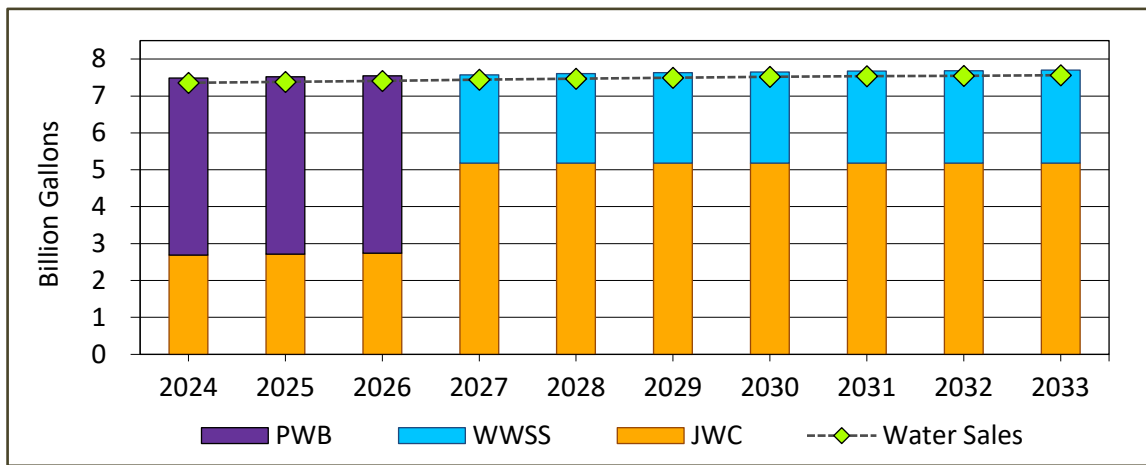
<sup>17</sup> The WWSP website (<http://www.ourreliablewater.org/>) provides additional information including activities-to-date, maps, and other related information for all WIF and WWSS projects.

<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.

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.

Figure 3-2 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 FY2024 numbers. Additional future withdrawals by Beaverton would impact the projections shown below, and the District would necessarily adjust its assumptions and Financial Plan.

Figure 3-2: Balancing Water Supplies and Demand by Fiscal Year



## 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 current biennial CIP budget (FY2024 and FY2025) and forecast expenditures through FY2033.<sup>19</sup> 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	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Totals
WWSP/WWSS	\$309.0	\$139.2	\$44.3	\$7.3	\$0.0	\$0.0	\$2.3	\$1.9	\$17.0	\$18.6	<b>\$539.6</b>
JWC	0.7	1.3	1.4	1.9	1.1	1.5	1.4	1.5	1.6	1.5	<b>13.8</b>
TVWD Source	2.8	1.8	0.5	4.3	0.0	0.0	0.0	0.0	0.0	0.0	<b>9.5</b>
Storage	12.4	8.5	0.0	0.0	1.8	3.9	0.1	0.1	3.9	12.1	<b>42.8</b>
Pumping	4.4	11.6	1.6	1.2	1.7	8.9	0.2	0.2	1.2	1.2	<b>32.1</b>
Pipelines*	53.8	16.4	13.0	17.6	18.7	20.0	17.0	25.2	35.5	51.4	<b>268.7</b>
PRVs/Vaults	1.1	1.2	2.1	0.3	0.4	0.9	0.8	1.1	0.9	0.9	<b>9.7</b>
Facilities/Fleet/IT	2.4	2.6	1.4	1.8	3.0	1.7	1.4	1.4	1.5	1.5	<b>18.9</b>
Meters/Svcs	8.9	8.9	9.7	10.1	2.1	2.2	2.2	2.3	2.4	2.4	<b>51.2</b>
Other	1.8	1.9	2.0	2.0	2.1	2.2	11.3	11.7	12.1	12.6	<b>59.8</b>
<b>Totals</b>	<b>\$397.4</b>	<b>\$193.4</b>	<b>\$76.0</b>	<b>\$46.6</b>	<b>\$30.9</b>	<b>\$41.2</b>	<b>\$36.7</b>	<b>\$45.3</b>	<b>\$76.1</b>	<b>\$102.4</b>	<b>\$1046.1</b>
<b>Summary</b>											
WWSP/WWSS	\$309.0	\$139.2	\$44.3	\$7.3	\$0.0	\$0.0	\$2.3	\$1.9	\$17.0	\$18.6	<b>\$539.6</b>
JWC	0.7	1.3	1.4	1.9	1.1	1.5	1.4	1.5	1.6	1.5	<b>13.8</b>
In-District*	87.7	52.9	30.3	37.4	29.9	39.7	33.1	42.0	57.5	82.3	<b>492.7</b>

\*Includes MPE (prelim. estimates: \$53.1 million in FY2024-27, \$152.7 million total), being delivered by the WWSP.

- The largest element of the District’s ten-year CIP is the WWSP/WWSS at approximately \$539.6 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,

<sup>19</sup> As of early July 2023, the District’s adopted 2023-2025 budget is not available online. However, a complete project list with 6-year cost projections is available in the District’s Approved as Proposed Budget for 2023-2025, in Appendix C – FY2024-29 Six-year Capital Improvement Plan. The budget document is available on the District’s website, under “Supporting Documents” on the Budget page (<https://www.tvwd.org/finance/page/budget>).

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.

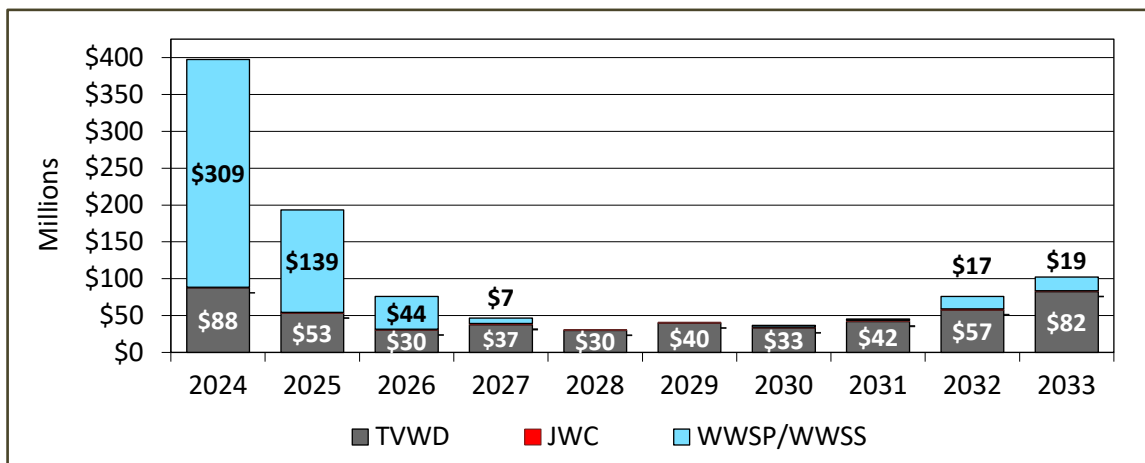
- Pipelines will be the next costliest category of ten-year and future CIP expenditures. Included in the \$268.7 million shown above is the District’s Mains Replacement Program and Metzger Pipeline East, which will deliver WWSS water to both the District’s Metzger and Wolf Creek service areas.
- A reservoir replacement and several other reservoir improvements are included in the \$42.8 million for Storage.
- Similarly, at approximately \$32.1 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>20</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>21</sup>

At its July 20, 2022 regular meeting, the Board of Commissioners adopted Ordinance 01-22 which added \$100 million in net bond proceeds to the total amount authorized to fund capital expenditures.<sup>22</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>23,24</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:

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.

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<sup>20</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>21</sup> A signed copy of the Ordinance is included as *Appendix B – Ordinance 01-19 – Authorizing the Issuance of Debt.*

<sup>22</sup> The Ordinance is included as *Appendix C – Ordinance 01-22 – Authorizing the Issuance of Water Revenue Bonds.*

<sup>23</sup> The District’s Master Declaration, First Supplement, and Second Supplement are included as *Appendix D – Master Revenue Bond Declaration, Appendix E – First Supplement to Master Revenue Bond Declaration, and Appendix F – Second Supplement to Master Revenue Bond Declaration, respectively.*

<sup>24</sup> The District’s signed Parity Certificate and related transcript documents are included as *Appendix G – Parity Certificate and Transcript Documents.*

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

### 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

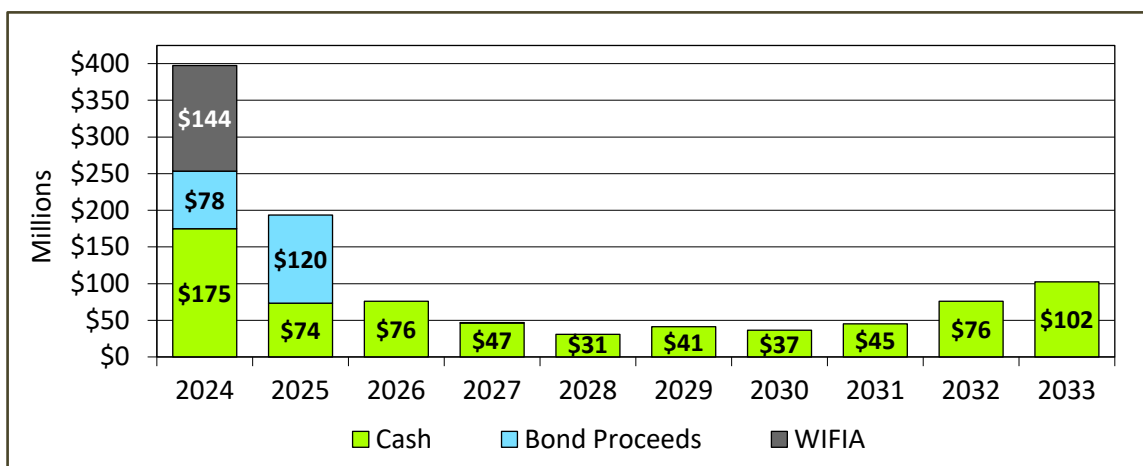
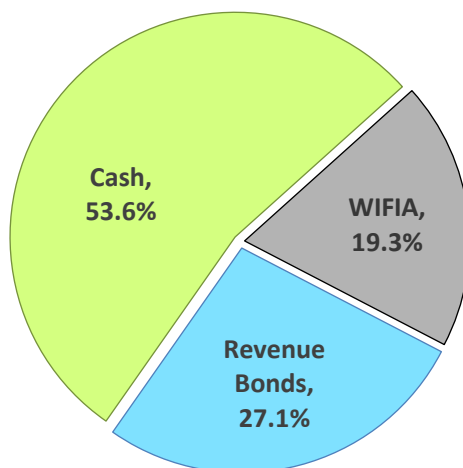


Figure 5-2 illustrates the proportional amounts of CIP funding through the end of FY2028.

Figure 5-2: Five-Year CIP Funding Ratios by Source (Cash and Debt, FY2024-FY2028)





## 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 2023 Revenue Bonds

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*TERM.* The 2023 Bonds were issued with a 30-year term.

*INTEREST RATE.* The total interest cost is 4.03% for the 2023 Bonds.

*ISSUANCE COSTS.* The issuance costs for the 2023 Bonds included \$291 thousand for the cost of issuance plus \$528 thousand for the underwriter's discount. The sum of these two costs, approximately \$819 thousand, is included in the Issuance Costs column of Table 5-2 below.

*PRINCIPAL AMORTIZATION.* The actual amortization schedule for the 2023 Bonds was incorporated into the District's financial Forecast model.

*DEBT SERVICE RESERVE.* For the 2023 Bonds, no reserve was required.

### 5.3.2 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 Proceeds	Total Cap-i	Total Financed
FY2022 [1]	\$103.4	\$7.9	\$111.3
FY2023	140.2	9.5	149.7
FY2024	144.1	8.1	152.2
<b>Totals</b>	<b>\$387.7</b>	<b>\$25.5</b>	<b>\$413.2</b>

[1] Initial draw on WIFIA funds in June 2022.

*PRINCIPAL AMORTIZATION.* Per the repayment schedule included in the WIFIA loan agreement, the principal amount of approximately \$413 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.

### 5.3.3 Future Revenue Bond Debt Assumptions

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

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

*ISSUANCE COSTS.* Revenue bond issuance costs are estimated at 0.75% of the par amount for each issuance through FY2025. If revenue bonds are 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 the projected revenue bond issuance in FY2025, the District assumed that amortization would be structured with provision for interest-only payments until FY2028. This assumption was incorporated into the District’s two prior 2021-23 Financial Plan (May 2021) with input from the District’s municipal adviser, an assumption that the municipal adviser confirmed during the 2023 Bonds issuance process.

*DEBT SERVICE RESERVE.* Revenue bond reserve requirements were calculated based on the maximum annual debt service (MADS) of each future 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, premium (2023 Bonds only), estimated issuance costs, capitalized interest (WIFIA loan only), reserve requirements (projected revenue bonds only), and total issue amounts for the entire financial planning period (30-year).

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

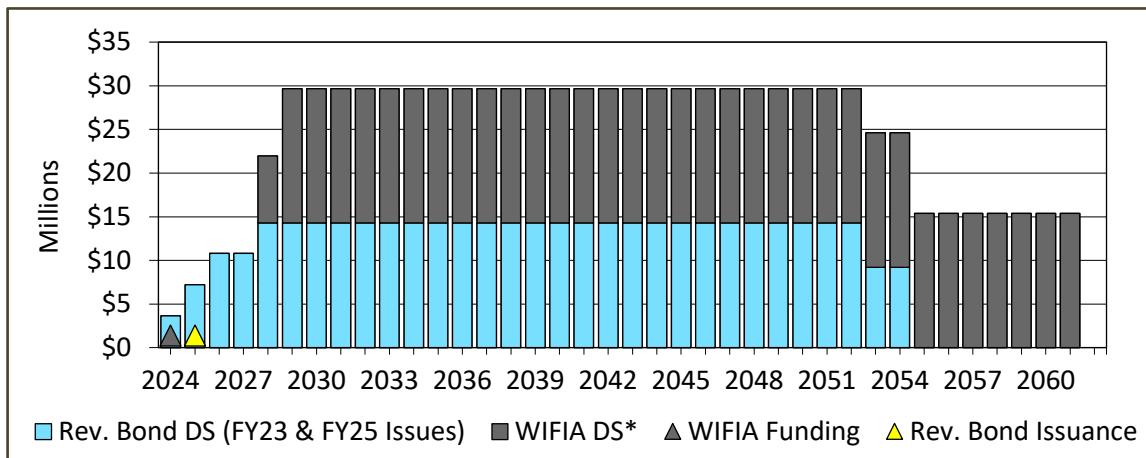
	Proceeds for CIP	Premium	Issuance Costs [1][2][3]	Reserve Req. [4]	Capitalized Interest	Net Financed
<b>Outstanding Debt</b>						
2023 Bonds	\$82.2	(\$10.2)	\$0.8	\$0.0	\$0.0	\$72.8
<b>Projected Debt Issuances</b>						
WIFIA	\$387.7	\$0.0	\$0.0	\$0.0	\$25.5	\$413.2
FY2025 Revenue Bonds	119.8	0.0	1.0	9.2	0.0	130.0
<b>Future Totals</b>	<b>\$507.5</b>	<b>\$0.0</b>	<b>\$1.0</b>	<b>\$9.2</b>	<b>\$25.5</b>	<b>\$543.2</b>
<b>Grand Totals</b>	<b>\$589.7</b>	<b>(\$10.2)</b>	<b>\$1.8</b>	<b>\$9.2</b>	<b>\$25.5</b>	<b>\$616.0</b>

- [1] Issuance costs include fees for bond counsel, disclosure counsel, financial advisor, ratings, and other costs.
- [2] Issuance costs for the 2023 Bonds also include the Underwriter's Discount of approximately \$528 thousand.
- [3] Projected revenue bond issuance costs assumed at 0.75% of the total amounts financed per year.
- [4] Projected revenue bond reserve requirement assumed at max. 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. 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.

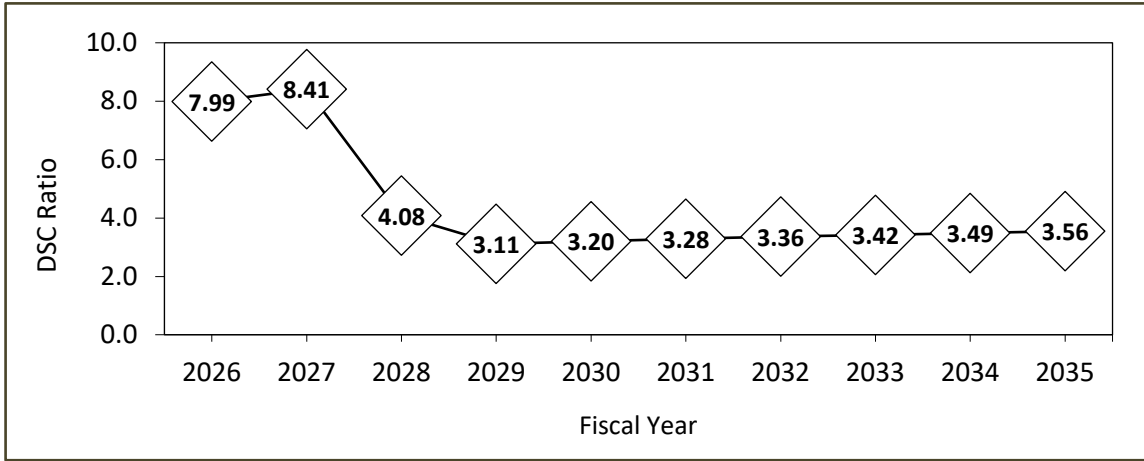
Figure 5-3: Projected Annual Debt Service by Fiscal Year



\* 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).

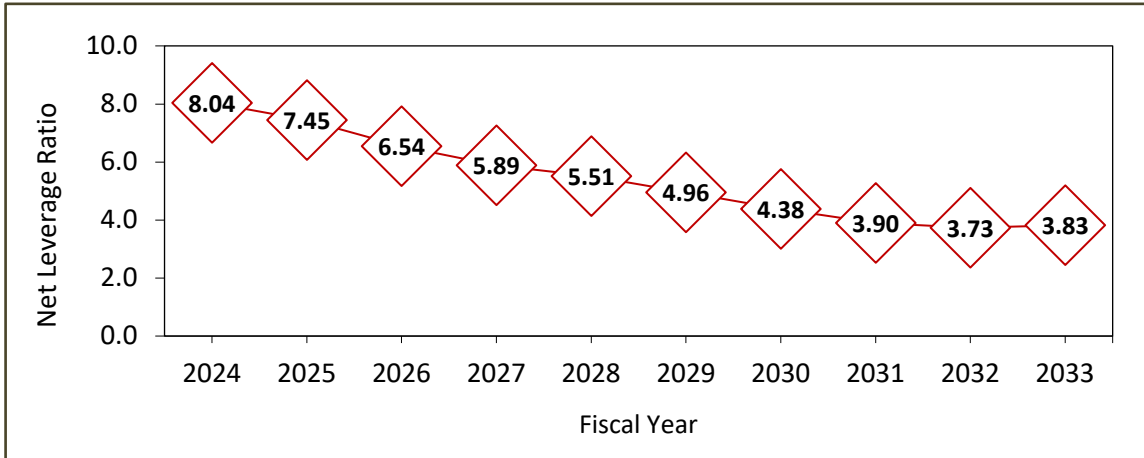
Figure 5-4: Projected Debt Service Coverage



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 FY2024. This coincides with the conclusion of the District’s planned WIFIA financing for the WWSS. Beginning in FY2025, the District’s net leverage ratio will fall to less than the target maximum and continue to decline annually in future years.<sup>25</sup>

Figure 5-5: Projected Net Leverage Ratio



<sup>25</sup> For background information on the Net Leverage ratio, see Section 2.2.1.1 in this report.

## 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

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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)

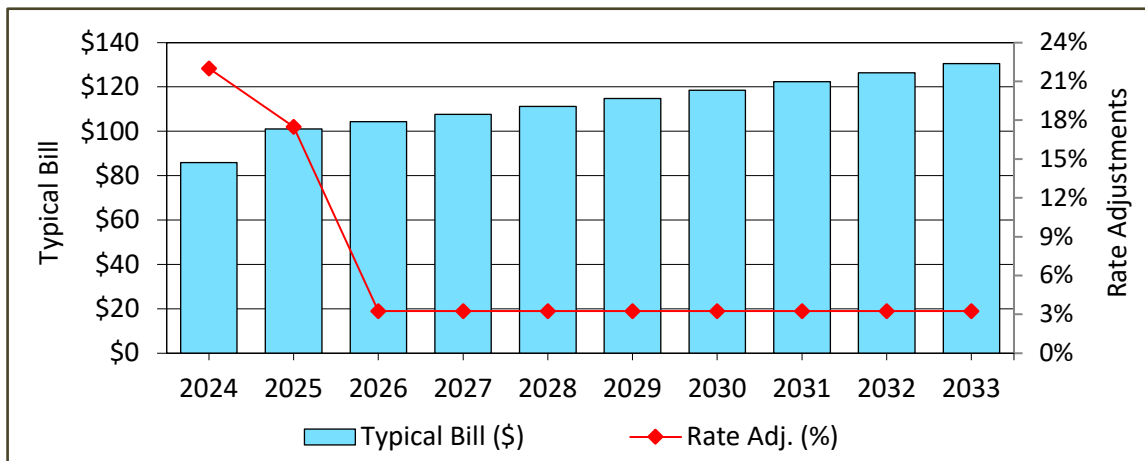
Using all these inputs and assumptions, District staff uses its Forecast model to determine the level of rate revenue needed to meet the District's requirements in each year of the model's forecast period.

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 June 21, 2023 regular monthly meeting, this Financial Plan presents the Board’s strategy for meeting the District’s revenue requirements over the next several years. Figure 6-1 presents the Forecast customer impacts over the presentation period, including typical monthly bills and projected rate revenue adjustments:

- 22.0% in November 2023 (FY2024)
- 17.5% in November 2024 (FY2025)
- 3.25% 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

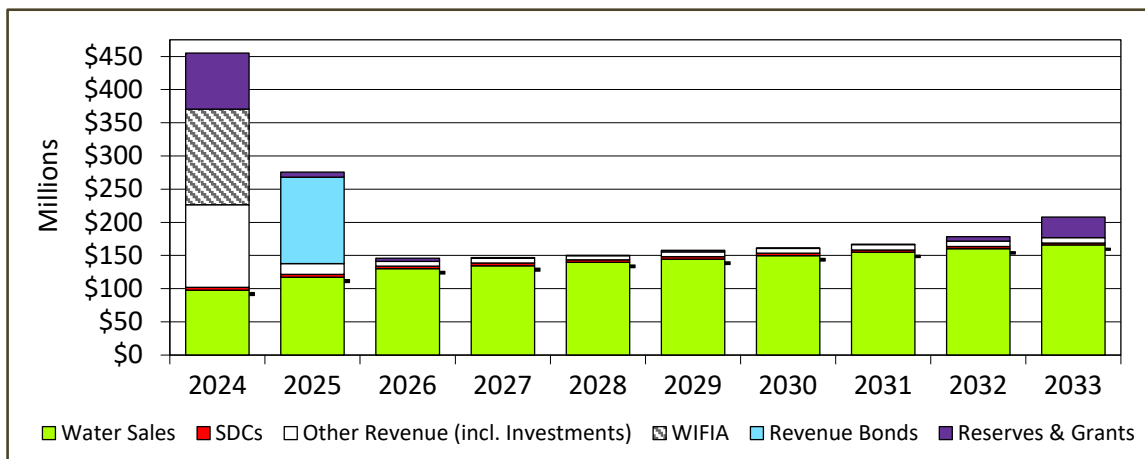


Table 6-1: Revenues and Other Funding Sources by Fiscal Year (\$ Millions)

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Totals
Water Sales	\$97.7	\$117.4	\$130.0	\$134.7	\$139.6	\$144.7	\$149.8	\$155.1	\$160.4	\$165.9	<b>\$1395.4</b>
SDCs	4.5	4.4	4.3	4.2	4.0	3.8	3.6	3.4	3.2	3.0	<b>38.4</b>
Other Revenue	124.2	16.1	7.0	7.2	6.2	6.8	7.3	7.8	8.1	8.0	<b>198.7</b>
WIFIA	144.1	-	-	-	-	-	-	-	-	-	<b>144.1</b>
Revenue Bonds	-	130.0	-	-	-	-	-	-	-	-	<b>130.0</b>
Reserves & Grants [1]	84.5	7.6	4.9	0.6	0.6	2.5	0.5	0.0	6.8	31.2	<b>139.3</b>
<b>Totals</b>	<b>\$455.1</b>	<b>\$275.5</b>	<b>\$146.2</b>	<b>\$146.7</b>	<b>\$150.5</b>	<b>\$157.8</b>	<b>\$161.2</b>	<b>\$166.3</b>	<b>\$178.5</b>	<b>\$208.1</b>	<b>\$2045.8</b>

[1] Approximately 87% of the reserves funding shown in FY2024 is from the District’s initial WIFIA draw of \$103.4 million in June 2022. The District had invested those funds with maturities planned for FY2024 (when needed for capital expenditures) and earned interest from favorable rates in the meantime. The additional interest earnings have been used to offset costs including higher-cost revenue bonds.

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 FY2024, the District projects that it will receive approximately \$4.5 million from water SDCs. For the first 5 years of the forecast, the District assumed that SDC collections will decline slowly, by about \$120 thousand per year. After that, the District projects that SDCs will continue to decline by approximately \$200 thousand per year in FY2029 and FY2030 and escalating with inflation 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 FY2024 budget for these items plus actual data from FY2022 and FY2023, the Forecast includes a projection of approximately \$2.6 million in FY2024. From FY2025 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 FY2024 to FY2027, the Forecast includes between \$1.6 and \$1.9 million per year from partner reimbursements for capitalized overhead related to WWSP projects. This resource is eliminated after FY2027 as the WWSP will be complete.

*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 \$139 thousand in FY2024 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 \$762 thousand in FY2024 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).* Given the District's substantial level of reserves currently held in its investment portfolio, the Forecast includes interest earnings totaling approximately \$2.7 million in FY2024 and \$1.5 million in FY2025. These amounts include interest earned on the District's cash balances plus semi-annual coupon payments received on invested funds.

As the District uses cash reserves for capital expenditures over the next two years, interest earnings are projected to decline to approximately \$740 thousand in 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

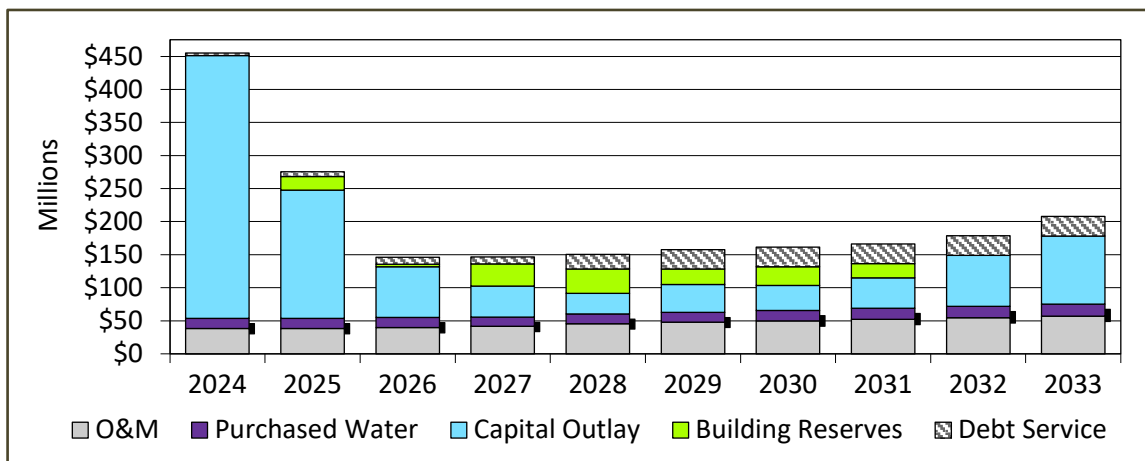


Table 6-2: Annual Expenditures and Increases in Reserves by Fiscal Year (\$ Millions)

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Totals
O&M Costs [1]	\$38.6	\$38.1	\$39.9	\$41.5	\$45.6	\$47.7	\$49.8	\$52.1	\$54.4	\$56.8	<b>\$464.5</b>
Purchased Water [2]	15.0	15.7	15.2	13.8	14.5	15.3	16.0	16.8	17.6	18.5	<b>158.5</b>
Capital Outlay	397.9	193.9	76.5	47.2	31.5	41.9	37.4	45.9	76.8	103.1	<b>1052.2</b>
Building Reserves	0.0	20.5	3.8	33.4	36.8	23.3	28.3	21.8	0.0	0.0	<b>167.9</b>
Debt Service	3.7	7.2	10.8	10.8	22.0	29.7	29.7	29.7	29.7	29.7	<b>202.7</b>
<b>Totals</b>	<b>\$455.1</b>	<b>\$275.5</b>	<b>\$146.2</b>	<b>\$146.7</b>	<b>\$150.5</b>	<b>\$157.8</b>	<b>\$161.2</b>	<b>\$166.3</b>	<b>\$178.5</b>	<b>\$208.1</b>	<b>\$2045.8</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 2023-2025 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 the FY2025 budget data at 4.5% annually, except for expected variances from this assumption. 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>26</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. 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 District’s UAL has fluctuated based on market conditions and changes to assumptions used by PERS. In its 2020 valuation, the District’s estimated UAL increased to approximately \$14.7 million due to a reduction in the Oregon PERS discount rate. In last year’s report on the 2021 valuation, the District’s estimated UAL decreased to approximately \$5.0 million based on an increase in the overall valuation of the assets held by the PERS system.<sup>27</sup> Given shifts in the market during 2022, the District

<sup>26</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>27</sup> For details on the District’s PERS valuation and a system-wide analysis of OPERS, see *Appendix H – PERS Valuation Report*.

expects that its 2022 valuation will include an increase in its UAL, reversing the favorable decrease in the prior year. 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>28</sup>

*PURCHASED WATER (INCLUDES FUTURE WWSS SUPPLY).* Based on the District’s 2023-2025 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)

	2024	2025	2026	2027
<b>Portland</b>				
Purchase (MGD) [1]	13.16	13.16	13.16	0.00
Rate (\$/CCF) [2]	\$1.694	\$1.787	\$1.790	\$2.185
<b>Annual Cost (\$ million)</b>	<b>\$10.9</b>	<b>\$11.5</b>	<b>\$11.5</b>	<b>\$0.0</b>
<b>JWC</b>				
Purchase (MGD) [3]	7.36	7.44	7.51	14.20
Rate (\$/CCF) [4]	\$0.720	\$0.780	\$0.815	\$0.852
<b>Annual Cost (\$ million)</b>	<b>\$2.6</b>	<b>\$2.8</b>	<b>\$3.0</b>	<b>\$5.9</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>\$13.5</b>	<b>\$14.3</b>	<b>\$14.5</b>	<b>\$12.3</b>
<i>% Change</i>		6.3%	1.2%	(15.3%)

[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] FY2024 and FY2025 JWC rates provided by JWC, escalated 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 3-2, 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 \$2.2 million (15.3%) 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

<sup>28</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.

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 FY2025 budget at an annual rate of 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 \$812 thousand in FY2027, from \$627 thousand in FY2026 to \$1.47 million in FY2027.

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 \$1.37 million, or 9% 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 \$500 thousand in the District's FY2024 budget and \$523 thousand in FY2025, 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 I – 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.

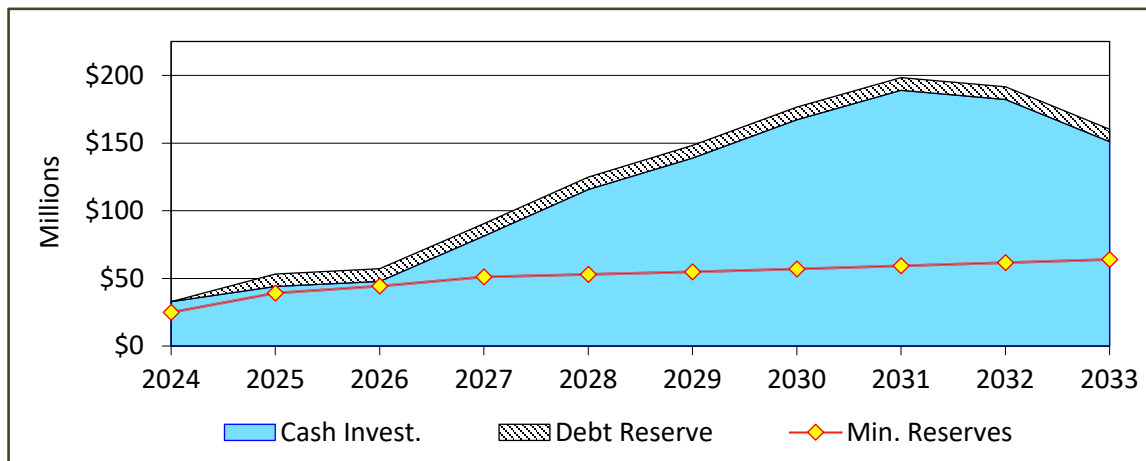
In contrast, the Forecast is only concerned with the *District's* revenue requirements and how those requirements will be met with available cash (including liquid investments) and future debt. Therefore, partner costs shares are not included, and the District's costs are tracked as uses of cash reserves 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>29</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>29</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

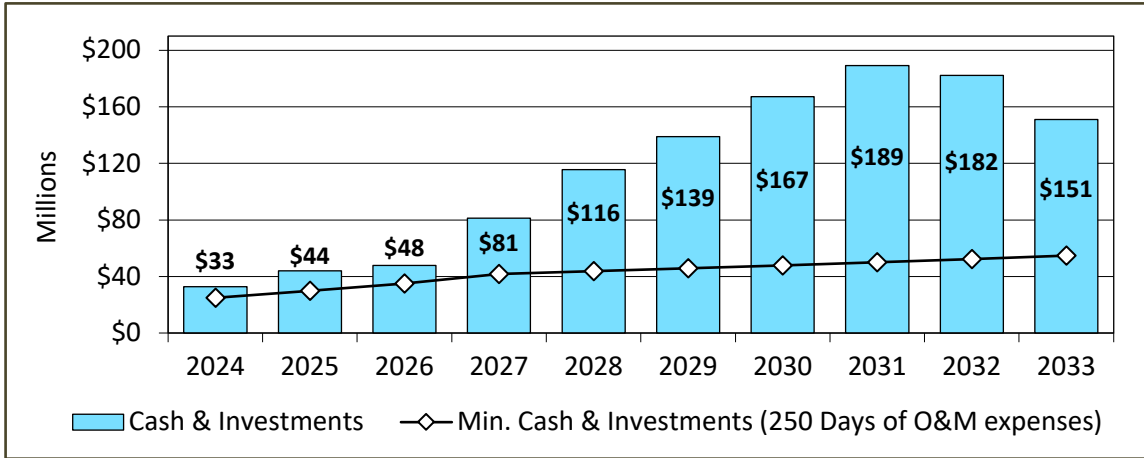
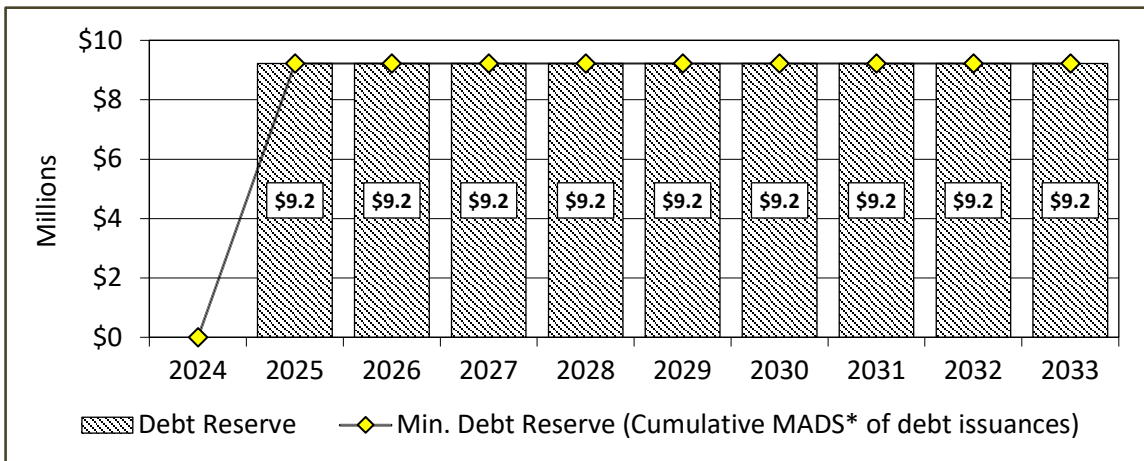


Figure 7-3: Debt Service Reserve Balance Requirements by Fiscal Year



\* Maximum annual debt service on the projected FY2025 revenue bond issuance.

### 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.



# 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. Ordinance 01-22 – Authorizing the Issuance of Water Revenue Bonds
- D. Master Revenue Bond Declaration
- E. First Supplement to Master Revenue Bond Declaration
- F. Second Supplement to Master Revenue Bond Declaration
- G. Parity Certificate and Transcript Documents
- H. PERS Valuation Report
- I. Forecast Model Summary Results
- J. Map – Tualatin Valley Water District (Washington County, Oregon)



## A. Proposed Financial Plan Assumptions for the Financial Management Policies



# APPENDIX A

## *Proposed* Financial Plan Assumptions

### **DEBT CAPACITY**

The 2023-2025 Financial Plan includes the assumption that the District will issue approximately \$616 million in total debt by FY2025, with \$589.7 million in net debt proceeds available for funding the District’s capital expenditures. The planned total debt issuances are less than the District’s total \$700 million limit established by District Ordinance 01-19 and District Ordinance 01-22.

### **ISSUANCE COSTS**

Issuance costs for future revenue bonds shall be estimated for each issuance based on the following:

- 0.75% of the par amount for each issuance through FY2025, and
- 1.50% of the par amount of all issuances thereafter.

### **TERM**

The term assumed for future revenue bond issues shall be 30 years. The term for federal or state loan programs shall be the maximum allowed within the program unless a shorter duration is in the financial interest of the District.

### **INTEREST RATES**

Presented below are the assumed interest rates to be included in the financial plan:

<b>Fiscal Year</b>	<b>Revenue Bond Issues</b>	<b>Interest Earnings (on Reserve Funds)</b>
2024	5.50%	Varies by type
2025	5.50%	Varies by type
2026	5.50%	1.50%
2027	5.50%	1.50%
2028	5.50%	1.50%
2029	5.50%	1.50%
2030	5.50%	1.50%
2031	5.50%	1.50%
2032	5.50%	1.50%
2033	5.50%	1.50%

## **Tualatin Valley Water District Financial Management Policies**

### **DEBT SERVICE RESERVE FUND**

Depending on market conditions, a debt service reserve may not be required. However, the Financial Plan shall assume a debt service reserve as the minimum of:

1. The maximum annual debt service for a future revenue bond
2. 125% of the average annual debt service for a future revenue bond issue
3. 10% of the par amount of a future revenue bond issue.

### **DEBT SERVICE COVERAGE RATIOS**

The target minimum for the debt service coverage ratios used in the Financial Plan shall be:

1. 2.0x by including SDCs in gross revenues.
2. 1.5x by excluding SDCs from gross revenues.

### **ADDITIONAL BONDS TEST**

The Financial Plan shall exceed the following additional bonds test ratios:

1. 1.3x by including SDCs in gross revenues.
2. 1.15x by excluding SDCs from gross revenues.

### **NET LEVERAGE RATIO**

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.

### **MINIMUM CASH BALANCES**

The Financial Plan shall include 250 days of forecast annual operations and maintenance expense as the minimum cash balance. This minimum is in addition to any balances required in a debt service reserve account.



B. Ordinance 01-19 – Authorizing the Issuance of Debt

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**ORDINANCE NO. 01-19**

AN ORDINANCE OF THE TUALATIN VALLEY WATER DISTRICT, OREGON, AUTHORIZING THE ISSUANCE OF WATER REVENUE BONDS.

WHEREAS, the District is authorized to issue revenue bonds for a public purpose under ORS 287A.150 and related statutes (the "Act"). Revenue bonds issued under the Act may be payable from all or any portion of the water system revenues of the District; and

WHEREAS, the District may authorize revenue bonds under the Act by nonemergency ordinance. The District may not sell the revenue bonds under the Act until the period for referral of the nonemergency ordinance authorizing the revenue bonds has expired. If a nonemergency ordinance authorizing the revenue bonds is referred, the District may not sell the revenue bonds unless the voters approve the revenue bonds; and

WHEREAS, the District now finds it financially feasible and in the best interests of the District to authorize the issuance of revenue bonds under the Act in order to finance capital assets of the water system, including but not limited to the District's portion of the Willamette Water Supply System including pumps, pipelines, the water treatment plant and the reservoir (collectively, the "System Improvements"); and

WHEREAS, it may be desirable to issue revenue bonds to finance the System Improvements under one or more financing structures, including as water revenue bonds with a senior lien on net revenues of the District's water system, as water revenue bonds with a subordinate lien on net revenues of the District's water system, as short term water revenue bonds or refunding bonds; and

WHEREAS, prior to the issuance of the water revenue bonds, the District desires to incur certain capital expenditures with respect to the System Improvements from available moneys of the District and wishes to declare its official intent to reimburse itself for any such expenditures from the proceeds of borrowings authorized by this ordinance.

NOW THEREFORE, IT IS HEREBY ORDAINED BY THE BOARD OF COMMISSIONERS OF THE TUALATIN VALLEY WATER DISTRICT:

**Section 1.** Issuance of Bonds for System Improvements.

- a. The District hereby authorizes the issuance of revenue bonds pursuant to ORS 287A.150 in an amount that is sufficient to provide net proceeds of up to \$600 million to pay for costs of System Improvements, plus additional amounts that are required to pay capitalized interest, fund bond reserves for bonds authorized by Section 1.a and Section 2 of this ordinance and to pay costs related to the financings. The District estimates that the total principal amount of revenue bonds required for this purpose will not exceed \$680 million. The bonds shall be issued and sold in accordance with the Act.

- b. The bonds authorized by this ordinance shall be special obligations of the District that are payable solely from water system revenues and related amounts that the District pledges to pay the bonds. The District may issue the bonds authorized by this ordinance with a first lien on net revenues of the water system or with a subordinate lien on the net revenues of the water system.
- c. No bonds authorized by Section 1.a of this ordinance may be sold and no purchase agreement for any of those bonds may be executed until the period for referral of this nonemergency ordinance has expired. If this ordinance is referred, the District may not sell the bonds authorized by Section 1.a of this ordinance unless the voters approve those bonds.

**Section 2.** Issuance of Refunding Bonds. The District hereby authorizes the issuance of refunding bonds pursuant to applicable Oregon statutes to refinance any water revenue bonds that are issued pursuant to Section 1.a of this ordinance to provide interim financing. The refunding bonds authorized by this Section 2 may be issued in an aggregate principal amount sufficient to refund any water revenue bonds selected by the District Official pursuant to Section 3.k of this ordinance, plus amounts required to pay costs related to the refunding bonds.

**Section 3.** Delegation. When and if this ordinance takes effect, the Chief Financial Officer, the Chief Executive Officer or the employees of the District designated by the District's Chief Executive Officer or Board of Commissioners to act on behalf of the District under this ordinance (each of whom is referred to herein as a "District Official") are each hereby authorized, on behalf of the District and without further action by the Board of Commissioners, to:

- a. Issue the revenue bonds authorized by this ordinance (the "Water Bonds") in one or more series, which may be sold at different times, and issue any series of Water Bonds as First Lien Bonds, as defined below, or with a subordinate lien on water system revenues.
- b. Issue the Water Bonds as short or intermediate term bonds to provide interim financing for System Improvements and enter into lines of credit or similar documents which permit the District to draw Water Bond proceeds over time.
- c. Participate in the preparation of, authorize the distribution of and deem final the preliminary and final official statements and any other disclosure documents for each series of the Water Bonds, as applicable.
- d. Subject to the limits of this ordinance, establish the final principal amounts, lien status, maturity schedules, interest rates, redemption terms and other terms for each series of Water Bonds.
- e. Either publish a notice of sale, receive bids and award the sale of that series to the bidder complying with the notice and offering the most favorable terms to the District or select one or more underwriters or lenders and negotiate the sale of that series with those underwriters or lenders and execute and deliver a bond purchase agreement or other document in connection with such sale.
- f. Prepare, execute and deliver one or more documents that will specify the terms under which the Water Bonds are issued and the administrative provisions that apply to the Water Bonds.
- g. Enter into covenants with owners or credit enhancement providers that are designed to obtain more favorable terms for the District, including covenants required by the Water Infrastructure Finance and Innovation Act, if the District borrows under that program, or by the State, if the District borrows under State lending programs.

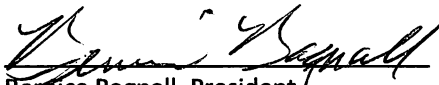
- h. Prepare and finalize the terms of a master water system declaration which pledges the revenues of the District's water system to the Water Bonds issued with a first lien on the water system revenues ("First Lien Bonds"), contains covenants regarding the levels of fees and charges that the District must impose and describes the terms under which the District may issue obligations in the future that are secured by the revenues of the District's water system.
- i. If all or any portion of the Water Bonds is secured by a subordinate lien on water system revenues, establish a master second lien water revenue bond declaration or similar document to memorialize the terms under which that series and future series of subordinate lien bonds may be issued.
- j. Make contributions to bond reserve accounts that the District Official determines are desirable and determine the reserve requirement, if any, for each series of the Water Bonds.
- k. Select water revenue bonds to be refunded, refund any Water Bonds that are issued to provide interim financing with other short, intermediate or long-term term bonds.
- l. Undertake to provide continuing disclosure for any series of Water Bonds in accordance with Rule 15c2-12 of the United States Securities and Exchange Commission or lender requirements, as applicable.
- m. Apply for and purchase municipal bond insurance, reserve sureties or other forms of credit enhancements for any series of Water Bonds and enter into related agreements.
- n. Appoint and enter into agreements with paying agents and other professionals and service providers for the Water Bonds.
- o. Issue any qualifying series of Water Bonds as "tax-exempt bonds" bearing interest that is excludable from gross income under the Internal Revenue Code of 1986, as amended, (the "Code") and enter into covenants for the benefit of the owners of those series to maintain the excludability of interest on those series from gross income under the Code.
- p. If the federal government approves subsidy payments or tax credits for municipal bonds and those subsidies or tax credits are estimated to reduce the net debt service payments for the Water Bonds, issue any series of Water Bonds as eligible for those federal subsidies or tax credits, and enter into related covenants to maintain the eligibility of such series of Water Bonds for those subsidies or tax credits.
- q. Issue any series of Water Bonds as "taxable bonds" bearing interest that is includable in gross income under the Code.
- r. Designate any series of Water Bonds as "green bonds" if applicable.
- s. Execute any documents and take any other action in connection with the Water Bonds which the District Official finds will be advantageous to the District.


Section 4. Unless referred, this ordinance shall take effect on the 30<sup>th</sup> day after it is enacted.

Section 5. Declaration of Intent to Reimburse. The District hereby declares its official intent to reimburse itself with the proceeds of the Water Bonds for any expenditures on the System Improvements paid prior to the issuance of the Water Bonds. This declaration is adopted as an official action of the District in order to comply with United States Treasury Regulation 1.150-2.

Section 6. Pursuant to Oregon Revised Statute Chapter 198, the ordinance was read at two regular meetings of the District Board of Commissioners on two different days, at least six days apart, prior to the adoption thereof, to wit: the 20<sup>th</sup> day of March 2019, and the 17<sup>th</sup> day of April 2019.

Section 7. This ordinance was adopted following a second reading by the affirmative vote of at least a majority of the members of the District Board of Commissioners at its regular meeting on the 17<sup>th</sup> day of April 2019, and was signed by the presiding officer and attested to by the secretary.

  
Bernice Bagnall, President

  
Todd Sanders, Secretary

C. Ordinance 01-22 – Authorizing the Issuance of Water Revenue Bonds

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**TUALATIN VALLEY**  
WATER DISTRICT

## ORDINANCE NO. 01-22

AN ORDINANCE OF THE TUALATIN VALLEY WATER DISTRICT, OREGON, AUTHORIZING THE ISSUANCE OF WATER REVENUE BONDS

WHEREAS, the District is authorized to issue revenue bonds for a public purpose under ORS 287A.150 and related statutes (the "Act"). Revenue bonds issued under the Act may be payable from all or any portion of the water system revenues of the District. The District is also authorized to issue bonds to refund revenue bonds pursuant to ORS 287A.360 to 287A.375; and

WHEREAS, the District may authorize revenue bonds under the Act by nonemergency ordinance. The District may not sell the revenue bonds under the Act until the period for referral of the nonemergency ordinance authorizing the revenue bonds has expired. If a nonemergency ordinance authorizing the revenue bonds is referred, the District may not sell the revenue bonds unless the voters approve the revenue bonds; and

WHEREAS, the District now finds it financially feasible and in the best interests of the District to authorize the issuance of revenue bonds under the Act in order to finance capital assets of the water system, including but not limited to the District's portion of the Willamette Water Supply System and Willamette Intake Facilities, including pumps, pipelines, the water treatment plant and the reservoir (collectively, the "System Improvements"); and

WHEREAS, it may be desirable to issue revenue bonds to finance the System Improvements under one or more financing structures, including as water revenue bonds with a first lien on net revenues of the District's water system ("First Lien Bonds"), as water revenue bonds with a subordinate lien on net revenues of the District's water system, as short-term water revenue bonds or refunding bonds, and to one or more lenders, including the federal government and State of Oregon through their lending programs; and

WHEREAS, the District enacts this ordinance to authorize the issuance and sale of water revenue bonds in an amount sufficient to produce net proceeds of up to \$100 million for costs of System Improvements, to refund water revenue bonds that are issued to provide interim financing and to refund water revenue bonds that produce debt service savings or achieve a favorable reorganization of outstanding bonds;

WHEREAS, prior to the issuance of the water revenue bonds, the District desires to incur certain capital expenditures with respect to the System Improvements from available moneys of the District and wishes to declare its official intent to reimburse itself for any such expenditures from the proceeds of borrowings authorized by this ordinance.

NOW THEREFORE, IT IS HEREBY ORDAINED BY THE BOARD OF COMMISSIONERS OF THE TUALATIN VALLEY WATER DISTRICT:

## Section 1. Issuance of Bonds for System Improvements.

- a. The District hereby authorizes the issuance of revenue bonds pursuant to ORS 287A.150 in an amount that is sufficient to provide net proceeds of up to \$100 million to pay for costs of System Improvements, plus additional amounts that are required to pay capitalized interest, fund bond reserves for bonds authorized by Section 1.a and Section 2 of this ordinance and to pay costs related to the financings. The District estimates that the total principal amount of revenue bonds required for this purpose will not exceed \$115 million. The bonds shall be issued and sold in accordance with the Act.
- b. The bonds authorized by this ordinance shall be special obligations of the District that are payable solely from water system revenues and related amounts that the District pledges to pay the bonds. The District may issue the bonds authorized by this ordinance as First Lien Bonds pursuant to its Master Water System Revenue Bond Declaration dated as of August 2, 2019, (the "Master Declaration") or with a subordinate lien on the net revenues of the water system.
- c. No bonds authorized by Section 1.a of this ordinance may be sold and no purchase agreement for any of those bonds may be executed until the period for referral of this nonemergency ordinance has expired. If this ordinance is referred, the District may not sell the bonds authorized by Section 1.a of this ordinance unless the voters approve those bonds.

Section 2. Issuance of Refunding Bonds. The District hereby authorizes the issuance of refunding bonds pursuant to applicable Oregon statutes to refinance any water revenue bonds that are issued pursuant to Section 1.a of this ordinance to provide interim financing and to refund any water revenue bonds that produce debt service savings or achieve favorable reorganization. The refunding bonds authorized by this Section 2 may be issued in an aggregate principal amount sufficient to refund any water revenue bonds selected by the District Official pursuant to Section 3.k of this ordinance, plus amounts required to pay costs related to the refunding bonds.

Section 3. Delegation. When and if this ordinance takes effect, the Chief Financial Officer, the Chief Executive Officer or the employees of the District designated by the District's Chief Executive Officer or Board of Commissioners to act on behalf of the District under this ordinance (each of whom is referred to herein as a "District Official") are each hereby authorized, on behalf of the District and without further action by the Board of Commissioners, to:

- a. Issue the revenue bonds authorized by this ordinance (the "Water Bonds") in one or more series, which may be sold at different times, and issue any series of Water Bonds as First Lien Bonds pursuant to the Master Declaration, or with a subordinate lien on water system revenues.
- b. Issue the Water Bonds as short or intermediate term bonds to provide interim financing for System Improvements and enter into lines of credit or similar documents which permit the District to draw Water Bond proceeds over time.
- c. Participate in the preparation of, authorize the distribution of the official statements and any other disclosure documents for each series of the Water Bonds, as applicable.
- d. Subject to the limits of this ordinance, establish the final principal amounts, lien status, maturity schedules, interest rates, redemption terms and other terms for each series of Water Bonds.
- e. Either publish a notice of sale, receive bids and award the sale of that series to the bidder complying with the notice and offering the most favorable terms to the District or select one or more underwriters or lenders and negotiate the sale of that series with those underwriters or lenders and execute and deliver a bond purchase agreement or other document in connection with such sale.

- f. Prepare, execute and deliver one or more documents that will specify the terms under which the Water Bonds are issued and the administrative provisions that apply to the Water Bonds, including any supplements or amendments to the Master Declaration.
- g. Enter into covenants with owners or credit enhancement providers that are designed to obtain more favorable terms for the District, including covenants required by the Water Infrastructure Finance and Innovation Act, if the District borrows under that program, or by the State, if the District borrows under State lending programs.
- h. If all or any portion of the Water Bonds is secured by a subordinate lien on water system revenues, establish a master second lien water revenue bond declaration or similar document to memorialize the terms under which that series and future series of subordinate lien bonds may be issued.
- i. Make contributions to bond reserve accounts that the District Official determines are desirable and determine the reserve requirement, if any, for each series of the Water Bonds.
- j. Select water revenue bonds to be refunded, refund any Water Bonds that are issued to provide interim financing with other short, intermediate or long-term term bonds, and call, refund and defease any water revenue bonds that produce net debt service savings or a favorable reorganization.
- k. Undertake to provide continuing disclosure for any series of Water Bonds in accordance with Rule 15c2-12 of the United States Securities and Exchange Commission or lender requirements, as applicable.
- l. Apply for credit ratings on any series of Water Bonds, as necessary.
- m. Apply for and purchase municipal bond insurance, reserve sureties or other forms of credit enhancements for any series of Water Bonds and enter into related agreements.
- n. Appoint and enter into agreements with escrow agents, paying agents, verification agents and other professionals and service providers for the Water Bonds.
- o. Issue any qualifying series of Water Bonds as “tax-exempt bonds” bearing interest that is excludable from gross income under the Internal Revenue Code of 1986, as amended, (the “Code”) and enter into covenants for the benefit of the owners of those series to maintain the excludability of interest on those series from gross income under the Code.
- p. Designate any qualifying series of Water Bonds as “qualified tax-exempt obligations” pursuant to section 265(b)(3) of the Code, if applicable.
- q. If the federal government approves subsidy payments or tax credits for municipal bonds and those subsidies or tax credits are estimated to reduce the net debt service payments for the Water Bonds, issue any series of Water Bonds as eligible for those federal subsidies or tax credits, and enter into related covenants to maintain the eligibility of such series of Water Bonds for those subsidies or tax credits.
- r. Issue any series of Water Bonds as “taxable bonds” bearing interest that is includable in gross income under the Code.
- s. Designate any series of Water Bonds as “green bonds” if applicable and appoint other professionals and service providers needed to provide such designation.

- t. Monitor and comply with all covenants related to the Water Bonds and enter into agreements with partner entities related to the same.
- u. Execute any documents and take any other action in connection with the Water Bonds which the District Official finds will be advantageous to the District.

Section 4. Unless referred, this ordinance shall take effect on the 30<sup>th</sup> day after it is enacted.

Section 5. Declaration of Intent to Reimburse. The District hereby declares its official intent to reimburse itself with the proceeds of the Water Bonds for any expenditures on the System Improvements paid prior to the issuance of the Water Bonds. This declaration is adopted as an official action of the District in order to comply with United States Treasury Regulation 1.150-2.

Section 6. Pursuant to Oregon Revised Statute Chapter 198, the ordinance was read at two regular meetings of the District Board of Commissioners on two different days, at least six days apart, prior to the adoption thereof, to wit: the 15<sup>th</sup> day of June 2022, and the 20<sup>th</sup> day of July 2022.

Section 7. This ordinance was adopted following a second reading by the affirmative vote of at least a majority of the members of the District Board of Commissioners at its regular meeting on the 20<sup>th</sup> day of July 2022, and was signed by the presiding officer and attested to by the secretary.

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Jim Duggan, Vice President

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Jim Doane, Secretary



## D. Master Revenue Bond Declaration

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**MASTER WATER SYSTEM REVENUE  
BOND DECLARATION**

**Tualatin Valley Water District, Oregon**

**Water Revenue Bond**

**Series 2019**

**Executed by the District Official of the Tualatin Valley Water District, Oregon**

**As of the 2nd day of August, 2019**

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# MASTER WATER SYSTEM REVENUE BOND DECLARATION

THIS MASTER WATER SYSTEM REVENUE BOND DECLARATION is executed as of August 2, 2019, by an authorized District Official of the Tualatin Valley Water District, Oregon pursuant to the authority granted to the District Official by the Ordinance to establish the terms under which the District's Water Revenue Bond, Series 2019 and future Parity Bonds may be issued.

## Section 1. Findings.

The District finds that it enacted the Ordinance pursuant to Oregon Revised Statutes ("ORS") Section 287A.150 and related provisions of ORS Chapter 287A. The Ordinance authorizes the District to issue water revenue bonds in an amount that is sufficient to provide net proceeds of up to \$600 million to pay for projects described in the Ordinance, plus additional amounts that are required to pay capitalized interest, fund bond reserves, if any, and pay costs related to the financing, and to enter into this Master Declaration. This Master Declaration establishes the terms under which the District's Water Revenue Bond, Series 2019 is issued and the terms under which future obligations may be issued on a parity with the Series 2019 Bond.

## Section 2. Definitions.

Unless the context clearly requires otherwise, capitalized terms that are used in this Master Declaration shall have the meanings defined for those terms in this Section 2.

"Adjusted Coverage Revenues" means the Coverage Revenues, adjusted for purposes of Section 7.1.C(ii) as provided in Section 7.3.

"Adjusted Net Revenues" means the Net Revenues, adjusted for purposes of Section 7.1.C(ii) as provided in Section 7.3.

"Annual Bond Debt Service" means in any Fiscal Year the amount of principal and interest required to be paid in that Fiscal Year on all Outstanding Bonds, adjusted as follows:

- (a) Interest which is to be paid from Bond Proceeds shall be subtracted;
- (b) Bonds which are subject to scheduled, noncontingent redemption/prepayment or tender shall be deemed to mature on the dates and in the amounts which are subject to mandatory redemption/prepayment or tender, and only the amount scheduled to be Outstanding on the final maturity date shall be treated as maturing on that date;
- (c) Interest subsidies shall be subtracted from the interest due on Interest Subsidy Bonds as provided in Section 6.5;
- (d) Bonds which are subject to contingent redemption/prepayment or tender shall be treated as maturing on their stated maturity dates; and,
- (e) Each Balloon Payment shall be assumed to be paid according to its Balloon Debt Service Requirement.

“Auditor” means a person authorized by the State Board of Accountancy to conduct municipal audits pursuant to ORS 297.670.

“Balloon Debt Service Requirement” means the Committed Debt Service Requirement for a Balloon Payment or, if the District has not entered into a firm commitment to sell Bonds or other obligations to refund that Balloon Payment, the Estimated Debt Service Requirement for that Balloon Payment.

“Balloon Payment” means any principal payment for a Series of Bonds which comprises more than twenty-five percent of the original principal amount of that Series, but only if that principal payment is designated as a Balloon Payment in the closing documents for the Series.

“Base Period” means the alternative selected by the District from the following two options: (a) any twelve consecutive months selected by the District or Qualified Consultant out of the most recent eighteen months preceding the delivery of a Series of Parity Bonds; or (b) the most recently completed fiscal year for which audited financial statements are available.

“BEO” means “book-entry-only” and refers to a system for clearance and settlement of securities transactions through electronic book-entry changes, which eliminates the need for physical movement of securities.

“Bond” or “Bonds” means the Series 2019 Bond and any Parity Bonds.

“Bond Counsel” means a law firm selected by the District and having knowledge and expertise in the field of municipal law and whose opinions are generally accepted by purchasers of municipal bonds.

“Bond Reserve Account” means the Bond Reserve Account in the Water Fund described in Section 5.3 of this Master Declaration.

“Business Day” means any day except a Saturday, a Sunday, a legal holiday, a day on which the offices of banks in Oregon or New York are authorized or required by law or executive order to remain closed, or a day on which the New York Stock Exchange is closed.

“Closing” means the date on which a Series of Bonds is delivered in exchange for payment.

“Code” means the Internal Revenue Code of 1986, as amended, including the rules and regulations promulgated thereunder.

“Committed Debt Service Requirement” means the schedule of principal and interest payments for a Series of Bonds or other obligations which refund a Balloon Payment, as shown in the documents evidencing the District’s firm commitment to sell that Series. A “firm commitment to sell” means a bond purchase agreement or similar document which obligates the District to sell, and obligates a purchaser to purchase, the Series of refunding Bonds or other obligations, subject only to the conditions which customarily are included in such documents.

“Coverage Revenues” means the Net Revenues less System Development Charges.

“Credit Facility” means a letter of credit, a municipal bond insurance policy, standby bond purchase agreement or other credit enhancement device which is obtained by the District to secure payment in full of Bonds, and which is issued or provided by a Credit Provider.

“Credit Provider” means the person or entity that is: (i) obligated to make or guarantee payments under a Credit Facility or Reserve Credit Facility; and (ii) whose long-term debt obligations or claims-paying ability (as appropriate) are rated, at the time the Credit Facility or Reserve Credit Facility is issued, in one of the two highest rating categories by a Rating Agency that has issued a rating on Outstanding Bonds. Under rating systems in effect on the date of this Master Declaration, a rating in one of the two highest rating categories by a Rating Agency would be a rating of “AA-/Aa3” or better.

“Debt Service Account” means the Debt Service Account described in Section 5.2 of this Master Declaration.

“District” means the Tualatin Valley Water District in Washington County, Oregon, a municipal corporation of the State of Oregon.

“District Board” means the Board of Commissioners of the District.

“District Official” means the Chief Financial Official of the District, or then-comparable position at the District, or the employees of the District designated by the District’s Executive Officer or Board of Directors to act on behalf of the District under this Master Declaration.

“DTC” means The Depository Trust Company or any other qualified securities depository designated by the District as its successor.

“Estimated Debt Service Requirement” means the schedule of principal and interest payments for a hypothetical Series of Bonds that refunds a Balloon Payment, that is prepared by the District Official and that meets the requirements of Section 6.4.

“Event of Default” means any event specified in 11.2 of this Master Declaration.

“Fiscal Year” means the period beginning on July 1 of each year and ending on the next succeeding June 30, or as otherwise defined by State law.

“Fitch” means Fitch Investors Service, Inc., its successors and assigns.

“Fund” or “Account” refers to any fund, account, or other accounting concept that permits the District to account accurately for amounts that are credited to it under this Master Declaration. A “Fund” in this Master Declaration does not need to appear as a “fund” in the District’s budget and an “Account” in this Master Declaration does not need to appear as an “account” in the District’s budget.

“Government Obligations” means (a) direct, noncallable obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of the Treasury and principal-only and interest-only strips that are issued by the U.S. Treasury);

or (b) noncallable obligations the principal of and interest on which are secured by the full faith and credit of the United States of America or are unconditionally guaranteed by the United States of America.

“Gross Revenues” means all fees and charges and other revenues that are properly accrued under generally accepted accounting principles as revenues of the Water System, including System Development Charges, revenues from product sales, wholesale water delivery, and fees for other services provided, and interest earnings on Gross Revenues in the Water Fund. Gross Revenues shall be increased by any withdrawals from the Rate Stabilization Account as provided in Section 5.5.B, and shall be reduced by any deposits to the Rate Stabilization Account as provided in Section 5.5.A. However, the term “Gross Revenues” shall not include:

- (a) The interest income or other earnings derived from the investment of any escrow fund established for the defeasance or refunding of outstanding indebtedness of the District;
- (b) Any gifts, grants, donations or other amounts received by the District from any State or Federal Agency or other person if such amounts are restricted by law or the grantor to uses inconsistent with the payment of Bonds;
- (c) The proceeds of any borrowing;
- (d) The proceeds of any liability or other insurance (excluding business interruption insurance or other insurance of like nature insuring against the loss of revenues);
- (e) The proceeds of any casualty insurance which the District intends to utilize for repair or replacement of the Water System;
- (f) The proceeds derived from the sales of assets pursuant to Section 10.9 of this Master Declaration;
- (g) Any ad valorem or other taxes imposed by the District (except charges or payments for Water System services which become “taxes” within the meaning of Article XI, Section 11b of the Oregon Constitution only because they are imposed on property or property owners);
- (h) Any income, fees, charges, receipts, profits or other amounts derived by the District from its ownership or operation of any Separate Utility System;
- (i) Installment payments of District line and branch charges, connection fees, or local improvement district assessments that have been pledged as security for a borrowing other than a Bond;
- (j) The proceeds of any fees or charges the District collects on behalf of a third party, including the fees currently collected by the District on behalf of the cities of Beaverton, Tigard and Hillsboro; or
- (k) Any federal interest subsidies the District receives for Interest Subsidy Bonds.

“Interest Payment Date” means any date on which Bond interest is scheduled to be paid, and any date on which Bonds are called for redemption/prepayment.

“Interest Subsidy Bonds” means Bonds for which the District is eligible to receive federal interest rate subsidies that are similar to the interest subsidies that were available for Build America Bonds.

“Master Declaration” means this Master Water System Revenue Bond Declaration, including any amendments made pursuant to Section 12.

“Maximum Annual Bond Debt Service” means the greatest amount of Annual Bond Debt Service that is due in any Fiscal Year, beginning with the Fiscal Year for which the calculation is made, and ending with the last Fiscal Year in which Outstanding Bonds are scheduled to be paid.

“Moody’s” means Moody’s Investors Service, a corporation organized and existing under the laws of the State of Delaware, its successors and their assigns.

“Net Revenues” means the Gross Revenues less the Operating Expenses.

“Operating Expenses” means all costs which are properly treated as expenses of operating and maintaining the Water System under generally accepted accounting principles. However, Operating Expenses do not include:

- (a) Any rebates or penalties paid from Gross Revenues under Section 148 of the Code;
- (b) Payments of judgments against the District and payments for the settlement of litigation;
- (c) Depreciation and amortization of property values or losses, and other non-cash expenses, including non-cash expenses related to pensions and postemployment benefits,;
- (d) All amounts eligible to be treated for accounting purposes as payments for capital expenditures;
- (e) Interest and other debt service payments, paying agent fees, broker-dealer fees and similar charges for the maintenance of borrowings;
- (f) The expenses of owning, operating or maintaining any Separate Utility System;
- (g) Expenditures made from any liability insurance proceeds;
- (h) Expenditures made from any casualty insurance proceeds used to pay for costs of repairing or replacing portions of the Water System;
- (i) Expenditures made from grant funds, regardless of whether such grant funds are dedicated to a specific purpose or available for the general operation, maintenance and repair or replacement of the Water System;
- (j) Extraordinary, non-recurring expenses of the Water System;
- (k) Payments to third parties from the proceeds of any fees or charges the District collects on behalf of such third parties, including the fees currently collected by the District on behalf of the cities of Beaverton, Tigard and Hillsboro; or
- (l) Expenditures allocable to any other funding source which does not constitute Gross Revenues of the Water System.

“Ordinance” means Ordinance No. 01-19 enacted by the District Board on April 17, 2019.

“ORS” means the Oregon Revised Statutes.

“Outstanding” refers to all Bonds except Bonds that have been defeased pursuant to Section 13 of this Master Declaration, paid in full in cash or canceled, and Bonds which have matured and not been presented for payment (provided that sufficient funds to pay those Bonds have been transferred to the Paying Agent).

“Owner” means a registered owner of a Bond.

“Parity Bond” means the Series 2019 Bond and any obligation that is secured by the Net Revenues on an equal basis with the Bonds and is issued in accordance with Section 7.

“Paying Agent” means the paying agent for the Bonds. The Paying Agent will be appointed when the District enters into publicly offered Bonds.

“Payment Date” means a Principal Payment Date or an Interest Payment Date.

“Permitted Investments” means any investments which the District is permitted to make under the laws of the State.

“Principal Payment Date” means any date on which any Bonds are scheduled to be retired, whether by virtue of their maturity or by mandatory sinking fund redemption/prepayment prior to maturity, and the redemption/prepayment date of any Bonds which have been called for redemption/prepayment.

“Qualified Consultant” means an independent engineer, an independent auditor, an independent financial advisor, or similar independent professional consultant of recognized standing and having experience and expertise in the area for which such person or firm is retained by the District for purposes of performing activities specified in this Master Declaration or any Supplemental Declaration.

“Rate Stabilization Account” means the Rate Stabilization Account established in the Water Fund pursuant to Section 5.5.

“Rating Agency” means Fitch, Moody’s, S&P, or any other nationally recognized financial rating Agency which has rated Outstanding Bonds or a Credit Facility at the request of the District.

“Record Date” means for a series of publicly offered Bonds the date that is established in the proceedings related to that series.

“Reserve Credit Facility” means any arrangement in which the District pays a fee in exchange for an agreement of a Credit Provider to advance money to the District in the future that the District will use in lieu of using cash or Permitted Investments credited to a subaccount in the Bond Reserve Account. “Reserve Credit Facility” does not include guaranteed investment contracts, master repurchase agreements and similar Permitted Investments.

“Reserve Credit Facility Rating” means a long-term debt, financial strength or claims-paying ability rating assigned by a Rating Agency to: (a) a provider of a Reserve Credit Facility, or (b) to any reinsurer of the obligations of a provider of a Reserve Credit Facility.

“Reserve Requirement” means a set of rules for funding a subaccount in the Bond Reserve Account. Each Reserve Requirement shall indicate the amount that is required to be credited to the subaccount, the dates by which that amount must be credited to the subaccount, and the requirements for restoring amounts to the subaccount if amounts are withdrawn to pay Bonds that are secured by the subaccount. The Series 2019 Bond is not secured by the Bond Reserve Account or any subaccount therein.

“S&P” means S&P Global Ratings, a corporation organized and existing under the laws of the State of New York, its successors and their assigns.

“Separate Utility System” means any utility property which is declared by the District to constitute a system which is distinct from the Water System in accordance with Section 9.

“Series” refers to all Bonds authorized by a single ordinance or declaration and delivered in exchange for payment on the same date, regardless of variations in maturity, interest rate or other provisions, unless the closing documents for the Series provide otherwise.

“Series 2019 Bond” means the District’s Water Revenue Bond, Series 2019 issued pursuant to Section 17 of this Master Declaration.

“State” means the State of Oregon.

“Subordinate Obligations” means obligations having a lien on the Net Revenues which is subordinate to the lien of the Bonds. Restrictions on Subordinate Obligations are described in Section 8. On the date of this Master Declaration, the District has no borrowings outstanding with a subordinate lien on the Net Revenues.

“Subordinate Obligations Account” means the Subordinate Obligations Account of the Water Fund which is described in Section 5.4.

“Supplemental Declaration” means any declaration, resolution or other document which supplements or amends this Master Declaration, entered into by the District in compliance with Section 12.

“System Development Charges” means the fees on development imposed by the District pursuant to ORS Chapter 223 or subsequent statutes and which are legally permitted to be used to pay the Bonds.

“Tax Maximum” means, for any Series of Bonds, the least of: the greatest amount of principal, interest and premium, if any, required to be paid in any Fiscal Year on such Series; 125% of average amount of principal, interest and premium, if any, required to be paid on such Series during all Fiscal Years in which such Series will be Outstanding, calculated as of the date of issuance of such Series; or, ten percent of the proceeds of such Series, as “proceeds” is defined for purposes of Section 148(d) of the Code.

“Valuation Date” means the date or dates on which a subaccount of the Bond Reserve Account shall be valued as prescribed in the Supplemental Declaration authorizing the establishment of such subaccount.

“Water Fund” means the collection of funds and accounts used by the District to hold the Gross Revenues and the proceeds of Bonds.

“Water System” means all utility property now or hereafter used by the District to supply water within or without the corporate limits of the District, except property described in the following

sentence. The Water System does not include any Separate Utility System or the Willamette Water Supply System, the Willamette Intake Facilities Commission, the Willamette River Water Coalition and other joint ventures which the District may enter into after the date of this Master Declaration unless the District Official declares in writing in a publicly available document that such joint venture is included in the definition of the Water System.

### **Section 3. Rules of Construction.**

In determining the meaning of the provisions of this Master Declaration, the following rules shall apply unless the context clearly requires application of a different meaning:

- A. References to section numbers shall be construed as references to sections of this Master Declaration.
- B. References to one gender shall include all genders.
- C. References to the singular include the plural, and references to the plural include the singular.

### **Section 4. Deposit, Pledge and Use of Gross Revenues.**

- 4.1. All Gross Revenues shall be deposited to and maintained in the Water Fund, and shall be used only as described in this Section as long as any Bonds remain Outstanding. The District shall apply Gross Revenues in the Water Fund on or before the following dates for the following purposes in the following order of priority:
  - A. At any time to pay Operating Expenses which are then due;
  - B. At least one Business Day prior to each Payment Date, to transfer Net Revenues to the Debt Service Account in an amount sufficient (with amounts available in the Debt Service Account) to pay in full all Bond principal, interest and premium, if any, which is due to be paid on that Payment Date;
  - C. On the Closing date for a Series of Bonds and on the first day of the month following a Valuation Date for any subaccount in the Bond Reserve Account, if the balance in any subaccount of the Bond Reserve Account is determined to be less than the applicable Reserve Requirement, to transfer Net Revenues to the Bond Reserve Account in the amounts required by the provisions creating the subaccounts in the Bond Reserve Account until the balances in all subaccounts of the Bond Reserve Account are equal to their Reserve Requirement;
  - D. On the day on which any rebates or penalties for Bonds are due to be paid to the United States pursuant to Section 148 of the Code, an amount of Net Revenues that is sufficient, with other available funds, to pay the amounts due to the United States;



- E. On the dates specified in any proceedings authorizing Subordinate Obligations, the District shall transfer to the Subordinate Obligations Account the Net Revenues required by those proceedings; and,
  - F. On any date, the District may transfer Gross Revenues to the Rate Stabilization Account or spend Net Revenues for any other lawful purpose relating to the Water System or to providing water, but only if all deposits and payments that are required to be made on or before that date and that have a higher priority under this Section have been made.
- 4.2. The District hereby pledges the Net Revenues and federal interest subsidies the District receives for Interest Subsidy Bonds to the payment of principal of, premium, if any, and interest on all Bonds. Pursuant to ORS 287A.310, these pledges made by the District shall be valid and binding from the Closing of the Series 2019 Bond. The Net Revenues and federal interest subsidies so pledged and hereafter received by the District shall immediately be subject to the lien of such pledges without any physical delivery or further act. The lien of these pledges shall be superior to all other claims and liens except liens and claims for the payment of Operating Expenses. The District covenants and agrees to take such action as is necessary from time to time to perfect or otherwise preserve the priority of the pledges.
- 4.3. If a Reserve Credit Facility is permitted to fund a subaccount in the Bond Reserve Account, the District may pledge the Net Revenues available for transfer to that subaccount of the Bond Reserve Account to pay amounts due under any Reserve Credit Facility securing that subaccount.

**Section 5. Bond Funds and Accounts.**

- 5.1. So long as Bonds are Outstanding, the District shall maintain the Debt Service Account as a discrete account in the Water Fund.
- 5.2. **Debt Service Account.** The District shall hold the Debt Service Account. Until all Bonds are paid or defeased, amounts in the Debt Service Account shall be used only to pay Bonds.
- A. After the transfer described in Section 4.1.B, if the balance in the Debt Service Account is less than the amount of Bond principal, premium, if any, and interest that is due on that Payment Date, the District shall credit to the Debt Service Account an amount equal to the deficiency from any Net Revenues in the Subordinate Obligations Account.
  - B. If, after the credit described in Section 5.2.A, the amounts available to pay Debt Service Account is not sufficient to pay all amounts due on the Payment Date, the District shall allocate the available amounts:
    - (i) First, to pay Bond interest, and pro rata based on the amount due on Bonds if the available amount is not sufficient to pay all Bond interest that is due on that Payment Date; and,

- (ii) Second, to pay Bond principal and premium that is due on that Payment Date, and pro rata based on the amount of principal and premium due on each Bond if the available amount is not sufficient to pay all Bond principal and premium that is due on that Payment Date.
- C. If, after the allocation described in Section 5.2.B, there is not enough to pay all principal, interest and premium allocated to pay Bonds that are secured by a subaccount in the Bond Reserve Account, the District shall apply any amounts available in the subaccounts in the Bond Reserve Account, but only to pay the principal, interest and premium on the Bonds that are secured by those subaccounts.
- D. The District shall transfer sufficient amounts from the Debt Service Account in time to permit payment of all Bond principal, interest and premium, if any, when due in accordance with the Bonds.
- E. Amounts in the Debt Service Account shall be invested only in Permitted Investments. Earnings on the Debt Service Account shall be credited to the Water Fund.

**5.3. Bond Reserve Account.**

- A. If the District determines to secure Bonds with the Bond Reserve Account and so long as those Bonds are Outstanding, the District shall maintain the Bond Reserve Account as a discrete account in the Water Fund held by the District. The District may create one or more subaccounts in the Bond Reserve Account to secure Series of Bonds and covenant to make deposits into any subaccounts it creates; however, the District is not obligated to create any subaccounts in the Bond Reserve Account, and is not obligated to secure any Series of Bonds with a subaccount in the Bond Reserve Account.
- B. When a subaccount in the Bond Reserve Account is created, the District shall determine whether the subaccount will secure one or more Series of Bonds. If the District creates a subaccount in the Bond Reserve Account, the District shall, when it issues the first Series of Bonds that is secured by that subaccount: a) establish the Reserve Requirement for that subaccount; b) pledge amounts credited to that subaccount to pay the Bonds that are secured by that subaccount; and c) determine if the Reserve Requirement for that subaccount may be funded with Reserve Credit Facilities and the requirements for those Reserve Credit Facilities, and the valuation and replenishment provisions that apply to that subaccount.
- C. The District shall not create any subaccounts in the Bond Reserve Account for any purpose except securing Bonds in accordance with this Master Declaration.
- D. The Series 2019 Bond is not secured by the Bond Reserve Account or any subaccount therein.

- 5.4. **Subordinate Obligations Account.** The District shall create and maintain the Subordinate Obligations Account in the Water Fund as long as Subordinate Obligations are Outstanding. The Subordinate Obligations Account may be divided into subaccounts,

and the District may establish priorities for funding the subaccounts in the Subordinate Obligations Subaccount. Net Revenues shall be deposited into the Subordinate Obligations Account only as permitted by Section 4.1.E. Earnings on the Subordinate Obligations Account shall be credited as provided in the proceedings authorizing the Subordinate Obligations.

- 5.5. **Rate Stabilization Account.** The District may create a Rate Stabilization Account in the Water Fund and if created will maintain that account as long as Bonds are Outstanding. Net Revenues may be transferred to the Rate Stabilization Account at the option of the District as permitted by Section 4.1.F. Money in the Rate Stabilization Account may be withdrawn at any time and used for any purpose for which the Gross Revenues may be used.
- A. Deposits to the Rate Stabilization Account decrease Gross Revenues in the Fiscal Year for which the deposit is made.
  - B. Withdrawals from the Rate Stabilization Account increase Gross Revenues in the Fiscal Year for which the withdrawal is made.
  - C. The District may adjust deposits to and withdrawals from the Rate Stabilization Account for a Fiscal Year up until 180 days after the end of that Fiscal Year.
  - D. Earnings on the Rate Stabilization Account shall be credited to the Water Fund.

**Section 6. Rate Covenant; Calculations Relating to Balloon Payments and Interest Subsidy Bonds.**

- 6.1. The District covenants for the benefit of the Owners that it will establish and maintain rates and charges in connection with the operation of the Water System which are sufficient to permit the District to pay all Operating Expenses and all lawful charges against the Net Revenues, and to make all transfers required by this Master Declaration to the Debt Service Account, the Bond Reserve Account and the Subordinate Obligations Account.
- 6.2. The District covenants for the benefit of the Owners of all Bonds that it shall charge rates and fees in connection with the operation of the Water System which, when combined with other Gross Revenues are adequate to generate:
  - A. Coverage Revenues each Fiscal Year at least equal to one hundred fifteen percent (115%) of Annual Bond Debt Service due in that Fiscal Year; and,
  - B. Net Revenues each Fiscal Year at least equal to one hundred twenty-five percent (125%) of Annual Bond Debt Service due in that Fiscal Year.
- 6.3. Not later than six months after the end of each Fiscal Year, the District shall prepare a report that demonstrates whether the District has complied with Section 6.2 during that Fiscal Year and shall file that report in the District records. If the report demonstrates

that the District has not complied with Section 6.2 during that Fiscal Year, it shall not constitute a default under this Master Declaration if, within thirty (30) days after the report is filed, the District files a certificate of a District Official that specifies the actions that the District has taken and will take within the next ninety (90) days to permit the District to comply with Section 6.2 for the remainder of the Fiscal Year in which the report is filed, and for the succeeding Fiscal Year, and the District takes the actions specified by the District Official, or actions having a comparable effect.

- 6.4. The Estimated Debt Service Requirement for Balloon Payments shall be calculated in accordance with this Section 6.4.
- A. For the Rate Covenants: For each Balloon Payment that is Outstanding on May 1 of any Fiscal Year, the District Official shall prepare a schedule of principal and interest payments for a hypothetical Series of Bonds that refunds that Balloon Payment in accordance with Section 6.4.D. The District Official shall prepare that schedule as of that first day of May, and that schedule shall be used to determine compliance with the rate covenant in Section 6.2 for the following Fiscal Year.
  - B. For Parity Bonds: Whenever a Balloon Payment will be Outstanding on the date a Series of Parity Bonds is issued, the District Official shall prepare a schedule of principal and interest payments for a hypothetical Series of Bonds that refunds each Outstanding Balloon Payment in accordance with Section 6.4.D. The District Official shall prepare that schedule as of the date the Parity Bonds are sold, and that schedule shall be used to determine compliance with the tests for Parity Bonds in Section 7.1.
  - C. For the Reserve Requirement: Whenever a Series of Bonds that contains a Balloon Payment is issued, the District Official shall prepare a schedule of principal and interest payments for a hypothetical Series of Bonds that refunds each Balloon Payment in that Series in accordance with Section 6.4.D. The District Official shall prepare that schedule as of the date the Series is sold, and that schedule shall be combined with the schedule for payment of any debt service on Bonds that are secured by the same subaccount, and that combined schedule shall be used to determine the Reserve Requirement as long as that Series is Outstanding.
  - D. Each hypothetical Series of refunding Bonds shall be assumed to be paid in equal annual installments of principal and interest that are sufficient to amortize the principal amount of the Balloon Payment over the term selected by the District Official; however, the District Official shall not select a term that exceeds the lesser of: 30 years from the date the Balloon Payment is originally scheduled to be paid; or, the District's estimate of the remaining weighted average useful life (expressed in years and rounded to the next highest integer) of the assets which are financed with the Balloon Payment. The annual installments shall be assumed to be due on the anniversaries of the date the Balloon Payment is originally scheduled to be paid, with the first installment due on the first anniversary of the date the Balloon Payment is scheduled to be paid. Each installment shall be assumed to bear interest at a rate that is estimated by the District from the Bond Buyer Revenue Bond Index (or if the Bond Buyer Revenue Bond Index is not available, a

reasonably comparable index selected by the District) for a revenue bond with a term that is equal to the term of the installment. When the District prepares a schedule described in Section 6.4.A, Section 6.4.B or Section 6.4.C, the District shall use the index that is available to the District on the date the District is required to prepare that schedule.

- 6.5. Interest Subsidy Bonds. The amounts assumed to be paid on Interest Subsidy Bonds shall be calculated as follows:
  - A. When calculating Annual Bond Debt Service for the rate covenant in Section 6.2, the District shall subtract from interest to be paid on Interest Subsidy Bonds the federal interest subsidies on Interest Subsidy Bonds that the District reasonably expects, at the beginning of the Fiscal Year, to receive during that Fiscal Year.
  - B. When calculating Annual Bond Debt Service and Maximum Annual Bond Debt Service for the tests for issuing Parity Bonds in Section 7, the District shall subtract from the scheduled payments of interest on Interest Subsidy Bonds the amount of federal interest subsidies that the District reasonably expects, at the time the Parity Bonds are issued, to receive.
  - C. When calculating the greatest amount of principal, interest and premium, if any, required to be paid in any Fiscal Year on a Series of Interest Subsidy Bonds to determine the Tax Maximum for Interest Subsidy Bonds that are secured by a subaccount in the Bond Reserve Account, the District shall subtract from the scheduled payments of interest on Interest Subsidy Bonds the federal interest subsidies that the District reasonably expects, at the time the Series of Interest Subsidy Bonds is issued, to be paid to the District for the Series of Interest Subsidy Bonds. The District shall not be required to increase the amount the District is required to hold in a subaccount in the Bond Reserve Account if federal interest subsidies are not paid when or in the amounts expected. However, if the District reduces the amount it holds in a subaccount of the Bond Reserve Account because Bonds secured by that subaccount have been paid, the District must take into account its reasonable expectations of the amount of federal interest subsidies it expects to receive at the time of reduction in determining the amount that the District must retain in a subaccount of the Bond Reserve Account.

### **Section 7. Parity Bonds.**

- 7.1. The District may issue Parity Bonds to provide funds for any purpose relating to the Water System or to providing water, but only if:
  - A. No Event of Default under this Master Declaration or any Supplemental Declaration has occurred and is continuing;
  - B. At the time of the issuance of the Parity Bonds there is no deficiency in the Debt Service Account and all required deposits to all subaccounts in the Bond Reserve Account have been made;
  - C. There shall have been filed with the District either:

- (i) A certificate of the District Official stating that both:
  - (a) Coverage Revenues (adjusted as provided in Section 7.2) for the Base Period were not less than one hundred fifteen percent (115%) of Maximum Annual Bond Debt Service on all then Outstanding Bonds, calculated as of the date the Parity Bonds are issued and with the proposed Parity Bonds treated as Outstanding; and
  - (b) Net Revenues (adjusted as provided in Section 7.2) for the Base Period were not less than one hundred twenty five percent (125%) of Maximum Annual Bond Debt Service on all then Outstanding Bonds, calculated as of the date the Parity Bonds are issued and with the proposed Parity Bonds treated as Outstanding; or
- (ii) A certificate or opinion of a Qualified Consultant:
  - (a) Stating the amount of the Adjusted Coverage Revenues and the Adjusted Net Revenues for each of the five Fiscal Years after the last Fiscal Year for which interest on the Parity Bonds is, or is expected to be, capitalized, or, if interest will not be capitalized, for each of the five Fiscal Years after the proposed Parity Bonds are issued; and
  - (b) Concluding that the respective amounts of Adjusted Coverage Revenues in each of the first four Fiscal Years described in Section 7.1.C(ii)(a) are at least equal to one hundred fifteen percent (115%) of the Annual Bond Debt Service for each of those respective Fiscal Years on all Outstanding Bonds, with the proposed Parity Bonds treated as Outstanding; and,
  - (c) Concluding that the respective amounts of Adjusted Net Revenues in each of the first four Fiscal Years described in Section 7.1.C(ii)(a) are at least equal to one hundred twenty-five percent(125%) of the Annual Bond Debt Service for each of those respective Fiscal Years on all Outstanding Bonds, with the proposed Parity Bonds treated as Outstanding; and,
  - (d) Concluding that the amount of Adjusted Coverage Revenues in the fifth Fiscal Year described in Section 7.1.C(ii)(a) is at least equal to one hundred fifteen percent (115%) of the Maximum Annual Bond Debt Service, calculated for the period beginning with that fifth Fiscal Year on all then Outstanding Bonds, with the proposed Parity Bonds treated as Outstanding; and,
  - (e) Concluding that the amount of Adjusted Net Revenues in the fifth Fiscal Year described in Section 7.1.C(ii)(a) is at least equal to one hundred twenty-five percent (125%) of the Maximum Annual Bond Debt Service, calculated for the period beginning with that fifth Fiscal Year on all then

Outstanding Bonds, with the proposed Parity Bonds treated as Outstanding.

- 7.2. The District may adjust Coverage Revenues and Net Revenues for purposes of Section 7.1.C(i) by adding any Coverage Revenues or Net Revenues the District Official calculates the District would have had during the Base Period because of increases in Water System rates, fees and charges which have been adopted by the District and are in effect on or before the date the Parity Bonds are issued. The District shall adjust Coverage Revenues and Net Revenues for the Base Period by eliminating the effect of any withdrawals from or deposits to the Rate Stabilization Account.
- 7.3. The Qualified Consultant shall calculate Adjusted Net Revenues and Adjusted Coverage Revenues for purposes of Section 7.1.C(ii) as provided in this Section 7.3:
- A. The District shall provide the Qualified Consultant with the following information:
- (i) The Base Period, the Coverage Revenues and Net Revenues for the Base Period and the amounts of any withdrawals from or deposits to the Rate Stabilization Account for Fiscal Years that are included in the Base Period;
  - (ii) Information regarding any Water System utility properties that are being acquired with Parity Bonds and that have an earnings record;
  - (iii) Any changes in rates and charges which have been adopted by the District since the beginning of the Base Period and the dates on which they are scheduled to take effect;
  - (iv) Any changes in customers since the beginning of the Base Period; and,
  - (v) A description of any extensions or additions to the Water System that were in the process of construction at the beginning of the Base Period or commenced construction after the beginning of the Base Period, the expected date of completion of those extensions or additions, the estimated operating and capital costs of those extensions or additions, and any other changes to the Gross Revenues or Operating Expenses that the District reasonably expects to result from the completion and operation of those extensions or additions.
- B. Using the information provided by the District pursuant to Section 7.3.A and any additional information the Qualified Consultant determines is necessary, the Qualified Consultant shall adjust the Coverage Revenues and Net Revenues for the Base Period to eliminate the effect of any withdrawals from or deposits to the Rate Stabilization Account in the manner described in Section 7.2 and may adjust the Coverage Revenues and Net Revenues for the Base Period:
- (i) To reflect any changes that the Qualified Consultant projects will result from the acquisition of Water System utility properties that are being financed with the Parity Bonds and that have an earnings record;

- (ii) To reflect any changes in rates and charges which have been adopted by the District and which are scheduled to take effect during the period described in Section 7.1.C(ii)(a), or which increase rates and charges for inflation at a level which the Qualified Consultant determines is reasonable;
  - (iii) To reflect any changes in customers of the Water System that occurred after the beginning of the Base Period and prior to the date of the Qualified Consultant's certificate; and
  - (iv) To reflect any changes to Coverage Revenues or Net Revenues not included in the preceding paragraphs that are projected to result from the completion and operation of additions and extensions to the Water System that were under construction at the beginning of the Base Period, or commenced construction after the beginning of the Base Period.
- 7.4. The District may issue Parity Bonds to refund Outstanding Bonds without complying with Section 7.1 if the refunded Bonds are legally or economically defeased on the date of delivery of the refunding Parity Bonds and if the Annual Bond Debt Service on the refunding Parity Bonds does not exceed the Annual Bond Debt Service on the refunded Bonds in any Fiscal Year by more than \$5,000.
- 7.5. Bonds shall be treated as "legally defeased" for purposes of Section 7.4 if they are defeased as provided in Section 13. Bonds shall be treated as "economically defeased" for purposes of Section 7.4 if they have been irrevocably called for redemption/prepayment within one year after the date on which the refunding Bonds are issued, and the District has irrevocably deposited money or Government Obligations with the paying agent or Owner for the refunded Bonds, as applicable, or in escrow with an independent trustee or escrow agent, and the money and any amounts to be received from the Government Obligations have been calculated to be sufficient, without reinvestment, to pay the Bonds that are economically defeased.
- 7.6. All Parity Bonds issued in accordance with this Section 7 shall have a lien on the Net Revenues which is equal to the lien of all other Outstanding Bonds.

**Section 8. Subordinate Obligations.**

The District may issue Subordinate Obligations only if:

- 8.1. The Subordinate Obligations are payable solely from amounts permitted to be deposited in the Subordinate Obligations Account pursuant to Section 4.1.E;
- 8.2. The Subordinate Obligations state clearly that they are secured by a lien on or pledge of the Net Revenues which is subordinate to the lien on, and pledge of, the Net Revenues for the Bonds.



### **Section 9. Separate Utility System.**

The District may declare property which the District owns and is part of the Water System (but has a value of less than five percent of the Water System at the time of the declaration), and property which the District has not yet acquired but would otherwise become part of the Water System, to be part of a Separate Utility System. The District may pay costs of acquiring, operating and maintaining Separate Utility Systems from Net Revenues, but only if there is no deficit in the Debt Service Account or the Bond Reserve Account. The District may issue obligations which are secured by the revenues produced by the Separate Utility System, and may pledge the Separate Utility System revenues to pay those obligations. In addition, the District may issue Subordinate Obligations to pay for costs of a Separate Utility System, and may pledge the revenues of the Separate Utility System to pay the Subordinate Obligations.

### **Section 10. General Covenants.**

The District hereby covenants and agrees with the Owners of all Outstanding Bonds as follows:

- 10.1. The District shall promptly cause the principal, premium, if any, and interest on the Bonds to be paid as they become due in accordance with the provisions of this Master Declaration and any Supplemental Declaration.
- 10.2. The District shall maintain complete books and records relating to the operation of the Water System and all District funds and accounts in accordance with generally accepted accounting principles, shall cause such books and records to be audited annually at the end of each Fiscal Year, and shall have an audit report prepared by the Auditor and made available for the inspection of Owners.
- 10.3. The District shall not issue obligations which have a lien on the Net Revenues that is superior to the lien of the Bonds except for obligations to pay Operating Expenses.
- 10.4. The District shall promptly deposit the Gross Revenues and other amounts described in this Master Declaration into the funds and accounts specified in this Master Declaration.
- 10.5. The District shall work in good faith to cause the Water System to be operated at all times in a safe, sound, efficient and economic manner in compliance with all health, safety and environmental laws, regulatory body rules, regulatory body orders and court orders applicable to the District's operation and ownership of the Water System.
- 10.6. The District shall maintain the Water System in good repair, working order and condition.
- 10.7. The District shall not enter into any new agreements or arrangements or make any new offers to provide Water System products or services at a discount from published rate schedules or provide free Water System products or services except: a) for District-owned facilities, b) in case of emergencies, c) where the District exchanges services with other water systems, or d) where in the reasonable judgment of the District such action does not materially reduce the Gross Revenues received by the District.

- 10.8. The District shall at all times maintain with responsible insurers all such insurance on the Water System as is customarily maintained with respect to works and properties of like character against accident to, loss of or damage to such works or properties.
- A. The net proceeds of insurance against material accident to or material destruction of the Water System shall be used to repair or rebuild the damaged or destroyed Water System, and to the extent not so applied, will be applied to the payment or redemption/prepayment of the Bonds.
  - B. The insurance described in Section 10.8 shall be in the form of policies or contracts for insurance with insurers of good standing and shall be payable to the District, or in the form of self-insurance by the District. The District shall establish such fund or funds or reserves which it deems are necessary to provide for its share of any such self-insurance.
- 10.9. The District shall not voluntarily, nor shall it permit others to, sell, mortgage or otherwise permanently dispose of all or any portion of the Water System except:
- A. The District may dispose of all or substantially all of the Water System, only if the District pays all Bonds or defeases them pursuant to Section 13.
  - B. Except as provided in Section 10.9.C or 10.9.D, the District will not voluntarily dispose of any part of the Water System in excess of 10% of the value of the Water System in service unless prior to such disposition either:
    - (i) There has been filed with the District a certificate of a Qualified Consultant or District Official stating that such disposition will not impair the ability of the District to comply with the rate covenants contained in Sections 6.1 and 6.2 of this Master Declaration; or
    - (ii) Provision is made for the payment, redemption/prepayment or other defeasance of a principal amount of Bonds equal to the greater of the following amounts:
      - (a) An amount which will be in the same proportion to the net principal amount of Bonds then Outstanding (defined as the total principal amount of Bonds then Outstanding less the amount of cash and investments in the Debt Service Account, the Bond Reserve Account, and the Subordinate Obligations Account) that the Gross Revenues attributable to the part of the Water System sold or disposed of for the 12 preceding months bears to the total Gross Revenues for such period; or
      - (b) An amount which will be in the same proportion to the net principal amount of Bonds then Outstanding that the book value of the part of the Water System sold or disposed of bears to the book value of the Water System immediately prior to such sale or disposition.

- C. The District may dispose of any portion of the Water System that has become unserviceable, inadequate, obsolete, or unfit to be used or no longer necessary for use in the operation of the Water System.
- D. If the ownership of all or part of the Water System is transferred from the District through the operation of law, the District shall to the extent authorized by law, reconstruct or replace such transferred portion using any proceeds of the transfer unless the District reasonably determines that such reconstruction or replacement is not in the best interest of the District and the Owners, in which case any proceeds shall be used for the payment, redemption/prepayment or defeasance of the Bonds.

**Section 11. Events of Default and Remedies.**

- 11.1. **Continuous Operation Essential.** District Official hereby finds and determines that the continuous operation of the Water System and the collection, deposit and disbursement of the Net Revenues in the manner provided in this Master Declaration and in any Supplemental Declaration are essential to the payment and security of the Bonds, and the failure or refusal of the District to perform the covenants and obligations contained in this Master Declaration or any such Supplemental Declaration will endanger the necessary continuous operation of the Water System and the application of the Net Revenues to the operation of the Water System and the payment of the Bonds.
- 11.2. **Events of Default.** The following shall constitute “Events of Default” so long as they are occurring and have not been cured in accordance with the terms of this Master Declaration:
  - A. If the District shall fail to pay any Bond principal or interest when due.
  - B. Except as provided in Section 11.3, if the District shall default in the observance and performance of any other of its covenants, conditions and agreements in this Master Declaration and the default continues for ninety (90) days after the District receives a written notice, specifying the Event of Default and demanding the cure of such default, from a Credit Provider or from the Owners of not less than 25% in aggregate principal amount of the Bonds Outstanding.
  - C. If the District shall sell, mortgage or otherwise permanently dispose of all or any portion of the Water System in violation of Section 10.9.
  - D. If an order, judgment or decree shall be entered by any court of competent jurisdiction:
    - (i) Appointing a receiver, trustee or liquidator for the District or the whole or any part of the Water System;
    - (ii) Approving a petition filed against the District seeking the bankruptcy, arrangement or reorganization of the District under any applicable law of the United States or the State; or

- (iii) Assuming custody or control of the District or of the whole or any part of the Water System under the provisions of any other law for the relief or aid of debtors and such order, judgment or decree shall not be vacated or set aside or stayed (or, in case custody or control is assumed by said order, such custody or control shall not be otherwise terminated) within sixty (60) days from the date of the entry of such order, judgment or decree.

E. If the District shall:

- (i) Admit in writing its inability to pay its debts generally as they become due;
- (ii) File a petition in bankruptcy or seeking a composition of indebtedness under any state or federal bankruptcy or insolvency law;
- (iii) Consent to the appointment of a receiver of the whole or any part of the Water System; or
- (iv) Consent to the assumption by any court of competent jurisdiction under the provisions of any other law for the relief or aid of debtors of custody or control of the District or of the whole or any part of the Water System.

11.3. **Exception.** It shall not constitute an Event of Default under 11.2.B if the default cannot practicably be remedied within ninety (90) days after the District receives notice of the default, so long as the District promptly commences reasonable action to remedy the default after the notice is received, and continues reasonable action to remedy the default until the default is remedied.

11.4. **Remedies.** If an Event of Default occurs, any Owner may exercise any remedy available at law or in equity including mandamus where applicable. However, the Bonds shall not be subject to acceleration.

A. Books of District Open to Inspection.

- (i) The District covenants that if an Event of Default shall have happened and shall not have been remedied, the books of record and account of the District and all other records relating to the Water System shall at all reasonable times be subject to the inspection and use of any persons holding at least twenty percent (20%) of the principal amount of Outstanding Bonds and their respective agents and attorneys.
- (ii) The District covenants that if the Event of Default shall happen and shall not have been remedied, the District will continue to account, as a trustee of an express trust, for all Net Revenues and other amounts, securities and funds pledged under this Master Declaration.

B. Appointment of Trustee. Whenever any Event of Default exists, Owners representing 51 percent or more of the Outstanding Bonds may appoint a commercial bank or other

financial institution with a reported capital and surplus in excess of \$50 million as trustee (the “Trustee”) to represent the interests of the Owners.

#### **11.5. Trustee Duties Upon Default.**

- A. Upon the occurrence of an Event of Default the Trustee may pursue any other available remedy at law or in equity to enforce the payment of the principal of, premium, if any, and interest on the outstanding Bonds, and to enforce any rights of the Trustee under or with respect to the Master Declaration.
- B. In addition, upon the occurrence of an Event of Default, and upon the filing of a suit or other commencement of judicial proceedings to enforce the rights of the Trustee and of the Owners under the Master Declaration, the Trustee will be entitled, as a matter of right to the fullest extent permitted by Oregon law, to the appointment of a receiver or receivers of the Net Revenues and other amounts pledged under the Master Declaration, pending such proceedings, with such powers as the court making such appointment may confer.
- C. If an Event of Default has occurred and is continuing and if requested so to do by the Owners of at least 25% in aggregate principal amount of Outstanding Bonds and indemnified as provided in the Master Declaration, the Trustee will be obligated to exercise any of the rights and powers conferred by this Master Declaration, as the Trustee, being advised by counsel, deems most expedient in the interest of the Owners.
- D. If a Trustee has been appointed pursuant to 11.4.B, no Owner of any Bond shall have the right to institute any suit, action or proceeding at law or in equity, for any remedy under the Master Declaration, unless:
  - (i) such Owner has previously given to the Trustee written notice of the occurrence of an Event of Default;
  - (ii) the Owners of a majority in aggregate principal amount of all the Bonds then Outstanding have requested the Trustee in writing to exercise its powers under the Master Declaration;
  - (iii) said Owners have tendered to the Trustee indemnity reasonably acceptable to the Trustee against the costs, expenses and liabilities to be incurred in compliance with such request; and
  - (iv) the Trustee has refused or failed to comply with such request for a period of 60 days after such written request has been received by the Trustee and said tender of indemnity is made to the Trustee.
- E. If the Trustee takes any judicial or other action in an Event of Default the Trustee has full power in its direction with respect to any continuance, discontinuance, withdrawal, compromise, settlement or other disposition of such action, unless opposed by the written request of the Owners of a majority in aggregate principal amount of the Outstanding

Bonds. The Trustee is appointed attorney-in-fact of the Owners for the purpose of bringing any suit action or proceedings in an Event of Default.

F. Waivers of Event of Default.

- (i) No delay or omission of any Owner or of the Trustee to exercise any right or power arising upon the happening of an Event of Default shall impair any right or power or shall be construed to be a waiver of any such Event of Default or to be an acquiescence therein; and every power and remedy given by this Section 11 to the Owners and to the Trustee may be exercised from time to time and as often as may be deemed expedient by the Owners and/or the Trustee as applicable.
- (ii) The owners of not less than fifty percent (50%) in principal amount of the affected Bonds that are at the time Outstanding, or their attorneys-in-fact duly authorized, or the Trustee may, on behalf of the Owners of all of affected Bonds, waive any past default under this Master Declaration with respect to such Bonds and its consequences, except a default in the payment of the principal of, premium, if any, or interest on any of the Bonds. No such waiver shall extend to any subsequent or other default or impair any right consequent thereon.
- (iii) If a default occurs under Section 6 and that default has not become an Event of Default, that default shall be deemed waived at the end of the first Fiscal Year following that default in which the District has complied with Section 6.

**11.6. Remedies Granted in Master Declaration Not Exclusive.**

No remedy by the terms of this Master Declaration conferred upon or reserved to the Owners is intended to be exclusive of any other remedy, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Master Declaration or existing at law or in equity or by statute on or after the date of adoption of this Master Declaration. However, the Bonds shall not be subject to acceleration.

**Section 12. Amendment of Master Declaration.**

- 12.1. This Master Declaration may be amended by Supplemental Declaration without the consent of any Owners for any one or more of the following purposes:
  - A. To cure any ambiguity or formal defect or omission in this Master Declaration;
  - B. To add to the covenants and agreements of the District in this Master Declaration, other covenants and agreements to be observed by the District which are not contrary to or inconsistent with this Master Declaration as theretofore in effect;
  - C. To authorize issuance of Bonds or Subordinate Obligations as permitted by this Master Declaration;

- D. To modify, amend or supplement this Master Declaration or any Supplemental Declaration to qualify this Master Declaration under the Trust Indenture Act of 1939, as amended, or any similar federal statute hereafter in effect or to permit the qualification of any Bonds for sale under the securities laws of any of the states of the United States of America;
  - E. To confirm, as further assurance, any security interest or pledge created under this Master Declaration or any Supplemental Declaration;
  - F. To make any change which, in the reasonable judgment of the District, does not materially and adversely affect the rights of the owners of any Outstanding Bonds;
  - G. So long as a Credit Facility (other than a Reserve Credit Facility) is in full force and effect with respect to the Bonds affected by such Supplemental Declaration, to make any other change which is consented to in writing by the issuer of such Credit Facility other than any change which:
    - (i) Would result in a downgrading or withdrawal of the rating then assigned to the affected Bonds by the Rating Agencies;
    - (ii) Changes the maturity (except as permitted herein), the Interest Payment Dates, interest rates, redemption/prepayment and purchase provisions, and provisions regarding notices of redemption/prepayment and purchase applicable to the affected Bonds or diminishes the security afforded by such Credit Facility;
    - (iii) Materially and adversely affects the rights and security afforded to the Owners of any Outstanding Bonds not secured by such Credit Facility; or
  - H. To modify any of the provisions of this Master Declaration or any Supplemental Declaration in any other respect whatever, as long as the modification shall take effect only after all affected Outstanding Bonds cease to be Outstanding.
- 12.2. This Master Declaration may be amended for any other purpose only upon consent of Owners of not less than fifty-one percent (51%) in aggregate principal amount of the Bonds Outstanding; provided, however, that no amendment shall be valid without the consent of Owners of 100 percent (100%) of the aggregate principal amount of the Bonds Outstanding which:
- A. Extends the maturity of any Bond, reduces the rate of interest upon any Bond, extends the time of payment of interest on any Bond, reduces the amount of principal payable on any Bond, or reduces any premium payable on any Bond, without the consent of the affected Owner; or
  - B. Reduces the percent of Owners required to approve Supplemental Declarations.

- 12.3. For purposes of Section 12.2, and subject to Section 12.4, the initial purchaser of a series of Bonds may be treated as the Owner of that Series at the time that series of Bonds is delivered in exchange for payment.
- 12.4. Except as otherwise expressly provided in Section 12.5, Section 12.6 or a Supplemental Declaration, as long as a Credit Facility securing all or a portion of any Outstanding Bonds is in effect, the issuer of such Credit Facility shall be deemed to be the Owner of the Bonds secured by such Credit Facility for the purpose of the execution and delivery of a Supplemental Declaration of any amendment, change or modification of this Master Declaration or the initiation by Owners of any action which under this Master Declaration requires the written approval or consent of or can be initiated by the Owners of at least a majority in principal amount of the affected Bonds at the time Outstanding, or following an Event of Default for all other purposes.
- 12.5. The issuer of a Credit Facility shall not be deemed to be an Owner for purposes of any amendment, change or modification of this Master Declaration which:
- A. Would result in a downgrading or withdrawal of the rating then assigned to the affected Bonds by the Rating Agencies; or
  - B. Changes the maturity (except as expressly permitted herein), the Interest Payment Dates, interest rates, redemption/prepayment and purchase provisions, and provisions regarding notices of redemption/prepayment and purchase applicable to the affected Bonds or diminishes the security afforded by such Credit Facility; or
  - C. Reduces the percentage or otherwise affects the classes of affected Bonds, the consent of the Owners of which is required to effect any such modification or amendment.
- 12.6. No issuer of a Credit Facility shall be entitled to act as an Owner during any period in which:
- A. The issuer's Credit Facility is not in full force and effect;
  - B. The issuer of a Credit Facility shall have filed a petition or otherwise sought relief under any federal or state bankruptcy or similar law;
  - C. The issuer of the Credit Facility shall, for any reason, have failed or refused to honor a proper demand for payment under such Credit Facility; or
  - D. An order or decree shall have been entered, with the consent or acquiescence of the issuer of a Credit Facility, appointing a receiver or receivers or the assets of the issuer of a Credit Facility, or if such order or decree having been entered without the consent or acquiescence of the issuer of a Credit Facility, shall not have been vacated or discharged or stayed within ninety (90) days after the entry thereof.
- 12.7. For purposes of determining the percentage of Owners consenting to, waiving or otherwise acting with respect to any matter that may arise under this Master Declaration,



the Owners of Bonds which pay interest only at maturity, and mature more than one year after they are issued shall be treated as Owners of Bonds in an aggregate principal amount equal to the accreted value of such Bonds as of the date the notice is sent requesting consent, waiver or other action as provided herein.

### **Section 13. Defeasance.**

- 13.1. The District shall be obligated to pay Bonds which are defeased pursuant to this Section solely from the money and Government Obligations deposited with the escrow agent or trustee, and the District shall have no further obligation to pay the defeased Bonds from any source except the amounts deposited in the escrow. Bonds shall be deemed defeased if the District:
  - A. Irrevocably deposits money or Government Obligations in escrow with an independent trustee or escrow agent which are calculated to be sufficient without reinvestment for the payment of Bonds which are to be defeased;
  - B. Files with the escrow agent or trustee a certificate from an independent, certified public accountant to the effect that the money and the principal and interest to be received from the Government Obligations are calculated to be sufficient, without further reinvestment, to pay the defeased Bonds when due; and
  - C. Files with the escrow agent or trustee an opinion of nationally recognized bond counsel that the proposed defeasance will not cause interest on the defeased Bonds to be includable in gross income under the Code.

### **Section 14. BEO System.**

- 14.1. Unless otherwise provided by a Supplemental Declaration, all Bonds shall be subject to the BEO System pursuant to the provisions of this Section 14.1.
- 14.2. The Bonds shall be initially issued as a BEO security issue with no Bonds being made available to the Owners upon the execution and delivery of the letter of representations among the Paying Agent, DTC and the District. Ownership of the Bonds shall be recorded through entries on the books of banks and broker-dealer participants and correspondents that are related to entries on the DTC BEO system. The Bonds shall be initially issued in the form of separate single fully registered typewritten Bonds for each maturity of the Bonds (the "Global Bonds"). Each Global Bond shall be registered in the name of CEDE & CO. as nominee (the "Nominee") of DTC (DTC and any other qualified securities depository designated by the District as a successor to DTC, collectively the "Depository") as the "Registered Owner", and such Global Bonds shall be lodged with the Depository until early redemption or maturity of the Bond issue. The Paying Agent shall remit payment for the maturing principal and interest on the Bonds to the Owner for distribution by the Nominee for the benefit of the owners (the "Beneficial Owner" or "Record Owner") by recorded entry on the books of the Depository

participants and correspondents. While the Bonds are in BEO form, the Bonds will be available in denominations of \$5,000 or any integral multiple thereof within a maturity.

- 14.3. In the event the Depository determines not to continue to act as securities depository for the Bonds, or the District determines that the Depository shall no longer so act, then the District will discontinue the BEO system with the Depository. If the District fails to designate another qualified securities depository to replace the Depository or elects to discontinue use of a BEO system, the Bonds shall no longer be a BEO issue but shall be registered in the registration books maintained by the Paying Agent in the name of the Owner as appearing on the Bond register and thereafter in the name or names of the Owners of the Bonds transferring or exchanging Bonds.
- 14.4. While the Bonds are in BEO form, the District and the Paying Agent shall have no responsibility or obligation to any participant or correspondent of the Depository or to any Registered Owner on behalf of which such participants or correspondents act as agent for the Owner with respect to:
  - A. The accuracy of the records of the Depository, the Nominee or any participant or correspondent with respect to any ownership interest in the Bonds;
  - B. The delivery to any participant or correspondent or any other person, other than an Owner as shown in the registration books maintained by the Paying Agent, of any notice with respect to the Bonds, including any notice of redemption/prepayment;
  - C. The selection by the Depository of the beneficial interest in Bonds to be redeemed prior to maturity; or
  - D. The payment to any participant, correspondent, or any other person other than the owner of the Bonds as shown in the registration books maintained by the Paying Agent, of any amount with respect to principal of or interest on the Bonds.
- 14.5. Notwithstanding the BEO system, the District may treat and consider the Owner in whose name each Bond is registered in the registration books maintained by the Paying Agent as the Owner and absolute owner of such Bond for the purpose of payment of principal and interest with respect to such Bond, or for the purpose of giving notices of redemption and other matters with respect to such Bond, or for the purpose of registering transfers with respect to such Bond, or for all other purposes whatsoever. The District shall pay or cause to be paid all principal and interest on the Bonds only to or upon the order of the Registered Owner, as shown in the registration books maintained by the Paying Agent, or their respective attorneys duly authorized in writing, and all such payments shall be valid and effective to fully satisfy and discharge the District's obligation with respect to payment thereof to the extent of the sum or sums so paid.
- 14.6. Upon delivery by the Depository to the District and to the Owner of written notice to the effect that the Depository has determined to substitute a new nominee in place of the Nominee, then the word "Nominee" in this Master Declaration shall refer to such new

nominee of the Depository, and upon receipt of such notice, the District shall promptly deliver a copy thereof to the Paying Agent. The Depository shall tender the Bonds it holds to the Paying Agent for re-registration.

**Section 15. Redemption of Bonds.**

- 15.1. Unless otherwise provided by a Supplemental Declaration, all Bonds shall be subject to the redemption terms of this Section 15.
- 15.2. The District reserves the right to purchase Bonds in the open market.
- 15.3. If Bonds are subject to mandatory redemption the Paying Agent shall, without further action by the District, select the particular Bonds to be redeemed in accordance with the mandatory redemption schedule, by lot within each maturity, call the selected Bonds, and give notice of their redemption in accordance with this Section 15.
- 15.4. If certain maturities of Bonds are subject to both optional and mandatory redemption, the District may elect to apply the Bonds which it has previously optionally redeemed to any mandatory redemption maturity. In addition, if the District purchases Bonds which are subject to mandatory redemption, the District may elect to apply against the mandatory redemption requirement any such Bonds which it has previously purchased. If the District makes such an election, it shall notify the Paying Agent not less than sixty days prior to the mandatory redemption date to which the election applies.
- 15.5. So long as the BEO System remains in effect with respect to the Bonds, and unless DTC consents to a shorter period, the Paying Agent shall provide not less than 20 days nor more than 60 days' notice of redemption, and shall provide such information in connection therewith as required by the letter of representations submitted to DTC in connection with the issuance of the Bonds.
- 15.6. During any period in which the BEO System is not in effect with respect to the Bonds, unless waived by any Owner of the Bonds to be redeemed, official notice of any redemption of Bonds shall be given by the Paying Agent on behalf of the District by mailing a copy of an official redemption notice by first class mail postage prepaid at least 20 days and not more than 60 days prior to the date fixed for redemption to the Owner of the Bonds to be redeemed, at the address shown on the Bond Register or at such other address as is furnished in writing by such owner to the Paying Agent. All such official notices of redemption shall be dated and shall state:
  - A. The redemption date;
  - B. The redemption price;
  - C. If less than all Outstanding Bonds are to be redeemed, the identification (and, in the case of partial redemption, the respective principal amounts) of the Bonds to be redeemed;

- D. That on the redemption date the redemption price will become due and payable upon each such Bond or portion thereof called for redemption, and that interest thereon shall cease to accrue from and after said date; and
- E. The place where such Bonds are to be surrendered for payment of the redemption price, which place of payment shall be the principal office of the Paying Agent.
- 15.7. The District shall deposit with the Paying Agent, on or before the redemption date, an amount of money sufficient to pay the redemption price of all the Bonds or portions of Bonds which are to be redeemed on that date.
- 15.8. Official notice of redemption having been given as aforesaid, the Bonds or portions of Bonds to be redeemed shall, on the redemption date, become due and payable at the Redemption Price therein specified, and from and after such date (unless the District shall default in the payment of the redemption price or unless the notice was conditional as described in Section 15.9) such Bonds or portions of Bonds shall cease to bear interest. Upon surrender of such Bonds for redemption in accordance with said notice, such Bonds shall be paid by the Paying Agent at the Redemption Price. Installments of interest due on or prior to the redemption date shall be payable as herein provided for payment of interest. Upon surrender for any partial redemption of any Bond, there shall be prepared for the registered owner a new Bond of the same maturity in the amount of the unpaid principal. All Bonds which have been redeemed shall be canceled and destroyed by the Paying Agent and shall not be reissued. Notwithstanding that any Bonds called for redemption shall not have been surrendered, no further interest shall accrue on any such Bonds. From and after such notice having been given and such deposit having been made, the Bonds to be redeemed shall not be deemed to be Outstanding hereunder, and the District shall be under no further liability in respect thereof.
- 15.9. Any notice of optional redemption given for the Bonds pursuant to this Section 15 may state that the optional redemption is conditional upon receipt by the Paying Agent of amounts sufficient to pay the redemption price of such Bonds or upon the satisfaction of any other condition, and/or that such notice may be rescinded upon the occurrence of any other event, and any conditional notice so given may be rescinded at any time before payment of such redemption price if any such condition so specified is not satisfied or if any such other event occurs. Notice of such rescission or of the failure of any such condition shall be given by the Paying Agent to affected owners of the Bonds as promptly as practicable.

**Section 16. Authentication, Registration and Transfer.**

- 16.1. The provisions of this Section 16 apply only if the Bonds cease to be a BEO issue, and unless otherwise specified in a Supplemental Declaration or Section 17 herein.
- 16.2. No Bond shall be entitled to any right or benefit under this Master Declaration unless it shall have been authenticated by an authorized officer of the Paying Agent. The Paying Agent shall authenticate all Bonds to be delivered at Closing, and shall additionally

authenticate all Bonds properly surrendered for exchange or transfer pursuant to this Master Declaration.


- 16.3. All Bonds shall be in registered form. The Paying Agent will be appointed when the District issues publicly offered Bonds. A successor Paying Agent may be appointed for the Bonds by ordinance or resolution of the District. The Paying Agent shall provide notice to Owners of any change in the Paying Agent not later than the Bond payment date following the change in Paying Agent.
- 16.4. The ownership of all Bonds shall be entered in the Bond register maintained by the Paying Agent and the District and Paying Agent may treat the person listed as owner in the Bond register as the owner of the Bond for all purposes.
- 16.5. The Paying Agent shall mail each interest payment on the Interest Payment Date (or the next Business Day if the Interest Payment Date is not a Business Day) to the name and address of the Owner, as that name and address appear on the Bond register as of the Record Date. If payment is so mailed, neither the District nor the Paying Agent shall have any further liability to any party for such payment.
- 16.6. Bonds may be exchanged for an equal principal amount of Bonds of the same Series and maturity which are in different authorized denominations, and Bonds may be transferred to other owners if the Owner submits the following to the Paying Agent:
  - A. Written instructions for exchange or transfer satisfactory to the Paying Agent, signed by the Owner or his attorney in fact and guaranteed or witnessed in a manner satisfactory to the Paying Agent; and
  - B. The Bonds to be exchanged or transferred.
- 16.7. The Paying Agent shall not be required to exchange or transfer any Bonds submitted to it during any period beginning with a Record Date and ending on the next following payment date; however, such Bonds shall be exchanged or transferred promptly following the payment date.
- 16.8. The Paying Agent shall not be required to exchange or transfer any Bonds which have been designated for redemption if such Bonds are submitted to it during the fifteen-day period preceding the designated redemption date.
- 16.9. For purposes of this Section, Bonds shall be considered submitted to the Paying Agent on the date the Paying Agent actually receives the materials described in Section 16.6.
- 16.10. The District may alter these provisions regarding registration and transfer by mailing notification of the altered provisions to all Owners. The altered provisions shall take effect on the date stated in the notice, which shall not be earlier than 45 days after notice is mailed.

## **Section 17. The Series 2019 Bond.**

- 17.1. Pursuant to the authority of the Ordinance and this Master Declaration, the District has entered into its Series 2019 Bond, a draw-down borrowing, under the WIFIA Loan Agreement for the Willamette Water Project (WIFIA – N18167OR) with the United States Environmental Protection Agency in a maximum principal amount up to \$387,748,990.00, dated as of August 2, 2019 (the “WIFIA Loan Agreement”). The amounts disbursed under the Series 2019 Bond shall be a “Bond” and “Parity Bond” as defined in this Master Declaration. The Series 2019 Bond shall bear interest, shall mature and shall have such other terms as outlined in the WIFIA Loan Agreement.
- 17.2. The amounts disbursed under the Series 2019 Bond shall be special obligations of the District, and shall be payable solely from the Net Revenues and amounts required to be deposited in the Debt Service Account as required and as provided by this Master Declaration. The amounts disbursed under the Series 2019 Bond are not general obligations of the District and are payable solely from the amounts described in the previous sentence. The Series 2019 Bond is not secured by the Bond Reserve Account or any subaccount therein.
- 17.3. The Series 2019 Bond shall be in substantially the form attached to the WIFIA Loan Agreement and shall be signed with the facsimile or manual signature of an authorized District Official.
- 17.4. The Series 2019 Bond proceeds shall be used to finance the projects described in the Ordinance and to pay costs incurred in connection with the issuance of the Series 2019 Bond.
- 17.5. The Series 2019 Bond is placed directly with the United States Environmental Protection Agency and not publicly issued. Because of this, the provisions related to book entry bonds in this Master Declaration do not apply to the Series 2019 Bond.

EXECUTED ON BEHALF OF THE TUALATIN VALLEY WATER DISTRICT BY AN  
AUTHORIZED DISTRICT OFFICIAL AS OF THE 2ND DAY OF AUGUST, 2019.

**Tualatin Valley Water District, Oregon**

By:   
\_\_\_\_\_  
Paul L. Matthews, Chief Financial Officer





## E. First Supplement to Master Revenue Bond Declaration

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**FIRST SUPPLEMENT TO MASTER WATER  
SYSTEM REVENUE BOND DECLARATION**

**Tualatin Valley Water District, Oregon**

**\$387,748,990 (Maximum)  
WIFIA Loan Agreement  
and related Water Revenue Bond, Series 2020  
(Re-execution of Series 2019 Bond)**

**Executed on behalf of the Tualatin Valley Water District, Oregon**

**As of September 15, 2020**

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**SECTION 2. THE SERIES 2020 BOND. .... 1**

# **FIRST SUPPLEMENT TO MASTER WATER SYSTEM REVENUE BOND DECLARATION**

THIS FIRST SUPPLEMENT TO MASTER WATER SYSTEM REVENUE BOND DECLARATION (“First Supplement”) is executed as of September 15, 2020, by the District Official of the Tualatin Valley Water District, Oregon (the “District”) pursuant to the authority granted to the District Official by the Ordinance. This First Supplement supplements the Master Water System Revenue Bond Declaration of the Borrower dated as of August 2, 2019 (as supplemented and amended from time to time in accordance with the terms thereof, the “Master Declaration”), and provides the terms under which the District’s Water Revenue Bond, Series 2020 (the “Series 2020 Bond”) is issued.

Unless the context clearly requires otherwise, capitalized terms that are used in this First Supplement but are not defined shall have the meanings defined for those terms in the Master Declaration.

## **Section 1. Cancellation of the Series 2019 Bond.**

- 1.1. The District issued the Series 2019 Bond and entered into the related WIFIA Loan Agreement with the United States Environmental Protection Agency, acting by and through the Administrator of the Environmental Protection Agency (the “WIFIA Lender”) on August 2, 2019 (the “2019 Loan Agreement”).
- 1.2. The District and the WIFIA Lender have agreed to administrative revisions to the 2019 Loan Agreement and to re-execute the 2019 Loan Agreement as of the date hereof. The Series 2020 Bond, described in Section 2 below, and the WIFIA Loan Agreement (defined in Section 2.1 below) will replace the Series 2019 Bond and 2019 Loan Agreement.
- 1.3. As of the date hereof, the Series 2019 Bond and 2019 Loan Agreement are terminated and cancelled in full and no longer in full force and effect, all as described in Section 40 of the WIFIA Loan Agreement.

## **Section 2. The Series 2020 Bond.**

- 2.1. Pursuant to the authority of the Ordinance and the Master Declaration, the District has entered into its Series 2020 Bond, a draw-down borrowing, under the WIFIA Loan Agreement for the Willamette Water Project (WIFIA – N18167OR) with the WIFIA Lender in a maximum principal amount up to \$387,748,990.00, dated as of September 15, 2020 (the “WIFIA Loan Agreement”). The amounts disbursed under the Series 2020 Bond shall be a “Bond” and “Parity Bond” as defined in the Master Declaration. The Series 2020 Bond shall bear interest, shall mature and shall have such other terms as outlined in the WIFIA Loan Agreement.

- 2.2. The amounts disbursed under the Series 2020 Bond shall be special obligations of the District, and shall be payable solely from the Net Revenues and amounts required to be deposited in the Debt Service Account as required and as provided by the Master Declaration. The amounts disbursed under the Series 2020 Bond are not general obligations of the District and are payable solely from the amounts described in the previous sentence. The Series 2020 Bond is not secured by the Bond Reserve Account or any subaccount therein.
- 2.3. The Series 2020 Bond shall be in substantially the form attached to the WIFIA Loan Agreement and shall be signed with the facsimile or manual signature of an authorized District Official.
- 2.4. The Series 2020 Bond proceeds shall be used to finance the projects described in the Ordinance and to pay costs incurred in connection with the issuance of the Series 2020 Bond.
- 2.5. The Series 2020 Bond is placed directly with the United States Environmental Protection Agency and not publicly issued. Because of this, the provisions related to book entry bonds in the Master Declaration do not apply to the Series 2020 Bond.

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EXECUTED ON BEHALF OF THE TUALATIN VALLEY WATER DISTRICT BY AN  
AUTHORIZED DISTRICT OFFICIAL AS OF THE 15<sup>th</sup> DAY OF SEPTEMBER 2020.

**Tualatin Valley Water District, Oregon**

By:   
Paul L. Matthews, Chief Financial Officer





## F. Second Supplement to Master Revenue Bond Declaration

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**SECOND SUPPLEMENT TO MASTER WATER  
SYSTEM REVENUE BOND DECLARATION**

**Tualatin Valley Water District, Oregon**

**Water Revenue Bonds  
Series 2023**

**Executed on behalf of the Tualatin Valley Water District, Oregon**

**As of May 31, 2023**

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## **SECOND SUPPLEMENT TO MASTER WATER SYSTEM REVENUE BOND DECLARATION**

THIS SECOND SUPPLEMENT TO MASTER WATER SYSTEM REVENUE BOND DECLARATION is executed as of May 31, 2023, by the District Official of the Tualatin Valley Water District, Oregon (the “District”) pursuant to the authority granted to the District Official by the Ordinance to establish the terms under which the District’s Water Revenue Bonds, Series 2023 are issued and providing for the issuance of those bonds as “Parity Bonds” under the Master Declaration.

### **Section 1. Definitions**

Unless the context clearly requires otherwise, capitalized terms that are used in this Second Supplement and are defined in this Section 1 shall have the meanings defined for those terms in this Section 1, and capitalized terms that are used in this Second Supplement but are not defined in this Section 1 shall have the meanings defined for those terms in the Master Declaration.

“District” means the Tualatin Valley Water District in Washington County, Oregon, a municipal corporation of the State of Oregon.

“Master Declaration” means the Master Water System Revenue Bond Declaration dated August 2, 2019, as it has been, and in the future may be, amended and supplemented in accordance with its terms.

“Ordinance” means District Ordinance No. 01-19 enacted on April 17, 2019.

“Project” means the “System Improvements” as defined in the Ordinance.

“Second Supplement” means this Second Supplement to Master Water System Revenue Bond Declaration.

“Series 2023 Bonds” means the District’s Water Revenue Bonds, Series 2023 issued pursuant to this Second Supplement.

### **Section 2. Series 2023 Bonds as “Bonds” and “Parity Bonds” under the Master Declaration.**

- 2.1. The Series 2023 Bonds shall be “Bonds” and “Parity Bonds” as defined in the Master Declaration.
- 2.2. Pursuant to Section 7 of the Master Declaration I certify that:
  - A. No Event of Default under the Master Declaration or any Supplemental Declaration has occurred and is continuing;

- B. At the time of the issuance of the Series 2023 Bonds there is no deficiency in the Debt Service Account and all required deposits to all subaccounts in the Bond Reserve Account have been made;
- C. There has been filed with the District a certificate of the District Official stating that (1) the Coverage Revenues (adjusted as provided in Section 7.2 of the Master Declaration) for the Base Period were not less than one hundred fifteen percent (115.00%) of Maximum Annual Bond Debt Service on all then Outstanding Bonds, calculated as of the date the Series 2023 Bonds are issued and with the Series 2023 Bonds treated as Outstanding; and (2) the Net Revenues (adjusted as provided in Section 7.2 of the Master Declaration) for the Base Period were not less than one hundred twenty-five percent (125.00%) of Maximum Annual Bond Debt Service on all then Outstanding Bonds, calculated as of the date the Series 2023 Bonds are issued and with the Series 2023 Bonds treated as Outstanding; and
- D. The Series 2023 Bond proceeds shall be used to finance the Project and to pay costs incurred in connection with the issuance of the Series 2023 Bonds.

**Section 3. Basic Terms of the Series 2023 Bonds.**

3.1. Pursuant to the authority of Oregon Revised Statutes (“ORS”) Section 287A.150 and other relevant provisions of ORS Chapter 287A, the Ordinance and this Second Supplement, the District has issued its Water Revenue Bonds, Series 2023, in the aggregate principal amount of \$72,805,000. The Series 2023 Bonds shall bear interest payable on June 1 and December 1 of each year, commencing December 1, 2023, shall mature in the following years in the following principal amounts, and shall bear interest at the following rates per annum, calculated on the basis of a 360-day year consisting of twelve 30-day months:

<u>Date</u> <u>(June 1)</u>	<u>Principal</u> <u>Amount (\$)</u>	<u>Interest</u> <u>Rate (%)</u>	<u>CUSIP No.</u> <u>(Base 89855P)</u>
2028	1,425,000	5.000	CX9
2029	1,495,000	5.000	CY7
2030	1,570,000	5.000	CZ4
2031	1,650,000	5.000	DA8
2032	1,730,000	5.000	DB6
2033	1,815,000	5.000	DC4
2034	1,910,000	5.000	DD2
2035	2,005,000	5.000	DE0
2036	2,105,000	5.000	DF7
2037	2,210,000	5.000	DG5
2038	2,320,000	5.000	DH3
2039	2,435,000	5.000	DJ9
2040	2,560,000	5.000	DK6
2041	2,685,000	5.000	DL4

2042	2,820,000	5.000	DM2
2043	2,960,000	5.000	DN0
2044	3,110,000	5.000	DP5
2045	3,265,000	5.000	DQ3
2048*	10,805,000	5.000	DT7
2053*	21,930,000	5.000	DY6

\*Term Bonds

- 3.2. The Series 2023 Bonds shall be special obligations of the District, and shall be payable solely from the Net Revenues as required and as provided by the Master Declaration. The Series 2023 Bonds are not general obligations of the District and are payable solely from the amounts described in the previous sentence. The Series 2023 Bonds are not secured by the Bond Reserve Account or any subaccount therein.

**Section 4. Tax-Exempt Status of Series 2023 Bonds.**

- 4.1. The Series 2023 Bonds are tax-exempt and the District covenants not to take any action, or omit to take any action, if the taking or omitting would cause interest on the Series 2023 Bonds to become includable in gross income under the Internal Revenue Code of 1986, as amended.

**Section 5. Redemption of Series 2023 Bonds.**

- 5.1. The District is permitted to optionally redeem the Series 2023 Bonds as outlined in the Official Statement.
- 5.2. The Series 2023 Bonds are subject to mandatory prepayment as outlined in the Official Statement.
- 5.3. For as long as the Series 2023 Bonds are in book-entry only form, if fewer than all of the Series 2023 Bonds of a maturity are called for redemption, the selection of Series 2023 Bonds within a maturity to be redeemed shall be made by DTC in accordance with its operational procedures then in effect. If the Series 2023 Bonds are no longer held in book-entry only form, then the Paying Agent would select individual bonds within a maturity of the Series 2023 Bonds for redemption by lot.
- 5.4. Any notice of optional redemption to the Paying Agent or to the Owners pursuant to this section may state that the optional redemption is conditional upon receipt by the Paying Agent of moneys sufficient to pay the redemption price of such Bonds or upon the satisfaction of any other condition, and/or that such notice may be rescinded upon the occurrence of any other event, and any conditional notice so given may be rescinded at any time before payment of such redemption price if any such condition so specified is not satisfied or if any such other event occurs. Notice of such rescission or of the failure of any such condition shall be given by the Paying Agent to affected Owners as promptly as practicable upon the failure of such condition or the occurrence of such other event.

**Section 6. Form of Series 2023 Bonds.**

The Series 2023 Bonds shall be in substantially the form attached as Exhibit A and shall be signed with the facsimile or manual signature of the District Official.

[remainder of page intentionally left blank.]



Dated as of May 31, 2023.

**Tualatin Valley Water District, Oregon**



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Paul L. Matthews, Chief Financial Officer



## G. Parity Certificate and Transcript Documents

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## PARITY CERTIFICATE

**\$72,805,000**

### **Tualatin Valley Water District, Oregon Water Revenue Bonds, Series 2023**

On behalf of Tualatin Valley Water District, Oregon (the “District”), I hereby certify as follows in connection with the above-captioned bonds (the “2023 Bonds”):

1. The 2023 Bonds are being issued as Bonds and Parity Bonds under the Master Water System Revenue Bond Declaration dated August 2, 2019 (the “Master Declaration”), as supplemented and amended, including as supplemented by the Second Supplement to Master Water System Revenue Bond Declaration (the “Second Supplement” and together with the Master Declaration, the “Declaration”). Capitalized terms used but not defined in this certificate have the meanings defined for those terms in the Declaration.

2. The District previously entered into a WIFIA Loan Agreement (the “WIFIA Loan Agreement”) and related Water Revenue Bond, Series 2020, each dated as of September 15, 2020 (the “WIFIA Bond” and together with the WIFIA Loan Agreement, the “WIFIA Loan Documents”). The WIFIA Loan Documents represent a draw-down borrowing and the WIFIA Bond is a Bond under the Declaration. The District expects to request disbursements under the WIFIA Loan Documents in an aggregate amount of \$387,748,990, which represents the full amount available under the WIFIA Loan Documents. The capitalized interest on those disbursements will not exceed \$26,105,825, for a total borrowing amount of not more than \$413,854,815. The assumed debt service for the WIFIA Loan Agreement is attached.

3. In Section 2 of the Second Supplement, the District made certain representations required to issue Parity Bonds under Section 7 of the Master Declaration.

4. The Coverage Revenues (adjusted as provided in Section 7.2(e) of the Master Declaration) for the Base Period were not less than one hundred fifteen percent (115%) of Maximum Annual Bond Debt Service on all then Outstanding Bonds, calculated as of the date of the 2023 Bonds are issued and with the 2023 Bonds treated as Outstanding.

5. The Net Revenues (adjusted as provided in Section 7.2(e) of the Master Declaration) for the Base Period were not less than one hundred twenty five percent (125%) of Maximum Annual Bond Debt Service on all then Outstanding Bonds, calculated as of the date the 2023 Bonds are issued and with the 2023 Bonds treated as Outstanding.

Supporting calculations are attached to this certificate. The District agrees to not take or omit to take any action that would result in the loan amortization schedule for the WIFIA Loan and WIFIA Bond not satisfying the tests described in paragraphs (3) and (4) above.

*[Parity Certificate - signature follows]*

Dated as of the 31st day of May, 2023.

**Tualatin Valley Water District, Oregon**



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Paul L. Matthews, Chief Financial Officer

*[Parity Certificate]*

**ATTACHMENT TO PARITY CERTIFICATE**

**\$72,805,000**

**Tualatin Valley Water District, Oregon  
Water Revenue Bonds, Series 2023**

<b>Table 1 Calculation of Net Revenue and Coverage</b>	
Description	FY2022
Gross Revenue	\$85,120,991
Less Operating Expenses	(30,471,666)
Plus Adjustment per Section 7.2 <sup>1</sup>	10,800,650
Net Revenue	\$65,449,975
Max Annual Debt Service	\$20,464,940
Debt Service Coverage	3.20x

<b>Table 2 Calculation of Coverage Revenue and Coverage</b>	
Description	FY2022
Coverage Revenues	
Net Revenue	\$65,449,975
Less System Development Charges	(4,909,441)
Total Coverage Revenue	\$60,540,534
Max Annual Debt Service	\$20,464,940
Debt Service Coverage	2.96x

(1) The Declaration allows adjustment of Net Revenue and Coverage Revenue for rate increases that have been adopted by the District and are in effect. On September 21, 2022, the District's Board of Commissioners adopted Resolution 13-22 increasing water rates by 14.25% effective November 1, 2022.





## H. PERS Valuation Report

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September 2022

Tualatin Valley Water District/2842  
Oregon Public Employees Retirement System

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2021. The attached report, which is an informational supplement to the system-wide actuarial valuation report, provides you with employer-specific contribution rates that will become effective July 1, 2023. Information to assist you in preparing your required financial reporting disclosures under Statement 68 and Statement 75 of the Governmental Accounting Standards Board (GASB) will be provided separately by PERS and is not included in this report.

This report reflects the System’s benefit provisions in effect as of December 31, 2021, including Senate Bill 111 and House Bill 2906 which were enacted in June 2021. The full development of the valuation results for the Tier 1/Tier 2 State and Local Government Rate Pool (SLGRP), Oregon Public Service Retirement Plan (OPSRP), Retiree Health Insurance Account (RHIA), and Retiree Health Insurance Premium Account (RHIPA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

**If you have any questions about this report, please contact [actuarial.services@pers.oregon.gov](mailto:actuarial.services@pers.oregon.gov).**

## **Contents of Report**

The executive summary provides the basic information you need, including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Employer-specific weighted average Tier 1/Tier 2 normal cost rates,
- Transition liability or surplus balances and rate calculation,
- Side account balances, transactions, and rate relief,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/Financials/Actuarial-Financial-Information.aspx](http://www.oregon.gov/PERS/Pages/Financials/Actuarial-Financial-Information.aspx).



September 2022  
Tualatin Valley Water District/2842

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete, our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations) and which, in combination, offer a reasonable estimate of anticipated experience affecting the System. The valuation results were developed using models intended for valuations that use standard actuarial techniques.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. The System is subject to various risks that will affect the future plan liabilities and contribution requirements, including investment risk, demographic risk, and contribution risk. While the results of an actuarial valuation are based on one set of reasonable assumptions, it is almost certain that future experience will not exactly match the assumptions. The section of the system-wide valuation report titled Risk Disclosure discusses the System's risks in more detail.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in October 2021.

The actuarial computations presented in this report are for purposes of determining the contribution rates effective from July 2023 to June 2025 for System employers. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals, and with our understanding of the System benefit provisions described in the appendices of this report. Determinations for other purposes may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



September 2022  
Tualatin Valley Water District/2842

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States published by the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. Assumptions related to the healthcare trend (cost inflation) rates for the RHIPA program discussed in this report were determined by Milliman actuaries qualified in such matters.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA  
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA  
Principal and Consulting Actuary



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2021**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

STATE AND LOCAL GOVERNMENT RATE POOL

Tualatin Valley Water District -- #2842

September 2022

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## Executive Summary

Milliman has prepared this report for Tualatin Valley Water District to:

- Provide summary December 31, 2021 valuation results for the Tier 1/Tier 2 State and Local Government Rate Pool (SLGRP), Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance programs (RHIA and RHIPA),
- Provide employer-specific contribution rates effective effective July 1, 2023 through June 30, 2025, and
- Provide employer-specific information on side accounts and pre-SLGRP liabilities as of December 31, 2021.

This report summarizes the valuation results for the SLGRP, OPSRP, RHIA and RHIPA. The full development of these results can be found in the December 31, 2021 system-wide actuarial valuation report. This report develops employer-specific side account and pre-SLGRP rates and applies the results from the system-wide actuarial valuation to Tualatin Valley Water District.



# Executive Summary

## Employer Contribution Rates

SLGRP employers have the option to elect separate Tier 1/Tier 2 rates to be applied to general service and police and fire payroll or to have the default blended rate apply to all Tier 1/Tier 2 payroll.

The following table summarizes the employer contribution rates effective July 1, 2023 through June 30, 2025 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

### ***Employer Rates Effective July 1, 2023 for Tualatin Valley Water District***

	Payroll				
	Tier 1/Tier 2			OPSRP	
	Default All T1/T2 Payroll	Optional Separate Rates General Service Police & Fire		General Service	Police & Fire
<b>Pension</b>					
Normal cost rate	14.58%	14.58%	21.74%	9.89%	14.68%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.61%	12.61%	12.61%	12.61%	12.61%
OPSRP UAL rate	1.69%	1.69%	1.69%	1.69%	1.69%
Pre-SLGRP pooled liability rate	0.00%	0.00%	0.00%	0.00%	0.00%
Transition liability/(surplus) rate <sup>2</sup>	(2.66%)	(2.66%)	(2.66%)	(2.66%)	(2.66%)
Side account rate relief <sup>2</sup>	(9.27%)	(9.27%)	(9.27%)	(9.27%)	(9.27%)
Member redirect offset <sup>3</sup>	(2.40%)	(2.40%)	(2.40%)	(0.65%)	(0.65%)
<b>Net employer pension contribution rate</b>	<b>14.55%</b>	<b>14.55%</b>	<b>21.71%</b>	<b>11.61%</b>	<b>16.40%</b>
<b>Retiree Healthcare</b>					
Normal cost rate	0.04%	0.04%	0.04%	0.00%	0.00%
UAL rate	(0.04%)	(0.04%)	(0.04%)	0.00%	0.00%
<b>Net retiree healthcare rate</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>
<b>Total net employer contribution rate</b>	<b>14.55%</b>	<b>14.55%</b>	<b>21.71%</b>	<b>11.61%</b>	<b>16.40%</b>

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members, and OPSRP police and fire members.

<sup>1</sup> Includes Multnomah Fire District #10 rate and any impact of rate collar developed on page 41 of the system-wide actuarial valuation report.

<sup>2</sup> The transition liability/(surplus) rate and side account rate relief shown may be reduced such that the net pension contribution rate does not go below 0.00%.

<sup>3</sup> Redirected member contributions under Senate Bill 1049 (2.50% of payroll for Tier 1/Tier 2 and 0.75% of payroll for OPSRP) will offset employer contribution rates. Redirect does not apply to members with monthly pay below a threshold. The values shown in the table incorporate an estimate of the effect of this limitation.

# Executive Summary

## Employer Contribution Rates (continued)

### **Range of Potential Tier 1/Tier 2 UAL Contribution Rates for the July 2025 to June 2027 Biennium**

The rate collar limits changes in the Tier 1/Tier 2 UAL Rate for the rate pool, but does not limit changes in rates for individual employers related to pre-SLGRP liabilities or side accounts and does not limit the change in the normal cost rate. The table below shows the possible minimum and maximum Tier 1/Tier 2 UAL Rates for the SLGRP first effective as of July 1, 2025. The collar width, which in general is the amount the UAL Rate could increase or decrease from the current UAL Rate being paid, is 3% of pay. However, the UAL Rate is only allowed to decrease by the full collar width if the funded status (excluding side accounts) of the SLGRP is greater than or equal to 90%. The UAL Rate is not allowed to decrease at all if funded status is below 87%, and the allowable decrease is phased in for funded status levels from 87% to 90%.

For reference, the Pool's funded status excluding side accounts as of December 31, 2021 is 77%.

2023-2025 Biennium	2025-2027 Biennium	
	15.46%	<<<No higher than this
12.46%	12.46%	<<<No lower than this if December 31, 2023 funded status is 87% or lower
	9.46%	<<<No lower than this if December 31, 2023 funded status is 90% or higher

For individual employers in the SLGRP, the SLGRP rate is adjusted to reflect the individual employer's pre-SLGRP pooled liability rate, transition liability rate, and side account rate offset to determine the individual employer's net contribution rate.

### **Normal Cost Rates**

As seen on the prior page, the other large rate components are the normal cost rates for the Tier 1/Tier 2 and OPSRP programs. The normal cost rate represents the projected cost of benefits earned by current year service.

The normal cost rate in any biennium is driven by the active member demographics of the experience pooling groups in the which the employer's members participate. The active member census as of this rate-setting valuation is used to calculate the adopted 2023 - 2025 biennium normal cost rate.

Each biennium's normal cost rate is also sensitive to the investment return assumption, or assumed rate, adopted by the PERS Board for the valuation. The lower the assumed rate, the higher the normal cost rate. The normal cost rate that will be effective as of July 1, 2025 will be based on the active member demographics and investment return assumption as of December 31, 2023.

# Executive Summary

## Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

## *Pension*

In June 2012 the GASB issued Statement No. 68 (GASB 68), which replaced Statement No. 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS and is not included in this report.

## *Retiree Healthcare*

In June 2015, the GASB issued Statement 75 (GASB 75), which replaced Statement No. 45 and governs employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# Executive Summary

## Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods, or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

### *Tualatin Valley Water District*

	Actuarial Valuation as of	
	December 31, 2021	December 31, 2020
Allocated pooled SLGRP T1/T2 UAL	\$18,274,031	\$25,889,364
Allocated pre-SLGRP pooled liability/(surplus)	0	0
Transition liability/(surplus)	(1,785,949)	(2,042,240)
Allocated pooled OPSRP UAL	1,541,185	2,607,915
Side account	13,061,139	11,736,618
Net unfunded pension actuarial accrued liability	4,968,128	14,718,421
Combined valuation payroll	12,542,278	12,740,341
Net pension UAL as a percentage of payroll	40%	116%
Pre-SLGRP pooled rate	0.00%	0.00%
Transition rate	(2.66%)	(2.60%)
Side account rate relief	(9.27%)	(7.78%)
Allocated pooled RHIA UAL	(\$389,623)	(\$292,626)
Allocated pooled RHIPA UAL	\$0	\$0

In the above exhibit, UAL amounts for the various pools (SLGRP Tier 1/Tier 2 Pension, OPSRP, RHIA, and RHIPA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to the combined valuation payroll of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

RHIPA liabilities are allocated to State Agencies and the State Judiciary, the only employers participating in the RHIPA program.

# Executive Summary

## Principal Valuation Results (continued)

### SLGRP

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2021	December 31, 2020
Normal cost	\$324.1	\$350.5
Tier 1/Tier 2 valuation payroll	1,981.7	2,089.0
Normal cost rate	16.35%	16.78%
Actuarial accrued liability	\$47,155.1	\$46,382.2
Actuarial asset value	36,315.8	31,884.9
Unfunded actuarial accrued liability	10,839.3	14,497.4
Funded status	77%	69%
Combined valuation payroll	\$7,439.5	\$7,134.3
UAL as a percentage of payroll	146%	203%
UAL rate <sup>1</sup>	12.61%	13.84%
State and Community College Pre-SLGRP Pooled Liability	\$312.2	\$362.9
LGRP Pooled Liability	(136.2)	(155.8)
Total Transition Liability	(438.7)	(499.7)
Tier 1/Tier 2 Active Members		
▪ Count	20,785	23,191
▪ Average Age	54.9	54.5
▪ Average Service	23.2	22.6
▪ Average Valuation Salary (in dollars)	\$95,345	\$90,076
Tier 1/Tier 2 Dormant Members		
▪ Count	14,209	14,901
▪ Average Age	58.1	57.6
▪ Average Monthly Benefit (in dollars)	\$1,508	\$1,472
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	92,134	90,963
▪ Average Age	72.7	72.4
▪ Average Monthly Benefit (in dollars)	\$2,521	\$2,449

<sup>1</sup> The December 31, 2021 UAL rate shown for the SLGRP includes 0.15% for Multnomah Fire District #10 (0.14% at December 31, 2020). The City of Portland pays an additional 1.04% and the cities of Fairview, Gresham, Troutdale, and Wood Village pay an additional 0.15% (0.93% and 0.14% respectively at December 31, 2020).

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2021	December 31, 2020
General service normal cost	\$796.4	\$731.3
OPSRP general service valuation payroll	8,052.6	7,322.9
General service normal cost rate	9.89%	9.99%
Police and fire normal cost	\$163.3	\$152.2
OPSRP police and fire valuation payroll	1,112.7	1,032.6
Police and fire normal cost rate	14.68%	14.74%
Actuarial accrued liability	\$11,806.2	\$10,008.1
Actuarial asset value	10,251.2	7,548.8
Unfunded actuarial accrued liability	1,555.0	2,459.3
Funded status	87%	75%
Combined valuation payroll	\$12,684.1	\$12,042.7
UAL as a percentage of payroll	12%	20%
UAL rate	1.69%	2.09%

# Executive Summary

## Principal Valuation Results (continued)

### Retiree Healthcare

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2021	December 31, 2020
<b>RHIA</b>		
Normal cost	\$1.5	\$1.7
Tier 1 / Tier 2 valuation payroll	3,518.8	3,687.3
Normal cost rate	0.04%	0.05%
Actuarial accrued liability	\$369.2	\$383.6
Actuarial asset value	763.2	660.2
Unfunded actuarial accrued liability	(394.0)	(276.6)
Funded status	207%	172%
Combined valuation payroll	\$12,684.1	\$12,042.7
UAL as a percentage of payroll	(3%)	(2%)
UAL rate	(0.04%)	(0.05%)

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2021	December 31, 2020
<b>RHIPA</b>		
Normal cost	\$0.9	\$1.0
Tier 1 / Tier 2 valuation payroll	1,053.3	1,091.8
Normal cost rate	0.09%	0.09%
Actuarial accrued liability	\$45.9	\$48.0
Actuarial asset value	82.9	63.6
Unfunded actuarial accrued liability	(37.0)	(15.6)
Funded status	180%	133%
Combined valuation payroll	\$3,938.0	\$3,712.6
UAL as a percentage of payroll	(1%)	0%
UAL rate	(0.09%)	(0.09%)

RHIPA liabilities are allocated to State Agencies and the State Judiciary, the only employers participating in the RHIPA program.

# Weighted Average Tier 1/Tier 2 Normal Cost Rate

## Pension

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund the benefits.

Members of the State and Local Government Rate Pool pay a payroll-weighted average normal cost rate using the normal cost rates developed for the pool for each tier and member classification. The table below shows the calculation of the individual employer's Tier 1/Tier 2 normal cost rate by member classification and in aggregate. The employer can elect to pay the member classification rates or the aggregate rate. For purposes of this calculation, all Community Colleges are treated as a single employer.

### *Development of Total Weighted Average Tier 1/Tier 2 Normal Cost Rate*

	December 31, 2021			December 31, 2020		
	SLGRP Normal Cost Rate	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost	SLGRP Normal Cost Rate	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost
Tier 1 General Service	17.70%	\$905,741	\$160,316	18.14%	\$959,711	\$174,092
Tier 2 General Service	13.66%	3,070,281	419,400	13.87%	3,425,010	475,049
<b>Total General Service</b>		<b>3,976,022</b>	<b>579,716</b>		<b>4,384,721</b>	<b>649,141</b>
Tier 1 Police & Fire	23.12%	0	0	23.86%	0	0
Tier 2 Police & Fire	21.37%	0	0	21.58%	0	0
<b>Total Police &amp; Fire</b>		<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>
<b>Total</b>		<b>\$3,976,022</b>	<b>\$579,716</b>		<b>\$4,384,721</b>	<b>\$649,141</b>
<b>Total normal cost rate</b>						
<b>General Service</b>			<b>14.58%</b>			<b>14.80%</b>
<b>Police &amp; Fire</b>			<b>21.74%</b>			<b>22.14%</b>
<b>Aggregate (Default)</b>			<b>14.58%</b>			<b>14.80%</b>

An SLGRP employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost rate of the SLGRP as calculated in the system-wide actuarial valuation report.



## Transition Liability Information

### Outstanding Balance of Transition Liability/(Surplus)

Upon joining the SLGRP, a transition liability or surplus was calculated to ensure that each employer entered the pool on a comparable basis. The transition liability is maintained separately from the SLGRP, and is reduced by contributions and increased for interest charges at the assumed interest rate. The table below shows the reconciliation of the transition liability or surplus from the last valuation to the current valuation.

	<b>Transition Liability</b>
1. Transition liability/(surplus) as of December 31, 2020	(\$2,042,240)
2. January 1, 2021 through June 30, 2021 <sup>1</sup>	
A. Transition liability/(surplus) rate	(3.19%)
B. Actual employer payroll	5,703,461
C. Payment to transition liability/(surplus)	(181,940)
3. July 1, 2021 through December 31, 2021 <sup>1</sup>	
A. Transition liability/(surplus) rate	(2.77%)
B. Actual employer payroll	6,845,732
C. Payment to transition liability/(surplus)	(189,627)
4. Supplemental payment to transition liability	0
5. Interest	(115,276)
6. Adjustment due to merged, spun-off, or allocated employers	0
<b>7. Transition liability/(surplus) as of December 31, 2021</b>	
<b>(1. - 2C. - 3C. - 4. + 5. + 6.)</b>	<b>(\$1,785,949)</b>

<sup>1</sup> Transition liability or surplus rates shown are those paid on Tier 1/Tier 2 payroll for the indicated periods. For some surplus employers, this rate may differ from the rate paid on OPSRP general service or OPSRP police and fire payroll. In those cases, the payment to transition (surplus) shown below is the payment reflecting the rates on different payroll.

### Development of Transition Liability or Surplus Rate

The rate adjustment attributable to a transition liability or surplus is determined by amortizing the liability or surplus on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For employers joining the SLGRP prior to December 31, 2009, the fixed period ends December 31, 2027. For all others, the fixed period ends 18 years after the date the employer joined the pool.

	<b>December 31, 2021</b>	<b>December 31, 2020</b>
1. Total transition liability/(surplus)	(1,785,949)	(2,042,240)
2. Combined valuation payroll	12,542,278	12,740,341
3. Regular amortization factor	5.363	6.158
4. <b>Total transition liability/(surplus) rate</b>	<b>(2.66%)</b>	<b>(2.60%)</b>

# Side Account Information

## Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

	New	Continuing	Total
<b>1. Side account as of December 31, 2020</b>	N/A	<b>\$11,736,618</b>	<b>\$11,736,618</b>
2. Deposits during 2021			
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2021		(1,024,804)	(1,024,804)
5. Side account earnings during 2021		2,350,325	2,350,325
<b>6. Side account as of December 31, 2021</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$13,061,139</b>	<b>\$13,061,139</b>

# Side Account Information

## Side Account Balances

	December 31, 2021	December 31, 2020
Side Account 1	\$898,399	\$887,477
Side Account 2	12,162,739	10,849,141
Side Account 3	0	0
Side Account 4	0	0
Side Account 5	0	0
Side Account 6	0	0
<b>Total</b>	<b>\$13,061,139</b>	<b>\$11,736,618</b>

## Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the default fixed period ends 18 years after the first rate-setting valuation following its creation, though employers can select a shorter period under certain specified circumstances. For employers with more than one side account, the total side account rate is determined by calculating the rate on each side account separately and adding the rates together.

	December 31, 2021			December 31, 2020		
	Combined valuation payroll			Combined valuation payroll		
		\$12,542,278			\$12,740,341	
	Side account balance	Amortization factor	Side account rate	Side account balance	Amortization factor	Side account rate
1.	\$898,399	5.363	(1.34%)	\$887,477	6.158	(1.13%)
2.	12,162,739	12.232	(7.93%)	10,849,141	12.802	(6.65%)
3.	0		0.00%	0		0.00%
4.	0		0.00%	0		0.00%
5.	0		0.00%	0		0.00%
6.	0		0.00%	0		0.00%
<b>Total</b>	<b>\$13,061,139</b>		<b>(9.27%)</b>	<b>\$11,736,618</b>		<b>(7.78%)</b>

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2021 valuation can be found in the system-wide actuarial valuation report.

## Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10-year period. If a Retiree Healthcare program is over 100% funded the actuarial surplus is amortized over a rolling 20-year period over Tier 1/Tier 2 payroll.</p> <p>Senate Bill 1049 was signed into law in June 2019 and required a one-time re-amortization of Tier 1/Tier 2 UAL over a closed 22-year period at the December 31, 2019 rate-setting actuarial valuation, which set actuarially determined contribution rates for the 2021-2023 biennium. Future Tier 1/Tier 2 gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20-year period.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>The contribution rate stabilization method, also referred to as the rate collar, is applied separately to OPSRP and to each Tier 1/Tier 2 experience sharing pool (State and Local Government Rate Pool, School Districts) and independent employer. The UAL Rate contribution rate component is confined to a collared range based on the prior biennium's collared UAL Rate and a defined collar width. The UAL Rate is not allowed to decrease if the funded status of the rate pool or employer is 87% or lower. The rate collar does not limit the change in the normal cost rate or changes for individual employers related to side accounts.</p>

## Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

<i>Investment return</i>	6.90% compounded annually on system assets.
<i>Interest crediting</i>	<p>6.90% compounded annually on members' regular account balances.</p> <p>6.90% compounded annually on members' variable account balances.</p>
<i>Inflation</i>	2.40% per year.
<i>Payroll Growth</i>	3.40% per year.
<i>Healthcare cost trend</i>	Ranging from 5.5% in 2022 to 3.9% in 2074.
<i>Administrative Expenses</i>	\$59 million per year is added to the total system normal cost and allocated between Tier 1/Tier 2 and OPSRP based on valuation payroll.

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2020 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2020 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide actuarial valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2020 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide actuarial valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions reflected since the December 31, 2020 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

# Glossary

## **Actuarial Accrued Liability**

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

## **Actuarial Asset Value**

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

## **Actuarial Assumptions**

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement, rates of investment earnings, and other relevant items.

## **Actuarial Cost Method**

Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

## **Actuarial Gain or (Loss)**

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

## **Combined Valuation Payroll**

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

## **Employer Contribution Rate**

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

## **Funded Status**

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

## **Normal Cost**

The annual cost allocated to the current year under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

## **OPSRP Valuation Payroll**

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

# Glossary

## **Pre-SLGRP Liability/(Surplus)**

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

## **Pre-SLGRP Pooled Liability/(Surplus)**

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

## **Present Value**

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

## **Rate Collar**

A contribution rate setting methodology that defines the maximum biennium-to-biennium change in the UAL contribution rate for a given experience-sharing pool.

## **Required Supplementary Information (RSI)**

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

## **Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)**

The accounting standard governing a state or local governmental employer’s accounting for pensions. The standard replaced GASB 27 for fiscal years beginning after June 15, 2014.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions. The standard replaced GASB Statement 45 for fiscal years beginning after June 15, 2017.

## **Tier 1/Tier 2 Valuation Payroll**

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rates.

## **Transition Liability/(Surplus)**

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool. The initial balance of liability or surplus is calculated at the time an employer joins the pool. That balance is then amortized over time via employer contribution rate charges (for a liability) or rate offsets (for a surplus).

## **Unfunded Accrued Liability (UAL)**

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.





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## I. Forecast Model Summary Results

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Table 1  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Categorical CIP Summary (Escalated)

Category	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
WWSP	\$309,028,422	\$139,156,101	\$44,275,863	\$7,314,796	\$0	\$0
JWC	675,052	1,344,623	1,358,846	1,913,872	1,053,788	1,500,020
TVWD Source	2,822,600	1,842,500	498,500	4,305,000	0	0
Storage	12,430,400	8,543,500	0	0	1,755,000	3,857,400
Pumping	4,425,800	11,564,100	1,551,900	1,204,900	1,732,400	8,851,000
Pipelines	53,841,783	16,357,366	13,002,608	17,622,470	18,747,030	19,983,500
PRVs/Vaults	1,094,000	1,185,500	2,133,000	295,000	399,000	930,500
Facilities	895,800	2,180,700	554,000	914,700	2,069,150	734,000
Fleet	1,466,500	422,000	887,000	918,000	950,000	983,500
IT	0	0	0	0	0	0
Meters/Svcs	8,850,500	8,914,500	9,739,000	10,083,500	2,123,500	2,198,500
Other/Undefined	1,844,000	1,908,500	1,975,500	2,044,500	2,116,000	2,190,000
Capital Outlays from Budget	500,000	522,500	546,013	570,583	596,259	623,091
<b>Totals</b>	<b>\$397,874,857</b>	<b>\$193,941,890</b>	<b>\$76,522,231</b>	<b>\$47,187,321</b>	<b>\$31,542,128</b>	<b>\$41,851,511</b>
Check	OK	OK	OK	OK	OK	OK

Table 1  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Categorical CIP Summary (Escalated)

Category	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
WWSP	\$2,308,229	\$1,855,359	\$17,036,171	\$18,580,889	\$6,578,937	\$19,392,404
JWC	1,381,482	1,458,073	1,603,908	1,521,576	2,468,373	3,470,324
TWWD Source	0	0	0	0	0	0
Storage	74,900	77,600	3,895,300	12,143,100	86,000	89,000
Pumping	191,000	197,500	1,175,750	1,216,500	1,259,500	1,303,500
Pipelines	17,037,550	25,173,200	35,516,430	51,446,770	40,570,700	37,856,230
PRVs/Vaults	827,000	1,053,500	886,000	917,000	949,000	982,000
Facilities	377,750	391,000	404,650	418,850	433,500	448,650
Fleet	1,020,000	1,055,000	1,090,000	1,130,000	1,170,000	1,210,000
IT	0	0	0	0	0	0
Meters/Svcs	2,198,500	2,274,000	2,355,000	2,436,500	2,523,000	2,610,500
Other/Undefined	11,333,500	11,730,000	12,140,500	12,565,500	13,005,500	13,460,500
Capital Outlays from Budget	651,130	680,431	711,050	743,048	776,485	811,427
Totals	\$37,401,041	\$45,945,663	\$76,814,760	\$103,119,732	\$69,820,994	\$81,634,534
Check	OK	OK	OK	OK	OK	OK

Table 1  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Categorical CIP Summary (Escalated)

Category	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
WWSP	\$43,629,247	\$1,881,350	\$0	\$0	\$94,080	\$13,653,048
JWC	3,043,242	1,971,003	3,713,101	4,006,679	3,180,545	4,754,654
TWWD Source	0	0	0	0	0	0
Storage	3,807,100	3,940,300	4,832,200	7,341,000	4,368,500	4,522,000
Pumping	1,349,000	1,396,500	1,445,500	1,495,500	1,548,000	1,602,000
Pipelines	36,551,870	31,284,620	23,865,990	47,222,450	53,574,550	24,737,000
PRVs/Vaults	1,015,000	1,050,000	1,090,000	1,125,000	1,165,000	1,205,000
Facilities	464,350	480,600	497,450	514,850	532,850	551,500
Fleet	1,250,000	1,295,000	1,340,000	1,385,000	1,435,000	1,485,000
IT	0	0	0	0	0	0
Meters/Svcs	2,703,000	2,796,000	2,894,500	2,998,500	3,103,000	3,213,000
Other/Undefined	13,931,500	14,419,500	14,924,000	15,446,500	15,987,000	16,546,500
Capital Outlays from Budget	847,941	886,098	925,972	967,641	1,011,185	1,056,688
<b>Totals</b>	<b>\$108,592,250</b>	<b>\$61,400,971</b>	<b>\$55,528,713</b>	<b>\$82,503,120</b>	<b>\$85,999,711</b>	<b>\$73,326,390</b>
Check	OK	OK	OK	OK	OK	OK

Table 1  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Categorical CIP Summary (Escalated)

Category	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
WWSP	\$7,172	\$0	\$28,815	\$7,830,568	\$88,413,531	\$40,134,505
JWC	6,859,353	6,896,642	60,000,478	856,100	886,050	917,050
TWWD Source	0	0	0	0	0	0
Storage	6,220,000	12,203,500	9,338,500	59,339,000	5,370,500	6,698,500
Pumping	1,658,500	1,716,500	1,776,500	1,838,500	1,903,000	1,969,500
Pipelines	21,035,000	34,364,500	23,461,000	28,940,500	24,368,500	29,014,000
PRVs/Vaults	1,250,000	1,295,000	1,340,000	1,385,000	1,435,000	1,485,000
Facilities	570,800	590,800	611,500	632,900	655,050	677,950
Fleet	1,540,000	1,590,000	1,650,000	1,705,000	1,765,000	1,825,000
IT	0	0	0	0	0	0
Meters/Svcs	3,323,500	3,439,500	3,561,000	3,683,500	3,811,000	3,944,500
Other/Undefined	17,125,500	17,725,000	18,345,500	18,987,500	19,652,000	20,340,000
Capital Outlays from Budget	1,104,239	1,153,930	1,205,857	1,260,121	1,316,826	1,376,083
<b>Totals</b>	<b>\$60,694,064</b>	<b>\$80,975,372</b>	<b>\$121,319,150</b>	<b>\$126,458,688</b>	<b>\$149,576,457</b>	<b>\$108,382,088</b>
Check	OK	OK	OK	OK	OK	OK



TVWD Forecast Model Summary

Table 1  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Categorical CIP Summary (Escalated)

Category	FY2048	FY2049	FY2050	FY2051	FY2022-51 Totals
WWSP	\$4,148,000	\$0	\$5,988,486	\$863,935	\$945,702,863
JWC	7,828,384	8,102,407	8,386,207	8,679,630	150,530,862
TVWD Source	0	0	0	0	15,274,740
Storage	16,718,500	12,655,000	57,658,500	6,224,000	265,624,180
Pumping	2,038,500	2,110,000	2,183,500	2,260,000	63,905,420
Pipelines	23,608,000	24,430,000	25,283,000	26,171,500	920,485,146
PRVs/Vaults	1,535,000	1,590,000	1,645,000	1,705,000	33,570,500
Facilities	701,700	726,250	751,650	777,950	20,380,510
Fleet	1,890,000	1,955,000	2,025,000	2,095,000	38,532,000
IT	0	0	0	0	4,416,000
Meters/Svcs	4,083,500	4,228,500	4,374,000	4,530,000	116,631,500
Other/Undefined	21,052,000	21,788,500	22,551,000	23,340,500	379,367,350
Capital Outlays from Budget	1,438,007	1,502,717	1,570,340	1,641,005	26,996,667
<b>Totals</b>	<b>\$85,041,591</b>	<b>\$79,088,374</b>	<b>\$132,416,683</b>	<b>\$78,288,520</b>	<b>\$2,981,417,737</b>
Check	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 2  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Funding Sources for Improvements

Description	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
<b>Funding Summary (after Calibration)</b>							
Capital Projects & Outlays from Cash/Reserves	\$170,774,652	\$62,182,647	\$67,304,797	\$42,429,531	\$29,317,708	\$35,484,198	\$33,272,946
Projects funded from Debt Proceeds (incl fund Int.)	222,590,903	119,800,323	0	3,512	0	0	(0)
SDC-Funded Capital Projects	4,509,302	4,397,313	4,279,041	4,154,278	1,624,419	5,767,313	4,128,095
Grant Funding	0	7,561,607	4,938,393	600,000	600,000	600,000	0
<b>Totals</b>	<b>\$397,874,857</b>	<b>\$193,941,890</b>	<b>\$76,522,231</b>	<b>\$47,187,321</b>	<b>\$31,542,128</b>	<b>\$41,851,511</b>	<b>\$37,401,041</b>
<b>Funding Split (after Calibration)</b>							
Capital Projects & Outlays from Cash/Reserves	42.9%	32.1%	88.0%	89.9%	92.9%	84.8%	89.0%
Projects funded from Debt Proceeds (incl fund Int.)	55.9%	61.8%	0.0%	0.0%	0.0%	0.0%	0.0%
SDC-Funded Capital Projects	1.1%	2.3%	5.6%	8.8%	5.1%	13.8%	11.0%
Grant Funding	0.0%	3.9%	6.5%	1.3%	1.9%	1.4%	0.0%
<b>Totals</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Check	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 2  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Funding Sources for Improvements

Description	FY2031	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037
<b>Funding Summary (after Calibration)</b>							
Capital Projects & Outlays from Cash/Reserves	\$42,526,645	\$73,621,487	\$100,158,724	\$67,102,789	\$79,170,028	\$106,392,679	\$59,477,917
Projects funded from Debt Proceeds (incl fund Int.)	0	(0)	0	(0)	0	(0)	0
SDC-Funded Capital Projects	3,419,018	3,193,272	2,961,008	2,718,205	2,464,506	2,199,571	1,923,054
Grant Funding	0	0	0	0	0	0	0
<b>Totals</b>	<b>\$45,945,663</b>	<b>\$76,814,760</b>	<b>\$103,119,732</b>	<b>\$69,820,994</b>	<b>\$81,634,534</b>	<b>\$108,592,250</b>	<b>\$61,400,971</b>
<b>Funding Split (after Calibration)</b>							
Capital Projects & Outlays from Cash/Reserves	92.6%	95.8%	97.1%	96.1%	97.0%	98.0%	96.9%
Projects funded from Debt Proceeds (incl fund Int.)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SDC-Funded Capital Projects	7.4%	4.2%	2.9%	3.9%	3.0%	2.0%	3.1%
Grant Funding	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Totals</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Check	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 2  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Funding Sources for Improvements

Description	FY2038	FY2039	FY2040	FY2041	FY2042	FY2043	FY2044
<b>Funding Summary (after Calibration)</b>							
Capital Projects & Outlays from Cash/Reserves	\$53,894,118	\$81,169,290	\$84,979,331	\$72,632,532	\$60,340,196	\$80,975,372	\$121,319,150
Projects funded from Debt Proceeds (incl fund Int.)	(0)	0	(0)	0	(0)	0	(0)
SDC-Funded Capital Projects	1,634,596	1,333,830	1,020,380	693,858	353,868	0	0
Grant Funding	0	0	0	0	0	0	0
<b>Totals</b>	<b>\$55,528,713</b>	<b>\$82,503,120</b>	<b>\$85,999,711</b>	<b>\$73,326,390</b>	<b>\$60,694,064</b>	<b>\$80,975,372</b>	<b>\$121,319,150</b>
<b>Funding Split (after Calibration)</b>							
Capital Projects & Outlays from Cash/Reserves	97.1%	98.4%	98.8%	99.1%	99.4%	100.0%	100.0%
Projects funded from Debt Proceeds (incl fund Int.)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SDC-Funded Capital Projects	2.9%	1.6%	1.2%	0.9%	0.6%	0.0%	0.0%
Grant Funding	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Totals</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Check	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 2  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Funding Sources for Improvements

Description	FY2045	FY2046	FY2047	FY2048	FY2049	FY2050	FY2051
<b>Funding Summary (after Calibration)</b>							
Capital Projects & Outlays from Cash/Reserves	\$126,458,688	\$149,576,457	\$108,382,088	\$85,041,591	\$79,088,374	\$132,416,683	\$78,288,520
Projects funded from Debt Proceeds (incl fund Int.)	0	(0)	0	(0)	0	(0)	0
SDC-Funded Capital Projects	0	0	0	0	0	0	0
Grant Funding	0	0	0	0	0	0	0
<b>Totals</b>	<b>\$126,458,688</b>	<b>\$149,576,457</b>	<b>\$108,382,088</b>	<b>\$85,041,591</b>	<b>\$79,088,374</b>	<b>\$132,416,683</b>	<b>\$78,288,520</b>
<b>Funding Split (after Calibration)</b>							
Capital Projects & Outlays from Cash/Reserves	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Projects funded from Debt Proceeds (incl fund Int.)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SDC-Funded Capital Projects	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grant Funding	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Totals</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Check	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 3  
 Tuatatin Valley Water District  
 Financial Strategy Summary  
 Projected LTD Sizing & Debt Service Assumptions

	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
<b>PROJECTED DEBT ISSUE SIZING</b>								
Total Cost of Debt-Eligible Projects	\$397,374,857	\$193,419,390	\$75,976,218	\$46,616,738	\$30,945,868	\$41,228,420	\$36,749,911	\$45,265,232
Total Debt-Eligible Capital Project Costs (after other funding)	392,865,555	133,105,622	66,758,785	41,862,460	28,721,449	34,861,107	32,621,816	41,846,214
<b>Issue Proceeds, Costs, &amp; Reserves Estimates</b>								
Bond Proceeds Requested	\$0	\$119,800,323	\$0	\$0	\$0	\$0	\$0	\$0
Issuance Costs	0.75%	0.75%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Reserve Req. Selected: Minimum of 3-Prong Test	0.00%	7.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Rev. Bonds Issue Sizing	\$0	\$130,000,000	\$0	\$0	\$0	\$0	\$0	\$0
<b>Summary of Costs and Reserves by Issue</b>								
Issuance Costs	\$0	\$975,000	\$0	\$0	\$0	\$0	\$0	\$0
Reserve Requirement	0	9,224,677	0	0	0	0	0	0
Proceeds Used in model forecast	\$0	\$119,800,323	\$0	\$0	\$0	\$0	\$0	\$0
LTD Proceeds Used in model forecast	\$0	\$119,800,323	\$0	\$0	\$0	\$0	\$0	\$0
Difference recouped from (or added to) Rates/Reserves	0	(0)	0	0	0	0	0	0
<b>DEBT SERVICE FORECASTING</b>								
<b>Debt Service Requirements</b>								
Term (Years)	30	30	30	30	30	30	30	30
Interest Rate	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
<b>Advanced Debt Service Assumptions</b>								
Deferred Payment (years)	0	0	0	0	0	0	0	0
Interest Only Pmt. (years)	4	3	2	1	0	0	0	0
DS Schedule known & entered in Table 5 Below	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
<b>Advanced Debt Service Assumptions</b>								
<b>New Debt Service</b>								
Annual Debt Service Costs	\$0	\$8,944,701	\$0	\$0	\$0	\$0	\$0	\$0
Accumulated Debt Service	3,650,362	7,215,250	10,790,250	10,790,250	14,289,927	14,288,677	14,288,927	14,290,427
Check Proceeds	OK	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 3  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Projected LTD Sizing & Debt Service Assumptions

	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY2039	FY2040
<b>PROJECTED DEBT ISSUE SIZING</b>									
Total Cost of Debt-Eligible Projects	\$76,103,709	\$102,376,685	\$69,044,510	\$80,823,108	\$107,744,309	\$60,514,873	\$54,602,741	\$81,535,479	\$84,988,526
Total Debt-Eligible Capital Project Costs (after other funding)	72,910,437	99,415,677	66,326,305	78,358,602	105,544,738	58,591,819	52,968,145	80,201,649	83,968,146
Issue Proceeds, Costs, & Reserves Estimates									
Bond Proceeds Requested	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Issuance Costs	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Reserve Req. Selected: Minimum of 3-Prong Test	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Rev. Bonds Issue Sizing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Summary of Costs and Reserves by Issue									
Issuance Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reserve Requirement	0	0	0	0	0	0	0	0	0
Proceeds Used in model forecast	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
LTD Proceeds Used in model forecast	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Difference recouped from (or added to) Rates/Reserves	0	0	0	0	0	0	0	0	0
<b>DEBT SERVICE FORECASTING</b>									
Debt Service Requirements									
Term (Years)	30	30	30	30	30	30	30	30	30
Interest Rate	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
Advanced Debt Service Assumptions									
Deferred Payment (years)	0	0	0	0	0	0	0	0	0
Interest Only Pmt. (years)	0	0	0	0	0	0	0	0	0
DS Schedule known & entered in Table 5 Below	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
Advanced Debt Service Assumptions									
New Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Annual Debt Service Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Accumulated Debt Service	14,287,927	14,286,427	14,290,677	14,290,177	14,289,927	14,289,677	14,289,177	14,288,177	14,291,427
Check Proceeds	OK	OK	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 3  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Projected LTD Sizing & Debt Service Assumptions

	FY2041	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047	FY2048	FY2049
<b>PROJECTED DEBT ISSUE SIZING</b>									
Total Cost of Debt-Eligible Projects	\$71,028,202	\$59,589,825	\$79,821,442	\$120,113,293	\$125,198,568	\$148,259,631	\$107,006,005	\$83,603,584	\$77,585,657
Total Debt-Eligible Capital Project Costs (after other funding)	70,334,343	59,235,957	79,821,442	120,113,293	125,198,568	148,259,631	107,006,005	83,603,584	77,585,657
Issue Proceeds, Costs, & Reserves Estimates									
Bond Proceeds Requested	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Issuance Costs	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Reserve Req. Selected: Minimum of 3-Prong Test	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Rev. Bonds Issue Sizing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Summary of Costs and Reserves by Issue									
Issuance Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reserve Requirement	0	0	0	0	0	0	0	0	0
Proceeds Used in model forecast	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
LTD Proceeds Used in model forecast	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Difference recouped from (or added to) Rates/Reserves	0	0	0	0	0	0	0	0	0
<b>DEBT SERVICE FORECASTING</b>									
Debt Service Requirements									
Term (Years)	30	30	30	30	30	30	30	30	30
Interest Rate	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
Advanced Debt Service Assumptions									
Deferred Payment (years)	0	0	0	0	0	0	0	0	0
Interest Only Pmt. (years)	0	0	0	0	0	0	0	0	0
DS Schedule known & entered in Table 5 Below	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
Advanced Debt Service Assumptions									
New Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Annual Debt Service Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Accumulated Debt Service	14,288,427	14,289,177	14,288,177	14,290,177	14,289,677	14,286,427	14,290,177	14,290,177	14,291,177
Check Proceeds	OK	OK	OK	OK	OK	OK	OK	OK	OK



TVWD Forecast Model Summary

Table 3  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Projected LTD Sizing & Debt Service Assumptions

	FY2050	FY2051
<b>PROJECTED DEBT ISSUE SIZING</b>		
Total Cost of Debt-Eligible Projects	\$124,866,344	\$76,647,515
Total Debt-Eligible Capital Project Costs (after other funding)	124,866,344	76,647,515
Issue Proceeds, Costs, & Reserves Estimates		
Bond Proceeds Requested	\$0	\$0
Issuance Costs	1.50%	1.50%
Reserve Req. Selected: Minimum of 3-Prong Test	0.00%	0.00%
Rev. Bonds Issue Sizing	\$0	\$0
Summary of Costs and Reserves by Issue		
Issuance Costs	\$0	\$0
Reserve Requirement	0	0
Proceeds Used in model forecast	\$0	\$0
LTD Proceeds Used in model forecast	\$0	\$0
Difference recouped from (or added to) Rates/Reserves	0	0
<b>DEBT SERVICE FORECASTING</b>		
Debt Service Requirements		
Term (Years)	30	30
Interest Rate	5.50%	5.50%
Advanced Debt Service Assumptions		
Deferred Payment (years)	0	0
Interest Only Pmt. (years)	0	0
DS Schedule known & entered in Table 5 Below	FALSE	FALSE
Advanced Debt Service Assumptions		
New Debt Service		
Annual Debt Service Costs	\$0	\$0
Accumulated Debt Service	14,287,677	14,289,427
Check Proceeds	OK	OK

TVWD Forecast Model Summary

Table 4  
 Tuolumne Valley Water District  
 Financial Strategy Summary  
 WIFIA Loan Sizing & Debt Service Assumptions

	Totals	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
WIFIA Proceeds and Ratio based on TVWD Cost Shares								
WWSP Project Costs	\$790,824,470							
EPA WIFIA Issuance Costs	500,000							
Total WWSP/WIFIA Costs	\$791,324,470							
Less: Ineligible Costs	0							
Total Eligible WWSP/WIFIA Costs	\$791,324,470							
WIFIA Proceeds Requests	\$387,748,990	\$0	\$243,642,472	\$144,106,518	\$0	\$0	\$0	NA
WIFIA %	49.00%							
WIFIA Loan Sizing								
WIFIA Proceeds	\$387,748,990	\$0	\$243,642,472	\$144,106,518	\$0	\$0	\$0	\$0
Capitalized Interest on Proceeds	TRUE	7,882,443	9,485,406	8,101,642	0	0	0	NA
WIFIA Debt	\$413,218,481	\$7,882,443	\$253,127,878	\$152,208,160	\$0	\$0	\$0	\$0
Debt Service Requirements								
# of Level Payments	67							
Interest Rate	1.35%							
Annual Repayment (beginning FY2027)	\$15,374,514							

Table 5  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Total Annual Debt Service and Balance Summary

Description	Subject to Req?	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
<b>Projected Debt Service</b>							
Future Revenue Bonds	TRUE	\$3,650,362	\$7,215,250	\$10,790,250	\$10,790,250	\$14,289,927	\$14,288,677
WIFIA Interest-only	TRUE	0	0	0	0	0	0
WIFIA Loan	TRUE	0	0	0	0	7,687,257	15,374,514
<b>Total Debt Service Subject to Coverage</b>		<b>\$3,650,362</b>	<b>\$7,215,250</b>	<b>\$10,790,250</b>	<b>\$10,790,250</b>	<b>\$21,977,184</b>	<b>\$29,663,191</b>
<b>Total Interest Expense</b>		<b>\$3,650,362</b>	<b>\$7,215,250</b>	<b>\$10,790,250</b>	<b>\$10,790,250</b>	<b>\$13,550,948</b>	<b>\$16,052,248</b>
<b>Ending Debt Balances</b>							
Future Revenue Bonds		\$72,805,000	\$202,805,000	\$202,805,000	\$202,805,000	\$199,276,796	\$195,561,326
WIFIA Loan		0	0	0	0	408,320,449	398,424,976
<b>Total Ending Debt Balances</b>		<b>\$72,805,000</b>	<b>\$202,805,000</b>	<b>\$202,805,000</b>	<b>\$202,805,000</b>	<b>\$607,597,245</b>	<b>\$593,986,302</b>

Table 5  
 Tuatatin Valley Water District  
 Financial Strategy Summary  
 Total Annual Debt Service and Balance Summary

Description	Subject to Req?	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
<b>Projected Debt Service</b>							
Future Revenue Bonds	TRUE	\$14,288,927	\$14,290,427	\$14,287,927	\$14,286,427	\$14,290,677	\$14,290,177
WIFIA Interest-only	TRUE	0	0	0	0	0	0
WIFIA Loan	TRUE	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514
<b>Total Debt Service Subject to Coverage</b>		<b>\$29,663,441</b>	<b>\$29,664,941</b>	<b>\$29,662,441</b>	<b>\$29,660,941</b>	<b>\$29,665,191</b>	<b>\$29,664,691</b>
<b>Total Interest Expense</b>		<b>\$15,719,653</b>	<b>\$15,374,589</b>	<b>\$15,016,398</b>	<b>\$14,644,647</b>	<b>\$14,258,633</b>	<b>\$13,857,377</b>
<b>Ending Debt Balances</b>							
Future Revenue Bonds		\$191,647,050	\$187,522,066	\$183,179,087	\$178,605,417	\$173,782,935	\$168,703,063
WIFIA Loan		388,395,464	378,230,097	367,927,033	357,484,409	346,900,334	336,172,891
<b>Total Ending Debt Balances</b>		<b>\$580,042,514</b>	<b>\$565,752,163</b>	<b>\$551,106,120</b>	<b>\$536,089,827</b>	<b>\$520,683,269</b>	<b>\$504,875,955</b>

Table 5  
 Tuatatin Valley Water District  
 Financial Strategy Summary  
 Total Annual Debt Service and Balance Summary

Description	Subject to Req?	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
<b>Projected Debt Service</b>							
Future Revenue Bonds	TRUE	\$14,289,927	\$14,289,677	\$14,289,177	\$14,288,177	\$14,291,427	\$14,288,427
WIFIA Interest-only	TRUE	0	0	0	0	0	0
WIFIA Loan	TRUE	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514
<b>Total Debt Service Subject to Coverage</b>		<b>\$29,664,441</b>	<b>\$29,664,191</b>	<b>\$29,663,691</b>	<b>\$29,662,691</b>	<b>\$29,665,941</b>	<b>\$29,662,941</b>
<b>Total Interest Expense</b>		<b>\$13,440,374</b>	<b>\$13,006,844</b>	<b>\$12,555,977</b>	<b>\$12,086,934</b>	<b>\$11,598,842</b>	<b>\$11,090,547</b>
<b>Ending Debt Balances</b>							
Future Revenue Bonds		\$163,351,749	\$157,714,431	\$151,776,020	\$145,520,859	\$138,927,701	\$131,984,668
WIFIA Loan		325,300,140	314,280,110	303,110,808	291,790,212	280,316,272	268,686,911
<b>Total Ending Debt Balances</b>		<b>\$488,651,888</b>	<b>\$471,994,541</b>	<b>\$454,886,828</b>	<b>\$437,311,071</b>	<b>\$419,243,972</b>	<b>\$400,671,579</b>

Table 5  
 Tuatatin Valley Water District  
 Financial Strategy Summary  
 Total Annual Debt Service and Balance Summary

Description	Subject to Req?	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
<b>Projected Debt Service</b>							
Future Revenue Bonds	TRUE	\$14,289,177	\$14,288,177	\$14,290,177	\$14,289,677	\$14,286,427	\$14,290,177
WIFIA Interest-only	TRUE	0	0	0	0	0	0
WIFIA Loan	TRUE	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514
<b>Total Debt Service Subject to Coverage</b>		<b>\$29,663,691</b>	<b>\$29,662,691</b>	<b>\$29,664,691</b>	<b>\$29,664,191</b>	<b>\$29,660,941</b>	<b>\$29,664,691</b>
<b>Total Interest Expense</b>		<b>\$10,561,359</b>	<b>\$10,010,050</b>	<b>\$9,435,603</b>	<b>\$8,836,709</b>	<b>\$8,212,267</b>	<b>\$7,561,127</b>
<b>Ending Debt Balances</b>							
Future Revenue Bonds		\$124,669,224	\$116,963,131	\$108,842,413	\$100,287,317	\$91,277,264	\$81,780,810
WIFIA Loan		256,900,023	244,953,476	232,845,106	220,572,721	208,134,100	195,526,991
<b>Total Ending Debt Balances</b>		<b>\$381,569,248</b>	<b>\$361,916,607</b>	<b>\$341,687,519</b>	<b>\$320,860,038</b>	<b>\$299,411,364</b>	<b>\$277,307,801</b>

Table 5  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Total Annual Debt Service and Balance Summary

Description	Subject to Req?	FY2048	FY2049	FY2050	FY2051
<b>Projected Debt Service</b>					
Future Revenue Bonds	TRUE	\$14,290,177	\$14,291,177	\$14,287,677	\$14,289,427
WIFIA Interest-only	TRUE	0	0	0	0
WIFIA Loan	TRUE	15,374,514	15,374,514	15,374,514	15,374,514
<b>Total Debt Service Subject to Coverage</b>		<u>\$29,664,691</u>	<u>\$29,665,691</u>	<u>\$29,662,191</u>	<u>\$29,663,941</u>
<b>Total Interest Expense</b>		\$6,881,593	\$6,172,415	\$5,432,039	\$4,659,105
<b>Ending Debt Balances</b>					
Future Revenue Bonds		\$71,775,592	\$61,233,279	\$50,129,519	\$38,428,879
WIFIA Loan		182,749,111	169,798,148	156,671,757	143,367,561
<b>Total Ending Debt Balances</b>		<u>\$254,524,703</u>	<u>\$231,031,427</u>	<u>\$206,801,275</u>	<u>\$181,796,440</u>

TVWD Forecast Model Summary

Table 6  
Tualatin Valley Water District  
Financial Strategy Summary  
Summary O&M Forecast

	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
<b>Water Costs</b>												
Portland	\$11,243,200	\$12,003,100	\$11,577,306	\$86,252	\$90,134	\$94,190	\$98,428	\$102,858	\$107,486	\$112,323	\$117,378	\$122,660
JWC	3,193,900	3,083,500	2,988,292	5,902,103	6,167,698	6,445,244	6,735,280	7,038,368	7,355,094	7,686,074	8,031,947	8,393,384
WWSS Water	0	0	0	6,368,824	6,734,481	7,114,931	7,504,673	7,903,148	8,309,717	8,723,648	9,144,116	9,570,195
Water Costs Subtotal	\$14,437,100	\$15,086,600	\$14,565,598	\$12,357,180	\$12,992,313	\$13,654,365	\$14,338,381	\$15,044,374	\$15,772,297	\$16,522,044	\$17,293,440	\$18,086,240
% Change	15.5%	4.5%	(3.5%)	(15.2%)	5.1%	5.1%	5.0%	4.9%	4.8%	4.8%	4.7%	4.6%
<b>Pumping Power</b>												
In-District Pumping	\$527,000	\$600,000	\$627,000	\$655,215	\$684,700	\$715,511	\$747,709	\$781,356	\$816,517	\$853,260	\$891,657	\$931,782
WWSS Pumping	0	0	0	812,459	859,105	907,638	957,357	1,008,189	1,060,054	1,112,859	1,166,497	1,220,851
Pumping Power Subtotal	\$527,000	\$600,000	\$627,000	\$1,467,674	\$1,543,804	\$1,623,149	\$1,705,066	\$1,789,545	\$1,876,572	\$1,966,119	\$2,058,154	\$2,152,633
% Change	9.9%	13.9%	4.5%	134.1%	5.2%	5.1%	5.0%	5.0%	4.9%	4.8%	4.7%	4.6%
<b>WWSS (excluding treatment &amp; pump power)</b>												
WWSS O&M (non-WTP)	\$0	\$0	\$0	\$460,653	\$479,892	\$499,945	\$520,847	\$542,633	\$565,342	\$616,600	\$642,515	\$669,533
WIF-related	43,679	45,644	47,698	79,545	83,124	86,865	90,774	94,858	99,127	103,588	108,249	113,120
WIFIA Issuance and Servicing	14,742	15,406	16,099	16,823	17,581	18,372	19,198	20,062	20,965	21,909	22,894	23,925
WWSS Subtotal	\$58,421	\$61,050	\$63,797	\$557,021	\$580,597	\$605,182	\$630,819	\$657,554	\$685,434	\$742,096	\$773,659	\$806,578
% Change	4.5%	4.5%	4.5%	773.1%	4.2%	4.2%	4.2%	4.2%	4.2%	8.3%	4.3%	4.3%
<b>Operational Expenses</b>												
Administrative Services	\$5,284,422	\$5,219,268	\$5,641,744	\$5,478,798	\$5,637,204	\$5,892,420	\$6,159,175	\$6,437,990	\$6,729,410	\$7,006,415	\$7,323,536	\$7,654,990
Customer Service	7,015,679	6,734,995	7,293,110	7,614,220	7,949,604	8,299,899	8,665,771	9,047,916	9,447,063	9,863,971	10,299,435	10,754,285
Engineering/Operations	17,314,443	16,353,441	16,853,196	17,611,589	18,404,111	19,232,296	20,097,749	21,002,148	21,947,245	22,934,871	23,966,940	25,045,452
Other Operational Expenses	120,123	1,075,528	2,131,177	2,227,080	2,327,299	2,432,027	2,541,468	2,655,834	2,775,347	2,900,237	3,030,748	3,167,132
Finance	5,439,787	5,199,464	5,490,544	5,530,630	5,779,508	6,039,586	6,311,367	6,595,379	6,892,171	7,202,319	7,526,423	7,865,112
Water Supply Program	2,047,537	1,999,281	2,089,248	2,183,264	2,281,511	2,384,179	2,491,467	2,603,584	2,720,175	2,843,178	2,971,121	3,104,822
IT Services	5,407,414	4,905,171	5,099,291	5,328,759	5,568,553	5,819,138	6,080,999	6,354,644	6,640,603	6,939,430	7,251,704	7,578,031
Operational Expenses Subtotal	\$42,629,405	\$41,484,148	\$44,598,309	\$45,974,341	\$47,947,790	\$50,099,545	\$52,347,998	\$54,697,495	\$57,152,583	\$59,690,422	\$62,369,907	\$65,169,824
% Change	36.3%	(2.7%)	7.5%	3.1%	4.3%	4.5%	4.5%	4.5%	4.5%	4.4%	4.5%	4.5%
<b>Other</b>												
Other Appropriations	\$25,000	\$26,125	\$27,301	\$28,529	\$29,813	\$31,155	\$32,557	\$34,022	\$35,553	\$37,152	\$38,824	\$40,571
Expenses from Master Plan CIP	\$96,000	\$159,400	\$105,000	\$122,700	\$128,200	\$125,500	\$130,600	\$136,800	\$143,000	\$149,300	\$155,500	\$162,700
Capital Outlays	500,000	522,500	546,013	570,583	596,259	623,091	651,130	680,431	711,050	743,048	776,485	811,427
Other Initiatives – Personnel Svcs.	0	0	0	0	0	0	0	0	0	0	0	0
Other Initiatives – M&S	0	0	0	0	0	0	0	0	0	0	0	0
Custodial Services (US Bank or Zions)	2,956	500	500	525	550	575	600	625	655	685	715	745
Other Subtotal	\$623,956	\$708,525	\$678,813	\$722,337	\$754,822	\$780,321	\$814,887	\$851,877	\$890,258	\$930,185	\$971,524	\$1,015,443
% Change	75.2%	13.6%	(4.2%)	6.4%	4.5%	3.4%	4.4%	4.5%	4.5%	4.5%	4.4%	4.5%
<b>Grand Total O&amp;M</b>	\$58,275,882	\$57,940,323	\$60,533,517	\$61,078,553	\$63,819,327	\$66,762,562	\$69,837,150	\$73,040,846	\$76,377,143	\$79,850,866	\$83,466,685	\$87,230,717
% Change	30.5%	(0.6%)	4.5%	0.9%	4.5%	4.6%	4.6%	4.6%	4.6%	4.5%	4.5%	4.5%
<b>Less Capitalized OH &amp; Capital Outlays</b>	\$4,741,626	\$5,122,119	\$5,482,453	\$5,729,430	\$3,638,416	\$3,802,345	\$3,973,632	\$4,153,230	\$4,340,125	\$4,535,431	\$4,739,525	\$4,952,804
<b>Net O&amp;M</b>	\$53,534,256	\$52,818,205	\$55,051,064	\$55,349,123	\$60,180,910	\$62,960,217	\$65,863,518	\$68,887,616	\$72,037,018	\$75,315,435	\$78,727,159	\$82,277,913
% Change	30.5%	(1.3%)	4.2%	0.5%	8.7%	4.6%	4.6%	4.6%	4.6%	4.6%	4.5%	4.5%
Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK



TVWD Forecast Model Summary

Table 6  
Tuatatin Valley Water District  
Financial Strategy Summary  
Summary O&M Forecast

	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
<b>Water Costs</b>												
Portland	\$128,179	\$133,947	\$139,975	\$146,274	\$152,856	\$159,735	\$166,923	\$174,434	\$182,284	\$190,487	\$199,059	\$208,016
JWC	8,771,087	9,165,786	9,578,246	10,009,267	10,459,684	10,930,370	11,422,237	11,936,237	12,473,368	13,034,669	13,621,230	14,234,185
WWSS Water	10,000,854	10,450,893	10,921,183	11,412,636	11,926,205	12,462,884	13,023,714	13,609,781	14,222,221	14,862,221	15,531,021	16,229,917
Water Costs Subtotal	\$18,900,120	\$19,750,626	\$20,639,404	\$21,568,177	\$22,538,745	\$23,552,989	\$24,612,873	\$25,720,452	\$26,877,873	\$28,087,377	\$29,351,309	\$30,672,118
% Change	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
<b>Pumping Power</b>												
In-District Pumping	\$973,712	\$1,017,529	\$1,063,318	\$1,111,167	\$1,161,169	\$1,213,422	\$1,268,026	\$1,325,087	\$1,384,716	\$1,447,028	\$1,512,145	\$1,580,191
WWSS Pumping	1,275,790	1,333,200	1,393,194	1,455,888	1,521,403	1,589,866	1,661,410	1,736,173	1,814,301	1,895,945	1,981,262	2,070,419
Pumping Power Subtotal	\$2,249,501	\$2,350,729	\$2,456,512	\$2,567,055	\$2,682,572	\$2,803,288	\$2,929,436	\$3,061,261	\$3,199,017	\$3,342,973	\$3,493,407	\$3,650,610
% Change	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
<b>WWSS (excluding treatment &amp; pump power)</b>												
WWSS O&M (non-WTP)	\$697,700	\$840,816	\$876,551	\$913,820	\$952,690	\$993,231	\$1,035,514	\$1,079,616	\$1,125,615	\$1,173,594	\$1,223,638	\$1,275,837
WIF-related	118,211	123,530	129,089	134,898	140,969	147,312	153,941	160,869	168,108	175,673	183,578	191,839
WIFIA Issuance and Servicing	25,001	26,126	27,302	28,531	29,814	31,156	32,558	34,023	35,554	37,154	38,826	40,573
WWSS Subtotal	\$840,912	\$990,472	\$1,032,942	\$1,077,249	\$1,123,473	\$1,171,699	\$1,222,014	\$1,274,508	\$1,329,277	\$1,386,421	\$1,446,042	\$1,508,249
% Change	4.3%	17.8%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%
<b>Operational Expenses</b>												
Administrative Services	\$8,001,427	\$8,249,772	\$8,623,113	\$9,013,329	\$9,421,180	\$9,847,463	\$10,293,011	\$10,758,693	\$11,245,418	\$11,754,136	\$12,285,840	\$12,841,567
Customer Service	11,229,386	11,725,647	12,244,012	12,785,472	13,351,060	13,941,855	14,558,986	15,203,631	15,877,023	16,580,447	17,315,251	18,082,837
Engineering/Operations	26,172,497	27,350,260	28,581,021	29,867,167	31,211,190	32,615,693	34,083,400	35,617,153	37,219,924	38,894,821	40,645,088	42,474,117
Other Operational Expenses	3,309,653	3,458,587	3,614,224	3,776,864	3,946,823	4,124,430	4,310,029	4,503,980	4,706,659	4,918,459	5,139,790	5,371,080
Finance	8,219,042	8,588,899	8,975,400	9,379,293	9,801,361	10,242,422	10,703,331	11,188,305	11,688,305	12,214,279	12,763,921	13,338,298
Water Supply Program	3,244,539	3,390,543	3,543,117	3,702,558	3,869,173	4,043,286	4,225,233	4,415,369	4,614,061	4,821,693	5,038,669	5,265,410
IT Services	7,919,042	8,275,399	8,647,792	9,036,943	9,443,605	9,868,568	10,312,653	10,776,723	11,261,675	11,768,451	12,298,031	12,851,442
Operational Expenses Subtotal	\$68,095,587	\$71,039,107	\$74,228,680	\$77,561,625	\$81,044,391	\$84,683,717	\$88,486,643	\$92,460,529	\$96,613,065	\$100,952,286	\$105,486,589	\$110,224,750
% Change	4.5%	4.3%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
<b>Other</b>												
Other Appropriations	\$42,397	\$44,305	\$46,299	\$48,382	\$50,559	\$52,834	\$55,212	\$57,697	\$60,293	\$63,006	\$65,841	\$68,804
Expenses from Master Plan CIP	\$169,900	\$177,200	\$185,400	\$193,700	\$202,000	\$211,200	\$220,500	\$230,800	\$241,100	\$251,500	\$262,800	\$274,100
Capital Outlays	847,941	886,098	925,972	967,641	1,011,185	1,056,688	1,104,239	1,153,930	1,205,857	1,260,121	1,316,826	1,376,083
Other Initiatives – Personnel Svcs.	0	0	0	0	0	0	0	0	0	0	0	0
Other Initiatives – M&S	0	0	0	0	0	0	0	0	0	0	0	0
Custodial Services (US Bank or Zions)	780	815	850	890	930	970	1,015	1,060	1,110	1,160	1,210	1,265
Other Subtotal	\$1,061,018	\$1,108,418	\$1,158,521	\$1,210,613	\$1,264,674	\$1,321,693	\$1,380,966	\$1,443,487	\$1,508,360	\$1,575,787	\$1,646,677	\$1,720,252
% Change	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
<b>Grand Total O&amp;M</b>	\$91,147,138	\$95,239,352	\$99,516,059	\$103,984,719	\$108,653,856	\$113,533,385	\$118,631,932	\$123,960,237	\$129,527,592	\$135,344,843	\$141,424,025	\$147,775,980
% Change	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
<b>Less Capitalized OH &amp; Capital Outlays</b>	\$5,175,680	\$5,408,586	\$5,651,972	\$5,906,311	\$6,172,095	\$6,449,839	\$6,740,082	\$7,043,386	\$7,360,338	\$7,691,553	\$8,037,673	\$8,399,368
<b>Net O&amp;M</b>	\$85,971,458	\$89,830,766	\$93,864,086	\$98,078,408	\$102,481,762	\$107,083,546	\$111,891,850	\$116,916,852	\$122,167,254	\$127,653,290	\$133,386,351	\$139,376,612
% Change	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 6  
Tualatin Valley Water District  
Financial Strategy Summary  
Summary O&M Forecast

	FY2048	FY2049	FY2050	FY2051
<b>Water Costs</b>				
Portland	\$217,377	\$227,159	\$237,381	\$248,063
JWC	14,874,723	15,544,086	16,243,570	16,974,530
WWSS Water	16,960,263	17,723,475	18,521,031	19,354,478
Water Costs Subtotal	\$32,052,363	\$33,494,720	\$35,001,982	\$36,577,071
% Change	4.5%	4.5%	4.5%	4.5%
<b>Pumping Power</b>				
In-District Pumping	\$1,651,300	\$1,725,608	\$1,803,261	\$1,884,407
WWSS Pumping	2,163,588	2,260,949	2,362,692	2,469,013
Pumping Power Subtotal	\$3,814,888	\$3,986,558	\$4,165,953	\$4,353,421
% Change	4.5%	4.5%	4.5%	4.5%
<b>WWSS (excluding treatment &amp; pump power)</b>				
WWSS O&M (non-WIP)	\$1,330,285	\$1,387,079	\$1,446,322	\$1,508,119
WIF-related	200,472	209,493	218,920	228,771
WIFIA Issuance and Servicing	42,399	44,307	46,301	48,384
WWSS Subtotal	\$1,573,156	\$1,640,879	\$1,711,542	\$1,785,275
% Change	4.3%	4.3%	4.3%	4.3%
<b>Operational Expenses</b>				
Administrative Services	\$13,422,403	\$14,029,479	\$14,663,982	\$15,327,148
Customer Service	18,884,674	19,722,297	20,597,309	21,511,383
Engineering/Operations	44,385,452	46,382,798	48,470,023	50,651,175
Other Operational Expenses	5,612,779	5,865,354	6,129,295	6,405,113
Finance	13,938,521	14,565,755	15,221,213	15,906,168
Water Supply Program	5,502,353	5,749,959	6,008,707	6,279,099
IT Services	13,429,757	14,034,096	14,665,630	15,325,584
Operational Expenses Subtotal	\$115,175,939	\$120,349,738	\$125,756,160	\$131,405,670
% Change	4.5%	4.5%	4.5%	4.5%
<b>Other</b>				
Other Appropriations	\$71,900	\$75,136	\$78,517	\$82,050
Expenses from Master Plan CIP	\$286,500	\$298,800	\$298,800	\$298,800
Capital Outlays	1,438,007	1,502,717	1,570,340	1,641,005
Other Initiatives – Personnel Svcs.	0	0	0	0
Other Initiatives – M&S	0	0	0	0
Custodial Services (US Bank or Zions)	1,320	1,380	1,440	1,505
Other Subtotal	\$1,797,727	\$1,878,033	\$1,949,096	\$2,023,360
% Change	4.5%	4.5%	3.8%	3.8%
<b>Grand Total O&amp;M</b>	\$154,414,073	\$161,349,927	\$168,584,733	\$176,144,796
% Change	4.5%	4.5%	4.5%	4.5%
<b>Less Capitalized OH &amp; Capital Outlays</b>	\$8,777,340	\$9,172,320	\$9,585,075	\$10,016,403
<b>Net O&amp;M</b>	\$145,636,733	\$152,177,607	\$158,999,659	\$166,128,393
% Change	4.5%	4.5%	4.5%	4.5%
Check	OK	OK	OK	OK

Table 7  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Rate Revenue Assumptions

	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
<b>GENERAL Assumptions</b>						
Overall Rate Revenue Increases	22.00%	17.50%	3.25%	3.25%	3.25%	3.25%
Month of Rate Increase Impact	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.
Prorated Percent Impact of Increase	46.96%	46.96%	46.96%	46.96%	46.96%	46.96%
<b>RETAIL RATE Assumptions</b>						
Class Customer/System Growth Rate	(0.04%)	0.55%	0.50%	0.45%	0.40%	0.35%
Sales Growth / Conservation Adj.	0.37%	0.38%	0.38%	0.37%	0.38%	0.35%
Ratio - Volumetric Revenue	78.83%	78.83%	78.83%	78.83%	78.83%	78.83%
Internal Revenue Growth	0.29%	0.41%	0.40%	0.39%	0.38%	0.35%

Table 7  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Rate Revenue Assumptions

	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
<b>GENERAL Assumptions</b>						
Overall Rate Revenue Increases	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%
Month of Rate Increase Impact	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.
Prorated Percent Impact of Increase	46.96%	46.96%	46.96%	46.96%	46.96%	46.96%
<b>RETAIL RATE Assumptions</b>						
Class Customer/System Growth Rate	0.30%	0.25%	0.20%	0.15%	0.10%	0.05%
Sales Growth / Conservation Adj.	0.30%	0.25%	0.20%	0.15%	0.10%	0.05%
Ratio - Volumetric Revenue	78.83%	78.83%	78.83%	78.83%	78.83%	78.83%
Internal Revenue Growth	0.30%	0.25%	0.20%	0.15%	0.10%	0.05%

Table 7  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Rate Revenue Assumptions

	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
<b>GENERAL Assumptions</b>						
Overall Rate Revenue Increases	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%
Month of Rate Increase Impact	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.
Prorated Percent Impact of Increase	46.96%	46.96%	46.96%	46.96%	46.96%	46.96%
<b>RETAIL RATE Assumptions</b>						
Class Customer/System Growth Rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sales Growth / Conservation Adj.	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ratio - Volumetric Revenue	78.83%	78.83%	78.83%	78.83%	78.83%	78.83%
Internal Revenue Growth	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Table 7  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Rate Revenue Assumptions

	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
<b>GENERAL Assumptions</b>						
Overall Rate Revenue Increases	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%
Month of Rate Increase Impact	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.
Prorated Percent Impact of Increase	46.96%	46.96%	46.96%	46.96%	46.96%	46.96%
<b>RETAIL RATE Assumptions</b>						
Class Customer/System Growth Rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sales Growth / Conservation Adj.	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Ratio - Volumetric Revenue	78.83%	78.83%	78.83%	78.83%	78.83%	78.83%
Internal Revenue Growth	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Table 7  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Rate Revenue Assumptions

	FY2048	FY2049	FY2050	FY2051
<b>GENERAL Assumptions</b>				
Overall Rate Revenue Increases	3.25%	3.25%	3.25%	3.25%
Month of Rate Increase Impact	Dec.	Dec.	Dec.	Dec.
Prorated Percent Impact of Increase	46.96%	46.96%	46.96%	46.96%
<b>RETAIL RATE Assumptions</b>				
Class Customer/System Growth Rate	0.00%	0.00%	0.00%	0.00%
Sales Growth / Conservation Adj.	0.00%	0.00%	0.00%	0.00%
Ratio - Volumetric Revenue	78.83%	78.83%	78.83%	78.83%
Internal Revenue Growth	0.00%	0.00%	0.00%	0.00%

TVWD Forecast Model Summary

Table 8  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Revenue Forecast

	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Total User Charges	\$97,731,833	\$117,431,633	\$129,970,703	\$134,719,671	\$139,627,390	\$144,670,153
% Change	15.6%	20.2%	10.7%	3.7%	3.6%	3.6%
Non-Rate Revenues*						
Meter & Svc Revenue	\$1,757,975	\$1,818,775	\$1,880,050	\$1,946,075	\$2,017,325	\$2,088,575
Special Service & Turn On Fees	2,069	2,131	2,195	2,261	2,328	2,398
Penalty Fees	12,810	13,195	13,591	13,998	14,418	14,851
Dispatch Fees	0	0	0	0	0	0
Miscellaneous Income	214,700	221,141	227,775	234,608	241,646	248,896
Plan Review	27,716	28,547	29,404	30,286	31,195	32,130
Contract Reimbursements	530,450	546,364	562,754	579,637	597,026	614,937
Inspection Fees	97,231	100,148	103,153	106,247	109,435	112,718
Backflow Program Reimbursement	428,206	441,052	454,283	467,912	481,949	496,408
Sales to Other Funds – Partner Share	1,943,028	2,157,104	2,352,562	2,458,630	2,789,370	2,825,043
COB Wheeling Revenue	762,684	591,383	407,606	210,704	217,025	223,536
Interest Earnings - Cash Investments	1,078,568	961,233	689,977	968,764	1,476,739	1,909,460
Total Non-Rate Revenues	\$6,951,130	\$6,979,636	\$6,824,871	\$7,094,621	\$6,056,220	\$6,649,048
Total Revenues	\$104,682,963	\$124,411,269	\$136,795,574	\$141,814,292	\$145,683,610	\$151,319,201

\* Note: Non-Rate Revenues are net of related expenses.



TVWD Forecast Model Summary

Table 8  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Revenue Forecast

	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
Total User Charges	\$149,820,274	\$155,076,317	\$160,436,637	\$165,899,366	\$171,462,416	\$177,123,469
% Change	3.6%	3.5%	3.5%	3.4%	3.4%	3.3%
Non-Rate Revenues*						
Meter & Svc Revenue	\$2,088,575	\$2,160,300	\$2,237,250	\$2,314,675	\$2,396,850	\$2,479,975
Special Service & Turn On Fees	2,470	2,544	2,621	2,699	2,780	2,864
Penalty Fees	15,296	15,755	16,228	16,715	17,216	17,733
Dispatch Fees	0	0	0	0	0	0
Miscellaneous Income	256,363	264,053	271,975	280,134	288,538	297,195
Plan Review	33,094	34,087	35,110	36,163	37,248	38,365
Contract Reimbursements	633,385	652,387	671,958	692,117	712,880	734,267
Inspection Fees	116,099	119,582	123,170	126,865	130,671	134,591
Backflow Program Reimbursement	511,300	526,639	542,438	558,711	575,473	592,737
Sales to Other Funds – Partner Share	862,308	901,706	942,283	984,685	1,028,996	1,075,301
COB Wheeling Revenue	230,242	237,149	244,264	251,592	259,139	266,914
Interest Earnings - Cash Investments	2,296,738	2,672,445	2,785,103	2,499,885	2,295,139	2,280,958
Total Non-Rate Revenues	\$7,128,369	\$7,671,621	\$7,959,922	\$7,854,390	\$7,837,784	\$8,016,537
Total Revenues	\$156,948,643	\$162,747,939	\$168,396,559	\$173,753,757	\$179,300,200	\$185,140,006

\* Note: Non-Rate Revenues are net of related expenses.

TVWD Forecast Model Summary

Table 8  
 Tuatatin Valley Water District  
 Financial Strategy Summary  
 Revenue Forecast

	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
Total User Charges	\$182,879,982	\$188,823,581	\$194,960,347	\$201,296,559	\$207,838,697	\$214,593,455
% Change	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Non-Rate Revenues*						
Meter & Svc Revenue	\$2,567,850	\$2,656,200	\$2,749,775	\$2,848,575	\$2,947,850	\$3,052,350
Special Service & Turn On Fees	2,950	3,038	3,129	3,223	3,320	3,419
Penalty Fees	18,265	18,812	19,377	19,958	20,557	21,174
Dispatch Fees	0	0	0	0	0	0
Miscellaneous Income	306,110	315,294	324,752	334,495	344,530	354,866
Plan Review	39,516	40,702	41,923	43,181	44,476	45,810
Contract Reimbursements	756,295	778,984	802,353	826,424	851,217	876,753
Inspection Fees	138,629	142,788	147,071	151,483	156,028	160,709
Backflow Program Reimbursement	610,519	628,835	647,700	667,131	687,145	707,759
Sales to Other Funds – Partner Share	1,123,690	1,174,256	1,227,097	1,282,317	1,340,021	1,400,322
COB Wheeling Revenue	274,921	283,169	291,664	300,414	309,426	318,709
Interest Earnings - Cash Investments	2,004,185	1,906,462	2,238,817	2,447,557	2,460,176	2,573,486
Total Non-Rate Revenues	\$7,941,436	\$8,050,001	\$8,598,166	\$9,032,399	\$9,275,616	\$9,629,554
Total Revenues	\$190,821,418	\$196,873,582	\$203,558,513	\$210,328,957	\$217,114,313	\$224,223,008

\* Note: Non-Rate Revenues are net of related expenses.

TVWD Forecast Model Summary

Table 8  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Revenue Forecast

	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
Total User Charges	\$221,567,742	\$228,768,693	\$236,203,676	\$243,880,295	\$251,806,405	\$259,990,113
% Change	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
Non-Rate Revenues*						
Meter & Svc Revenue	\$3,157,325	\$3,267,525	\$3,382,950	\$3,499,325	\$3,620,450	\$3,747,275
Special Service & Turn On Fees	3,522	3,628	3,736	3,848	3,964	4,083
Penalty Fees	21,809	22,463	23,137	23,831	24,546	25,282
Dispatch Fees	0	0	0	0	0	0
Miscellaneous Income	365,512	376,477	387,771	399,405	411,387	423,728
Plan Review	47,185	48,600	50,058	51,560	53,107	54,700
Contract Reimbursements	903,056	930,147	958,052	986,793	1,016,397	1,046,889
Inspection Fees	165,530	170,496	175,611	180,879	186,306	191,895
Backflow Program Reimbursement	728,992	750,861	773,387	796,589	820,487	845,101
Sales to Other Funds – Partner Share	1,463,336	1,529,186	1,598,000	1,669,910	1,745,056	1,823,583
COB Wheeling Revenue	328,270	338,118	348,262	358,710	369,471	380,555
Interest Earnings - Cash Investments	2,911,031	3,227,243	3,124,336	2,713,308	2,119,905	1,691,660
Total Non-Rate Revenues	\$10,213,190	\$10,785,897	\$10,950,087	\$10,812,687	\$10,503,460	\$10,371,109
Total Revenues	\$231,780,931	\$239,554,590	\$247,153,763	\$254,692,983	\$262,309,865	\$270,361,222

\* Note: Non-Rate Revenues are net of related expenses.

Table 8  
 Tuatatin Valley Water District  
 Financial Strategy Summary  
 Revenue Forecast

	FY2048	FY2049	FY2050	FY2051
Total User Charges	\$268,439,792	\$277,164,085	\$286,171,918	\$295,472,505
% Change	3.3%	3.3%	3.3%	3.3%
<b>Non-Rate Revenues*</b>				
Meter & Svc Revenue	\$3,879,325	\$4,017,075	\$4,155,300	\$4,303,500
Special Service & Turn On Fees	4,205	4,332	4,461	4,595
Penalty Fees	26,041	26,822	27,627	28,456
Dispatch Fees	0	0	0	0
Miscellaneous Income	436,440	449,533	463,019	476,910
Plan Review	56,341	58,031	59,772	61,565
Contract Reimbursements	1,078,296	1,110,645	1,143,964	1,178,283
Inspection Fees	197,652	203,581	209,689	215,979
Backflow Program Reimbursement	870,454	896,568	923,465	951,169
Sales to Other Funds – Partner Share	1,905,645	1,991,399	2,081,011	2,174,657
COB Wheeling Revenue	391,972	403,731	415,843	428,318
Interest Earnings - Cash Investments	1,782,264	2,133,374	2,169,713	2,250,654
<b>Total Non-Rate Revenues</b>	<b>\$10,769,081</b>	<b>\$11,439,752</b>	<b>\$11,802,865</b>	<b>\$12,227,558</b>
<b>Total Revenues</b>	<b>\$279,208,873</b>	<b>\$288,603,837</b>	<b>\$297,974,783</b>	<b>\$307,700,063</b>

\* Note: Non-Rate Revenues are net of related expenses.

Table 9  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 SDC Revenue Forecast

	FY2021	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
SDC Fee Escalation		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Annual Fee per EDU							
Improvement Fee	\$6,675	\$8,012	\$8,172	\$8,335	\$8,502	\$8,672	\$0
Reimbursement Fee	1,582	1,899	1,937	1,976	2,015	2,055	10,942
Total SDC	<u>\$8,257</u>	<u>\$9,911</u>	<u>\$10,109</u>	<u>\$10,311</u>	<u>\$10,517</u>	<u>\$10,728</u>	<u>\$10,942</u>
New Equivalent Dwelling Units		455	435	415	395	375	350
SDC Forecast Revenue							
Improvement Fee		\$3,645,343	\$3,554,810	\$3,459,198	\$3,358,339	\$3,252,063	\$0
Reimbursement Fee		863,960	842,503	819,843	795,939	770,751	3,829,719
Totals		<u>\$4,509,302</u>	<u>\$4,397,313</u>	<u>\$4,279,041</u>	<u>\$4,154,278</u>	<u>\$4,022,814</u>	<u>\$3,829,719</u>

Table 9  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 SDC Revenue Forecast

	FY2021	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
SDC Fee Escalation		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Annual Fee per EDU							
Improvement Fee	\$6,675	\$0	\$0	\$0	\$0	\$0	\$0
Reimbursement Fee	1,582	11,161	11,384	11,612	11,844	12,081	12,323
Total SDC	<u>\$8,257</u>	<u>\$11,161</u>	<u>\$11,384</u>	<u>\$11,612</u>	<u>\$11,844</u>	<u>\$12,081</u>	<u>\$12,323</u>
New Equivalent Dwelling Units		325	300	275	250	225	200
SDC Forecast Revenue							
Improvement Fee	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reimbursement Fee	3,627,291	3,415,234	3,415,234	3,193,243	2,961,008	2,718,205	2,464,506
Totals	<u>\$3,627,291</u>	<u>\$3,415,234</u>	<u>\$3,415,234</u>	<u>\$3,193,243</u>	<u>\$2,961,008</u>	<u>\$2,718,205</u>	<u>\$2,464,506</u>

Table 9  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 SDC Revenue Forecast

	FY2021	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
SDC Fee Escalation		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Annual Fee per EDU							
Improvement Fee	\$6,675	\$0	\$0	\$0	\$0	\$0	\$0
Reimbursement Fee	1,582	12,569	12,820	13,077	13,338	13,605	13,877
Total SDC	<u>\$8,257</u>	<u>\$12,569</u>	<u>\$12,820</u>	<u>\$13,077</u>	<u>\$13,338</u>	<u>\$13,605</u>	<u>\$13,877</u>
New Equivalent Dwelling Units		175	150	125	100	75	50
SDC Forecast Revenue							
Improvement Fee	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reimbursement Fee	2,199,571	1,923,054	1,634,596	1,333,830	1,020,380	693,858	
Totals	<u>\$2,199,571</u>	<u>\$1,923,054</u>	<u>\$1,634,596</u>	<u>\$1,333,830</u>	<u>\$1,020,380</u>	<u>\$693,858</u>	<u>\$693,858</u>

Table 9  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 SDC Revenue Forecast

	FY2021	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
SDC Fee Escalation		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Annual Fee per EDU							
Improvement Fee	\$6,675	\$0	\$0	\$0	\$0	\$0	\$0
Reimbursement Fee	1,582	14,155	14,438	14,727	15,021	15,322	15,628
Total SDC	<u>\$8,257</u>	<u>\$14,155</u>	<u>\$14,438</u>	<u>\$14,727</u>	<u>\$15,021</u>	<u>\$15,322</u>	<u>\$15,628</u>
New Equivalent Dwelling Units		25	0	0	0	0	0
SDC Forecast Revenue							
Improvement Fee		\$0	\$0	\$0	\$0	\$0	\$0
Reimbursement Fee		353,868	0	0	0	0	0
Totals		<u>\$353,868</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>



Table 9  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 SDC Revenue Forecast

	FY2021	FY2048	FY2049	FY2050	FY2051
SDC Fee Escalation		2.00%	2.00%	2.00%	2.00%
Annual Fee per EDU					
Improvement Fee	\$6,675	\$0	\$0	\$0	\$0
Reimbursement Fee	1,582	15,941	16,259	16,585	16,916
Total SDC	<u>\$8,257</u>	<u>\$15,941</u>	<u>\$16,259</u>	<u>\$16,585</u>	<u>\$16,916</u>
New Equivalent Dwelling Units		0	0	0	0
SDC Forecast Revenue					
Improvement Fee	\$0	\$0	\$0	\$0	\$0
Reimbursement Fee	0	0	0	0	0
Totals	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

TWWD Forecast Model Summary

	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035	FY2036
<b>Table 10</b>													
<b>Tualatin Valley Water District</b>													
<b>Financial Strategy Summary</b>													
<b>Debt Service Coverage Calculations</b>													
<b>— Net Revenues incl. SDCs</b>													
<b>Growth-related Revenue</b>													
<b>Estimated Gross Revenues</b>													
Total User Charges	\$97,731,833	\$117,431,633	\$129,970,703	\$134,719,671	\$139,627,390	\$144,670,153	\$149,820,274	\$155,076,317	\$160,436,637	\$165,899,366	\$171,462,416	\$177,123,469	\$182,879,982
Non-Rate Revenue													
Meter & Svc Revenue	1,757,975	1,818,775	1,880,050	1,946,075	2,017,325	2,088,575	2,088,575	2,160,300	2,237,250	2,314,675	2,396,850	2,479,975	2,567,850
Specialty Service & Turn-On Fees	2,069	2,131	2,195	2,261	2,328	2,395	2,470	2,544	2,621	2,699	2,780	2,864	2,950
Penalty Fees	12,810	13,195	13,591	13,998	14,418	14,851	15,296	15,755	16,228	16,715	17,216	17,733	18,265
Dispatch Fees	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Income	214,700	221,141	227,775	234,608	241,646	248,896	256,363	264,053	271,975	280,134	288,538	297,195	306,110
Plan Review	27,716	28,547	29,404	30,286	31,195	32,130	33,094	34,087	35,110	36,163	37,248	38,365	39,516
Contract Reimbursements	530,450	546,364	562,754	579,637	597,026	614,937	633,385	652,387	671,958	692,117	712,880	734,267	756,295
Inspection Fees	97,231	100,148	103,153	106,247	109,435	112,718	116,099	119,582	123,170	126,865	130,671	134,591	138,629
Backflow Program Reimbursement	428,206	441,052	454,283	467,912	481,949	496,408	511,300	526,639	542,438	558,711	575,473	592,737	610,519
Power Generation Station	26,602	27,400	28,222	0	0	0	0	0	0	0	0	0	0
Rental Property Income	69,091	71,164	73,299	75,498	77,763	80,096	82,498	84,973	87,523	90,148	92,853	95,638	98,507
Sales to Other Funds – Partner Share	1,943,028	2,157,104	2,352,562	2,458,630	2,566,370	2,675,803	2,786,938	2,900,773	3,017,408	3,136,843	3,259,078	3,384,113	3,512,048
COB Wheeling Revenue	762,684	591,383	407,606	210,704	217,025	223,536	230,242	237,149	244,264	251,592	259,139	266,914	274,921
Interest Earnings on Reserve Funds													
Cash Investments	1,078,568	961,233	689,977	968,764	1,476,739	1,909,460	2,296,738	2,672,445	2,785,103	2,499,885	2,295,139	2,280,958	2,004,185
Bond Proceeds	296,566	85	52	26	0	0	0	0	0	0	0	0	0
Rev. Bond Debt Service	0	115,308	138,370	138,370	138,370	138,370	138,370	138,370	138,370	138,370	138,370	138,370	138,370
Construction Clearing Account	0	0	0	0	0	0	0	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	18,124	21,880	3,784	29	0	0	0	0	0
WiFi Reserve	0	0	0	0	0	0	0	0	0	0	0	0	0
Improvement Fee	3,645,343	3,554,810	3,459,198	3,358,339	3,252,063	3,135,719	3,010,291	2,875,864	2,732,537	2,580,210	2,428,883	2,278,556	2,129,229
Reimbursement Fee	863,960	842,503	819,843	795,939	770,751	746,563	722,375	698,187	674,000	649,812	625,625	601,437	577,250
Gross Revenue (including related Revenue)	\$109,488,831	\$128,923,975	\$141,213,037	\$146,106,966	\$149,862,917	\$155,309,170	\$160,718,088	\$166,301,571	\$171,728,173	\$176,853,135	\$182,156,775	\$187,742,882	\$193,159,360
Gross Revenue (excluding related Revenue)	103,221,553	122,707,887	135,053,946	140,006,613	143,804,655	149,368,996	154,998,438	160,726,009	166,297,679	171,577,452	177,041,720	182,798,401	188,391,938
Operating Expenses (excluding depreciation)													
Total O&M Costs	\$58,275,882	\$57,940,323	\$60,533,517	\$61,078,553	\$63,819,327	\$66,762,562	\$69,837,150	\$73,040,846	\$76,377,143	\$79,850,866	\$83,466,685	\$87,230,717	\$91,147,138
Less Capitalized OH & Capital Outlays	(4,741,626)	(5,122,119)	(5,482,453)	(5,729,430)	(3,638,416)	(3,802,345)	(3,973,632)	(4,153,230)	(4,340,125)	(4,535,431)	(4,739,525)	(4,952,804)	(5,175,680)
Net O&M (less Capital Outlays)	\$53,534,256	\$52,818,205	\$55,051,064	\$55,349,123	\$60,180,910	\$62,960,217	\$65,863,518	\$68,887,616	\$72,037,018	\$75,315,435	\$78,727,159	\$82,277,913	\$85,971,458
Net Revenue (including Growth-related Revenue)	\$55,954,575	\$76,105,771	\$86,161,973	\$90,757,844	\$89,682,007	\$92,348,953	\$94,854,570	\$97,413,956	\$99,691,155	\$101,537,699	\$103,429,615	\$105,464,969	\$107,187,902
Net Revenue (excluding Growth-related Revenue)	49,687,297	69,889,682	80,002,882	84,657,490	83,623,744	86,408,780	89,134,920	91,838,394	94,260,661	96,262,017	98,314,560	100,520,488	102,420,480
Annual DS Subject to Coverage	\$3,650,362	\$7,215,250	\$10,790,250	\$10,790,250	\$21,977,184	\$29,663,191	\$29,663,441	\$29,664,941	\$29,662,441	\$29,660,941	\$29,665,191	\$29,664,691	\$29,664,441
DSC Test 1 (including related Revenue)													
Estimated Coverage	15.33	10.55	7.99	8.41	4.08	3.11	3.20	3.28	3.36	3.42	3.49	3.56	3.61
Target Coverage	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Additional Revenues Required - Test 1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
DSC Test 2 (excluding related Revenue)													
Estimated Coverage	13.61	9.69	7.41	7.85	3.81	2.91	3.00	3.10	3.18	3.25	3.31	3.39	3.45
Target Coverage	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Additional Revenues Required - Test 2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
DSC Target Coverage Check 1	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
DSC Target Coverage Check 2	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

TWWD Forecast Model Summary

	FY2037	FY2038	FY2039	FY2040	FY2041	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047	FY2048	FY2049
<b>Estimated Gross Revenues</b>													
Total User Charges	\$188,823,581	\$194,960,347	\$201,296,559	\$207,838,697	\$214,593,455	\$221,567,742	\$228,768,693	\$236,203,676	\$243,880,295	\$251,806,405	\$259,990,113	\$268,439,792	\$277,164,085
Non-Rate Revenue													
Meter & Svc Revenue	2,656,200	2,749,775	2,848,575	2,947,850	3,052,350	3,157,325	3,267,525	3,382,950	3,499,325	3,620,450	3,747,275	3,879,325	4,017,075
Specialty Service & Turn-On Fees	3,038	3,129	3,223	3,320	3,419	3,522	3,628	3,736	3,848	3,964	4,083	4,205	4,332
Penalty Fees	18,812	19,377	19,958	20,557	21,174	21,809	22,463	23,137	23,831	24,546	25,282	26,041	26,822
Dispatch Fees	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Income	315,294	324,752	334,495	344,530	354,866	365,512	376,477	387,771	399,405	411,387	423,728	436,440	449,533
Plan Review	40,702	41,923	43,181	44,476	45,810	47,185	48,600	50,058	51,560	53,107	54,700	56,341	58,031
Contract Reimbursements	778,984	802,353	826,424	851,217	876,753	903,056	930,147	958,052	986,793	1,016,397	1,046,889	1,078,296	1,110,645
Inspection Fees	142,788	147,071	151,483	156,028	160,709	165,530	170,496	175,611	180,879	186,306	191,895	197,652	203,581
Backflow Program Reimbursement	628,835	647,700	667,131	687,145	707,759	728,992	750,861	773,387	796,589	820,487	845,101	870,454	896,568
Power Generation Station	0	0	0	0	0	0	0	0	0	0	0	0	0
Rental Property Income	101,463	104,507	107,642	110,871	114,197	117,623	121,152	124,786	128,530	132,386	136,357	140,448	144,661
Sales to Other Funds – Partner Share	1,174,256	1,227,097	1,282,317	1,340,021	1,400,322	1,463,336	1,529,186	1,598,000	1,669,910	1,745,056	1,823,583	1,905,645	1,991,399
COB Wheeling Revenue	283,169	291,664	300,414	309,426	318,709	328,270	338,118	348,262	358,710	369,471	380,555	391,972	403,731
Interest Earnings on Reserve Funds													
Cash Investments	1,906,462	2,238,817	2,447,557	2,460,176	2,573,486	2,911,031	3,227,243	3,124,336	2,713,308	2,119,905	1,691,660	1,782,264	2,133,374
Bond Proceeds	0	0	0	0	0	0	0	0	0	0	0	0	0
Rev. Bond Debt Service	138,370	138,370	138,370	138,370	138,370	138,370	138,370	138,370	138,370	138,370	138,370	138,370	138,370
Construction Clearing Account	0	0	0	0	0	0	0	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	0	0	0	0	0	0	0	0	0
WFA Reserve	0	0	0	0	0	0	0	0	0	0	0	0	0
Improvement Fee	0	0	0	0	0	0	0	0	0	0	0	0	0
Reimbursement Fee	1,923,054	1,634,596	1,333,830	1,020,380	693,858	353,868	0	0	0	0	0	0	0
Gross Revenue (including related Revenue)	\$198,935,006	\$205,331,479	\$211,801,158	\$218,273,063	\$225,055,237	\$232,273,169	\$239,692,960	\$247,292,133	\$254,831,353	\$262,448,235	\$270,499,593	\$279,347,243	\$288,742,207
Gross Revenue (excluding related Revenue)	194,355,752	200,947,108	207,618,753	214,304,833	221,309,029	228,761,977	236,425,435	243,909,183	251,332,028	258,827,785	266,752,318	275,467,918	284,725,132
Operating Expenses (excluding depreciation)													
Total O&M Costs	\$95,239,352	\$99,516,059	\$103,984,719	\$108,653,856	\$113,533,885	\$118,631,932	\$123,960,237	\$129,527,592	\$135,344,843	\$141,424,025	\$147,775,980	\$154,414,073	\$161,349,927
Less Capitalized OH & Capital Outlays	(5,408,586)	(5,651,972)	(5,906,311)	(6,172,095)	(6,449,839)	(6,740,082)	(7,043,386)	(7,360,338)	(7,691,553)	(8,037,673)	(8,399,368)	(8,777,340)	(9,172,320)
Net O&M (less Capital Outlays)	\$89,830,766	\$93,864,086	\$98,078,408	\$102,481,762	\$107,083,546	\$111,891,850	\$116,916,852	\$122,167,254	\$127,653,290	\$133,386,351	\$139,376,612	\$145,636,733	\$152,177,607
Net Revenue (including Growth-related Revenue)	\$109,104,240	\$111,467,392	\$113,722,749	\$115,791,301	\$117,971,691	\$120,381,319	\$122,776,109	\$125,124,878	\$127,178,063	\$129,061,884	\$131,122,981	\$133,710,511	\$136,564,600
Net Revenue (excluding Growth-related Revenue)	104,524,986	107,083,022	109,540,344	111,823,071	114,225,482	116,870,126	119,508,584	121,741,928	123,678,738	125,441,434	127,375,706	129,831,186	132,547,525
Annual DS Subject to Coverage	\$29,664,191	\$29,663,691	\$29,662,691	\$29,665,941	\$29,662,941	\$29,663,691	\$29,662,691	\$29,664,691	\$29,664,191	\$29,660,941	\$29,664,691	\$29,664,691	\$29,665,691
DSC Test 1 (including related Revenue)													
Estimated Coverage	3.68	3.76	3.83	3.90	3.98	4.06	4.14	4.22	4.29	4.35	4.42	4.51	4.60
Target Coverage	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Additional Revenues Required - Test 1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
DSC Test 2 (excluding related Revenue)													
Estimated Coverage	3.52	3.61	3.69	3.77	3.85	3.94	4.03	4.10	4.17	4.23	4.29	4.38	4.47
Target Coverage	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Additional Revenues Required - Test 2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
DSC Target Coverage Check 1	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
DSC Target Coverage Check 2	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

# TWWD Forecast Model Summary

Table 10  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Debt Service Coverage Calculations  
 — Net Revenues Incl. SDCs

	Growth- related Revenue	FY2050	FY2051
<b>Estimated Gross Revenues</b>			
Total User Charges		\$286,171,918	\$295,472,505
Non-Rate Revenue			
Meter & Svc Revenue	TRUE	4,155,300	4,303,500
Special Service & Turn On Fees		4,461	4,595
Penalty Fees		27,627	28,456
Dispatch Fees		0	0
Miscellaneous Income		463,019	476,910
Plan Review		59,772	61,565
Contract Reimbursements		1,143,964	1,178,283
Inspection Fees		209,689	215,979
Backflow Program Reimbursement		923,465	951,169
Power Generation Station		0	0
Rental Property Income		149,001	153,471
Sales to Other Funds – Partner Share		2,081,011	2,174,657
COB Wheeling Revenue		415,843	428,318
Interest Earnings on Reserve Funds			
Cash Investments		2,169,713	2,250,654
Bond Proceeds		0	0
Rev. Bond Debt Service		138,370	138,370
Construction Clearing Account		0	0
Improvement SDC Account	TRUE	0	0
WIFIA Reserve		0	0
Improvement Fee	TRUE	0	0
Reimbursement Fee	TRUE	0	0
Gross Revenue (including related Revenue)		\$298,113,153	\$307,838,433
Gross Revenue (excluding related Revenue)		293,957,853	303,534,933
Operating Expenses (excluding depreciation)			
Total O&M Costs		\$168,584,733	\$176,144,796
Less Capitalized OH & Capital Outlays		(9,585,075)	(10,016,403)
Net O&M (less Capital Outlays)		\$158,999,659	\$166,128,393
Net Revenue (including Growth-related Revenue)		\$139,113,494	\$141,710,039
Net Revenue (excluding Growth-related Revenue)		134,958,194	137,406,539
Annual DS Subject to Coverage		\$29,662,191	\$29,663,941
DSC Test 1 (including related Revenue)			
Estimated Coverage		4.69	4.78
Target Coverage		2.00	2.00
Additional Revenues Required - Test 1		\$0	\$0
DSC Test 2 (excluding related Revenue)			
Estimated Coverage		4.55	4.63
Target Coverage		1.50	1.50
Additional Revenues Required - Test 2		\$0	\$0
DSC Target Coverage Check 1		OK	OK
DSC Target Coverage Check 2		OK	OK

TWWD Forecast Model Summary

Table 11  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Projected Net Leverage Ratio (Fitch Ratings)  
 — Net Adjusted Debt to Adjusted Net Revenue (FADS)

	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033	FY2034
<b>Calculation of Net Adjusted Debt</b>											
Outstanding Debt Balances											
Future Revenue Bonds	\$72,805,000	\$202,805,000	\$202,805,000	\$202,805,000	\$199,276,796	\$195,561,326	\$191,647,050	\$187,522,066	\$183,179,087	\$178,605,417	\$173,782,935
WIFIA Proceeds	387,748,990	387,748,990	387,748,990	387,748,990	0	0	0	0	0	0	0
Capitalized Interest on WIFIA Proceeds	6,461,583	11,801,387	17,213,522	22,698,967	0	0	0	0	0	0	0
WIFIA Loan Balance	0	0	0	0	408,320,449	398,424,976	388,395,464	378,230,097	367,927,033	357,484,409	346,900,334
TWWD Share of Wilsonville Ground Lease	9,204,952	9,102,673	0	0	0	0	0	0	0	0	0
<b>Total Outstanding Debt</b>	<b>\$476,220,525</b>	<b>\$611,458,050</b>	<b>\$607,767,512</b>	<b>\$613,252,957</b>	<b>\$607,597,245</b>	<b>\$593,986,302</b>	<b>\$580,042,514</b>	<b>\$565,752,163</b>	<b>\$551,106,120</b>	<b>\$536,089,827</b>	<b>\$520,683,269</b>
Capitalized Fixed Charges											
Purchased Water - PWB	\$11,243,200	\$12,003,100	\$11,577,306	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Ratio	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
Fixed Services Expense	\$3,935,120	\$4,201,085	\$4,052,057	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Multiplier	7	7	7	7	7	7	7	7	7	7	7
<b>Total Capitalized Fixed Charges</b>	<b>\$27,545,840</b>	<b>\$29,407,595</b>	<b>\$28,364,399</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Adjusted Net Pension Liability											
Total Adjusted UAL (see below)	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421
Less Cash and Restricted Funds											
Available Cash	\$32,794,097	\$44,104,573	\$47,892,406	\$81,276,164	\$115,622,341	\$138,972,308	\$167,259,416	\$189,066,523	\$182,280,506	\$151,037,533	\$154,980,963
Funds Restricted for Debt Service	0	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
<b>Total Cash/Restricted</b>	<b>\$32,794,097</b>	<b>\$53,329,250</b>	<b>\$57,117,083</b>	<b>\$90,500,841</b>	<b>\$124,847,018</b>	<b>\$148,196,985</b>	<b>\$176,484,093</b>	<b>\$198,291,201</b>	<b>\$191,505,184</b>	<b>\$160,262,210</b>	<b>\$164,205,641</b>
Net Adjusted Debt	\$485,690,689	\$602,254,816	\$593,733,249	\$537,470,537	\$497,468,648	\$460,507,738	\$418,276,842	\$382,179,383	\$374,319,358	\$390,546,037	\$371,196,049
<b>Calculation of Adjusted Net Revenue (FADS)</b>											
Net Revenue (Funds Available for Debt Service)	\$55,954,575	\$76,105,771	\$86,161,973	\$90,757,844	\$89,682,007	\$92,348,953	\$94,854,570	\$97,413,956	\$99,691,155	\$101,537,699	\$103,429,615
Fixed Services Expense	3,935,120	4,201,085	4,052,057	0	0	0	0	0	0	0	0
Operating Leases	0	0	0	0	0	0	0	0	0	0	0
Net Transfers	0	0	0	0	0	0	0	0	0	0	0
Pension Expense (\$7M amortized for 25 yrs @ 6%)	547,587	547,587	547,587	547,587	547,587	547,587	547,587	547,587	547,587	547,587	547,587
<b>Adjusted Net Revenue (FADS)</b>	<b>\$60,437,282</b>	<b>\$80,854,443</b>	<b>\$90,761,617</b>	<b>\$91,305,431</b>	<b>\$90,229,594</b>	<b>\$92,896,540</b>	<b>\$95,402,157</b>	<b>\$97,961,543</b>	<b>\$100,238,742</b>	<b>\$102,085,286</b>	<b>\$103,977,202</b>
Net Adjusted Debt to Adjusted FADS	8.04	7.45	6.54	5.89	5.51	4.96	4.38	3.90	3.73	3.83	3.57
Target Maximum Ratio	9.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Capital Deficit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Leverage Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

TWWD Forecast Model Summary

Table 11  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Projected Net Leverage Ratio (Fitch Ratings)  
 — Net Adjusted Debt to Adjusted Net Revenue (FADS)

	FY2035	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041	FY2042	FY2043	FY2044	FY2045
<b>Calculation of Net Adjusted Debt</b>											
Outstanding Debt Balances											
Future Revenue Bonds	\$168,703,063	\$163,351,749	\$157,714,431	\$151,776,020	\$145,520,859	\$138,927,701	\$131,984,668	\$124,669,224	\$116,963,131	\$108,842,413	\$100,287,317
WIFIA Proceeds	0	0	0	0	0	0	0	0	0	0	0
Capitalized Interest on WIFIA Proceeds	0	0	0	0	0	0	0	0	0	0	0
WIFIA Loan Balance	336,172,891	325,300,140	314,280,110	303,110,808	291,790,212	280,316,272	268,686,911	256,900,023	244,953,476	232,845,106	220,572,721
TWWD Share of Wilsonville Ground Lease	0	0	0	0	0	0	0	0	0	0	0
Total Outstanding Debt	(a) \$504,875,955	\$488,651,888	\$471,994,541	\$454,886,828	\$437,311,071	\$419,243,972	\$400,671,579	\$381,569,248	\$361,916,607	\$341,687,519	\$320,860,038
Capitalized Fixed Charges											
Purchased Water - PWB Ratio	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fixed Services Expense Multiplier	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
Total Capitalized Fixed Charges	(b) \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Adjusted Net Pension Liability											
Total Adjusted UAL (see below)	(c) \$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421
Less Cash and Restricted Funds Available Cash	\$149,146,707	\$118,071,918	\$136,116,996	\$162,391,985	\$163,948,923	\$164,074,573	\$179,056,933	\$209,080,497	\$221,218,543	\$195,359,581	\$166,414,765
Funds Restricted for Debt Service	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
Total Cash/Restricted	(d) \$158,371,384	\$127,302,595	\$145,341,674	\$171,616,662	\$173,173,601	\$173,299,250	\$188,281,610	\$218,305,174	\$230,443,221	\$204,584,259	\$175,639,442
Net Adjusted Debt	(e)=(a)+(b) (e)=(c)-(d)	\$361,222,991	\$341,371,289	\$297,988,587	\$278,855,892	\$260,663,143	\$227,108,390	\$177,982,494	\$146,191,807	\$151,821,681	\$159,939,017
<b>Calculation of Adjusted Net Revenue (FADS)</b>											
Net Revenue (Funds Available for Debt Service)	\$105,464,969	\$107,187,902	\$109,104,240	\$111,467,392	\$113,722,749	\$115,791,301	\$117,971,691	\$120,381,319	\$122,776,109	\$125,124,878	\$127,178,063
Fixed Services Expense	0	0	0	0	0	0	0	0	0	0	0
Operating Leases	0	0	0	0	0	0	0	0	0	0	0
Net Transfers	0	0	0	0	0	0	0	0	0	0	0
Pension Expense (\$7M amortized for 25 yrs @ 6%)	547,587	547,587	547,587	547,587	547,587	547,587	547,587	547,587	547,587	547,587	547,587
Adjusted Net Revenue (FADS)	(f) \$106,012,556	\$107,735,489	\$109,651,827	\$112,014,980	\$114,270,336	\$116,338,888	\$118,519,278	\$120,928,906	\$123,323,696	\$125,672,465	\$127,725,650
Net Adjusted Debt to Adjusted FADS	(e)/(f)	3.41	3.49	2.66	2.44	2.24	1.92	1.47	1.19	1.21	1.25
Target Maximum Ratio	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Capital Deficit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Leverage Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 11  
 Tuolumne Valley Water District  
 Financial Strategy Summary  
 Projected Net Leverage Ratio (Fitch Ratings)  
 — Net Adjusted Debt to Adjusted Net Revenue (FADS)

	FY2046	FY2047	FY2048	FY2049	FY2050	FY2051
<b>Calculation of Net Adjusted Debt</b>						
Outstanding Debt Balances						
Future Revenue Bonds	\$91,277,264	\$81,780,810	\$71,775,592	\$61,233,279	\$50,129,519	\$38,428,879
WIFIA Proceeds	0	0	0	0	0	0
Capitalized Interest on WIFIA Proceeds	0	0	0	0	0	0
WIFIA Loan Balance	208,134,100	195,526,991	182,749,111	169,798,148	156,671,757	143,367,561
TVWD Share of Wilsonville Ground Lease	0	0	0	0	0	0
Total Outstanding Debt	(a) \$299,411,364	\$277,307,801	\$254,524,703	\$231,031,427	\$206,801,275	\$181,796,440
Capitalized Fixed Charges						
Purchased Water - PWB	\$0	\$0	\$0	\$0	\$0	\$0
Ratio	35%	35%	35%	35%	35%	35%
Fixed Services Expense	\$0	\$0	\$0	\$0	\$0	\$0
Multiplier	7	7	7	7	7	7
Total Capitalized Fixed Charges	(b) \$0	\$0	\$0	\$0	\$0	\$0
Adjusted Net Pension Liability						
Total Adjusted UAL (see below)	(c) \$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421	\$14,718,421
Less Cash and Restricted Funds						
Available Cash	\$116,239,251	\$109,315,453	\$128,319,682	\$156,130,217	\$133,164,838	\$166,922,417
Funds Restricted for Debt Service	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
Total Cash/Restricted	(d) \$125,463,929	\$118,540,130	\$137,544,359	\$165,354,894	\$142,389,515	\$176,147,094
Net Adjusted Debt	(e) = (a)+(b) (e) = (c)-(d)	\$188,665,857	\$173,486,092	\$80,394,954	\$79,130,181	\$20,367,767
<b>Calculation of Adjusted Net Revenue (FADS)</b>						
Net Revenue (Funds Available for Debt Service)	\$129,061,884	\$131,122,981	\$133,710,511	\$136,564,600	\$139,113,494	\$141,710,039
Fixed Services Expense	0	0	0	0	0	0
Operating Leases	0	0	0	0	0	0
Net Transfers	0	0	0	0	0	0
Pension Expense (\$7M amortized for 25 yrs @ 6%)	547,587	547,587	547,587	547,587	547,587	547,587
Adjusted Net Revenue (FADS)	(f) \$129,609,471	\$131,670,568	\$134,258,098	\$137,112,187	\$139,661,082	\$142,257,627
Net Adjusted Debt to Adjusted FADS	(e)/(f)	1.46	1.32	0.98	0.57	0.14
Target Maximum Ratio		8.00	8.00	8.00	8.00	8.00
Capital Deficit	\$0	\$0	\$0	\$0	\$0	\$0
Net Leverage Check	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 12  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Balance Summary

	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
<b>FUND BALANCE SUMMARY</b>							
Beginning Fund Balances							
Cash Investments	\$39,110,404	\$32,794,097	\$44,104,573	\$47,892,406	\$81,276,164	\$115,622,341	\$138,972,308
Bond Proceeds	78,191,168	3,349	3,434	3,486	0	0	(0)
Rev. Bond Debt Service	0	0	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
Construction Clearing Account	0	0	0	0	0	0	0
Reimbursement SDC Account	0	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	0	2,416,519	500,804
WIFIA Reserve	0	0	0	0	0	0	0
Totals	\$117,301,572	\$32,797,446	\$53,332,684	\$57,120,569	\$90,500,841	\$127,263,537	\$148,697,789
Ending Fund Balances							
Cash Investments	\$32,794,097	\$44,104,573	\$47,892,406	\$81,276,164	\$115,622,341	\$138,972,308	\$167,259,416
Bond Proceeds	3,349	3,434	3,486	0	0	(0)	0
Rev. Bond Debt Service	0	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
Construction Clearing Account	0	0	0	0	0	0	0
Reimbursement SDC Account	0	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	2,416,519	500,804	3,784
WIFIA Reserve	0	0	0	0	0	0	0
Totals	\$32,797,446	\$53,332,684	\$57,120,569	\$90,500,841	\$127,263,537	\$148,697,789	\$176,487,878
<b>YEAR-END MIN. BALANCE ASSUMPTIONS</b>							
Cash Investments							
Operating Reserve							
Days of O&M in Fund Balance	250	250	250	250	250	250	250
Cash Investments Minimum Ending Balance	\$25,000,000	\$30,000,000	\$35,000,000	\$41,834,625	\$43,711,867	\$45,727,782	\$47,833,664
Minimum Cash Investments Overrides	25,000,000	30,000,000					
Rev. Bond Debt Service	\$0	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677
Reimbursement SDC Account	0	0	0	0	0	0	0
WIFIA Reserve	0	0	0	0	0	0	0
Check Beginning Fund Balances	OK	OK	OK	OK	OK	OK	OK
Check Ending Fund Balances	OK	OK	OK	OK	OK	OK	OK



TVWD Forecast Model Summary

Table 12  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Balance Summary

	FY2031	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037
<b>FUND BALANCE SUMMARY</b>							
Beginning Fund Balances							
Cash Investments	\$167,259,416	\$189,066,523	\$182,280,506	\$151,037,533	\$154,980,963	\$149,146,707	\$118,077,918
Bond Proceeds	0	(0)	0	(0)	0	(0)	0
Rev. Bond Debt Service	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
Construction Clearing Account	0	0	0	0	0	0	0
Reimbursement SDC Account	0	0	0	0	0	0	0
Improvement SDC Account	3,784	29	0	0	0	0	0
WIFIA Reserve	0	0	0	0	0	0	0
Totals	\$176,487,878	\$198,291,229	\$191,505,184	\$160,262,210	\$164,205,641	\$158,371,384	\$127,302,595
Ending Fund Balances							
Cash Investments	\$189,066,523	\$182,280,506	\$151,037,533	\$154,980,963	\$149,146,707	\$118,077,918	\$136,116,996
Bond Proceeds	(0)	0	(0)	0	(0)	0	(0)
Rev. Bond Debt Service	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
Construction Clearing Account	0	0	0	0	0	0	0
Reimbursement SDC Account	0	0	0	0	0	0	0
Improvement SDC Account	29	0	0	0	0	0	0
WIFIA Reserve	0	0	0	0	0	0	0
Totals	\$198,291,229	\$191,505,184	\$160,262,210	\$164,205,641	\$158,371,384	\$127,302,595	\$145,341,674
<b>YEAR-END MIN. BALANCE ASSUMPTIONS</b>							
Cash Investments							
Operating Reserve							
Days of O&M in Fund Balance	250	250	250	250	250	250	250
Cash Investments Minimum Ending Balance	\$50,027,976	\$52,313,112	\$54,692,374	\$57,168,962	\$59,747,066	\$62,429,547	\$65,232,433
Minimum Cash Investments Overrides							
Rev. Bond Debt Service	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677
Reimbursement SDC Account	0	0	0	0	0	0	0
WIFIA Reserve	0	0	0	0	0	0	0
Check Beginning Fund Balances	OK	OK	OK	OK	OK	OK	OK
Check Ending Fund Balances	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 12  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Balance Summary

	FY2038	FY2039	FY2040	FY2041	FY2042	FY2043	FY2044
<b>FUND BALANCE SUMMARY</b>							
Beginning Fund Balances							
Cash Investments	\$136,116,996	\$162,391,985	\$163,948,923	\$164,074,573	\$179,056,933	\$209,080,497	\$221,218,543
Bond Proceeds	(0)	0	(0)	0	(0)	0	(0)
Rev. Bond Debt Service	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
Construction Clearing Account	0	0	0	0	0	0	0
Reimbursement SDC Account	0	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	0	0	0
WIFIA Reserve	0	0	0	0	0	0	0
Totals	\$145,341,674	\$171,616,662	\$173,173,601	\$173,299,250	\$188,281,610	\$218,305,174	\$230,443,221
Ending Fund Balances							
Cash Investments	\$162,391,985	\$163,948,923	\$164,074,573	\$179,056,933	\$209,080,497	\$221,218,543	\$195,359,581
Bond Proceeds	0	(0)	0	(0)	0	(0)	0
Rev. Bond Debt Service	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
Construction Clearing Account	0	0	0	0	0	0	0
Reimbursement SDC Account	0	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	0	0	0
WIFIA Reserve	0	0	0	0	0	0	0
Totals	\$171,616,662	\$173,173,601	\$173,299,250	\$188,281,610	\$218,305,174	\$230,443,221	\$204,584,259
<b>YEAR-END MIN. BALANCE ASSUMPTIONS</b>							
Cash Investments							
Operating Reserve							
Days of O&M in Fund Balance	250	250	250	250	250	250	250
Cash Investments Minimum Ending Balance	\$68,161,684	\$71,222,410	\$74,420,450	\$77,762,593	\$81,254,748	\$84,904,272	\$88,717,529
Minimum Cash Investments Overrides							
Rev. Bond Debt Service	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677
Reimbursement SDC Account	0	0	0	0	0	0	0
WIFIA Reserve	0	0	0	0	0	0	0
Check Beginning Fund Balances	OK	OK	OK	OK	OK	OK	OK
Check Ending Fund Balances	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 12  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Balance Summary

	FY2045	FY2046	FY2047	FY2048	FY2049	FY2050	FY2051
<b>FUND BALANCE SUMMARY</b>							
Beginning Fund Balances							
Cash Investments	\$195,359,581	\$166,414,765	\$116,239,251	\$109,315,453	\$128,319,682	\$156,130,217	\$133,164,838
Bond Proceeds	0	(0)	0	(0)	0	(0)	0
Rev. Bond Debt Service	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
Construction Clearing Account	0	0	0	0	0	0	0
Reimbursement SDC Account	0	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	0	0	0
WIFIA Reserve	0	0	0	0	0	0	0
Totals	\$204,584,259	\$175,639,442	\$125,463,929	\$118,540,130	\$137,544,359	\$165,354,894	\$142,389,515
Ending Fund Balances							
Cash Investments	\$166,414,765	\$116,239,251	\$109,315,453	\$128,319,682	\$156,130,217	\$133,164,838	\$166,922,417
Bond Proceeds	(0)	0	(0)	0	(0)	0	(0)
Rev. Bond Debt Service	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
Construction Clearing Account	0	0	0	0	0	0	0
Reimbursement SDC Account	0	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	0	0	0
WIFIA Reserve	0	0	0	0	0	0	0
Totals	\$175,639,442	\$125,463,929	\$118,540,130	\$137,544,359	\$165,354,894	\$142,389,515	\$176,147,094
<b>YEAR-END MIN. BALANCE ASSUMPTIONS</b>							
Cash Investments							
Operating Reserve							
Days of O&M in Fund Balance	250	250	250	250	250	250	250
Cash Investments Minimum Ending Balance	\$92,701,948	\$96,865,770	\$101,216,425	\$105,763,064	\$110,513,649	\$115,468,996	\$120,647,121
Minimum Cash Investments Overrides							
Rev. Bond Debt Service	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677
Reimbursement SDC Account	0	0	0	0	0	0	0
WIFIA Reserve	0	0	0	0	0	0	0
Check Beginning Fund Balances	OK	OK	OK	OK	OK	OK	OK
Check Ending Fund Balances	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 13  
Tualatin Valley Water District  
Financial Strategy Summary  
Fund Summary – Cash Investments

Description	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
Interest Rate on Fund Balance	3.00%	2.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>									
Beginning Cash Investments Balance	\$39,110,404	\$32,794,097	\$44,104,573	\$47,892,406	\$81,276,164	\$115,622,341	\$138,972,308	\$167,259,416	\$189,066,523
Total User Charges	97,731,833	117,431,633	129,970,703	134,719,671	139,627,390	144,670,153	149,820,274	155,076,317	160,436,637
Non-Rate Revenues									
Meter & Svc Revenue	1,757,975	1,818,775	1,880,050	1,946,075	2,017,325	2,088,575	2,088,575	2,160,300	2,237,250
Special Service & Turn On Fees	2,069	2,131	2,195	2,261	2,328	2,398	2,470	2,544	2,621
Penalty Fees	12,810	13,195	13,591	13,998	14,418	14,851	15,296	15,755	16,228
Dispatch Fees	0	0	0	0	0	0	0	0	0
Miscellaneous Income	214,700	221,141	227,775	234,608	241,646	248,896	256,363	264,053	271,975
Plan Review	27,716	28,547	29,404	30,286	31,195	32,130	33,094	34,087	35,110
Contract Reimbursements	530,450	546,364	562,754	579,637	597,026	614,937	633,385	652,387	671,958
Inspection Fees	97,231	100,148	103,153	106,247	109,435	112,718	116,099	119,582	123,170
Backflow Program Reimbursement	428,206	441,052	454,283	467,912	481,949	496,408	511,300	526,639	542,438
Power Generation Station	26,602	27,400	28,222	0	0	0	0	0	0
Rental Property Income	69,091	71,164	73,299	75,498	77,763	80,096	82,498	84,973	87,523
Sales to Other Funds – Partner Share	1,943,028	2,157,104	2,352,562	2,458,630	2,591,370	2,750,043	2,925,308	3,117,706	3,324,283
COB Wheeling Revenue	762,684	591,383	407,606	210,704	217,025	223,536	230,242	237,149	244,264
Transfers In									
WIFIA Reserve to Cash Investments	0	0	0	0	0	0	0	0	0
Maturities from Investment Portfolio	43,660,000	9,000,000	0	0	0	0	0	0	0
Maturities from WIFIA-Funded Investments	73,300,000	0	0	0	0	0	0	0	0
Interest Earnings - Cash Investments	1,078,568	961,233	689,977	968,764	1,476,739	1,909,460	2,296,738	2,672,445	2,785,103
<b>Total Sources of Funds</b>	<b>\$260,753,367</b>	<b>\$166,205,366</b>	<b>\$180,900,147</b>	<b>\$189,706,698</b>	<b>\$226,959,773</b>	<b>\$266,941,542</b>	<b>\$295,920,950</b>	<b>\$330,007,355</b>	<b>\$357,463,082</b>
<b>Uses of Funds</b>									
Net O&M Expenditures	\$53,534,256	\$52,818,205	\$55,051,064	\$55,349,123	\$60,180,910	\$62,960,217	\$65,863,518	\$68,887,616	\$72,037,018
Capital Outlays from Budget	500,000	522,500	546,013	570,583	596,259	623,091	651,130	680,431	711,050
Transfers Out									
Cash Investments to Construction Clearing Account	\$170,274,652	\$61,660,147	\$66,758,785	\$41,858,948	\$28,721,449	\$34,861,107	\$32,621,816	\$41,846,214	\$72,910,437
Cash Investments to Rev. Bond Debt Service	3,650,362	7,099,941	10,651,880	10,651,880	14,151,557	14,150,307	14,150,557	14,152,057	14,149,557
Cash Investments to WIFIA Reserve	0	0	0	0	7,687,257	15,374,514	15,374,514	15,374,514	15,374,514
Transfers Out for Reserves									
WIFIA-Funded Investments	0	0	0	0	0	0	0	0	0
New Investments Purchased (cost)	0	0	0	0	0	0	0	0	0
Ending Cash Investments Balance	32,794,097	44,104,573	47,892,406	81,276,164	115,622,341	138,972,308	167,259,416	189,066,523	182,280,506
<b>Total Uses of Funds</b>	<b>\$260,753,367</b>	<b>\$166,205,366</b>	<b>\$180,900,147</b>	<b>\$189,706,698</b>	<b>\$226,959,773</b>	<b>\$266,941,542</b>	<b>\$295,920,950</b>	<b>\$330,007,355</b>	<b>\$357,463,082</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$25,000,000</b>	<b>\$30,000,000</b>	<b>\$35,000,000</b>	<b>\$41,834,625</b>	<b>\$43,711,867</b>	<b>\$45,727,782</b>	<b>\$47,833,664</b>	<b>\$50,027,976</b>	<b>\$52,313,112</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 13  
Tualatin Valley Water District  
Financial Strategy Summary  
Fund Summary – Cash Investments

Description	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>									
Beginning Cash Investments Balance	\$182,280,506	\$151,037,533	\$154,980,963	\$149,146,707	\$118,077,918	\$136,116,996	\$162,391,985	\$163,948,923	\$164,074,573
Total User Charges	165,899,366	171,462,416	177,123,469	182,879,982	188,823,581	194,960,347	201,296,559	207,838,697	214,593,455
<b>Non-Rate Revenues</b>									
Meter & Svc Revenue	2,314,675	2,396,850	2,479,975	2,567,850	2,656,200	2,749,775	2,848,575	2,947,850	3,052,350
Special Service & Turn On Fees	2,699	2,780	2,864	2,950	3,038	3,129	3,223	3,320	3,419
Penalty Fees	16,715	17,216	17,733	18,265	18,812	19,377	19,958	20,557	21,174
Dispatch Fees	0	0	0	0	0	0	0	0	0
Miscellaneous Income	280,134	288,538	297,195	306,110	315,294	324,752	334,495	344,530	354,866
Plan Review	36,163	37,248	38,365	39,516	40,702	41,923	43,181	44,476	45,810
Contract Reimbursements	692,117	712,880	734,267	756,295	778,984	802,353	826,424	851,217	876,753
Inspection Fees	126,865	130,671	134,591	138,629	142,788	147,071	151,483	156,028	160,709
Backflow Program Reimbursement	558,711	575,473	592,737	610,519	628,835	647,700	667,131	687,145	707,759
Power Generation Station	0	0	0	0	0	0	0	0	0
Rental Property Income	90,148	92,853	95,638	98,507	101,463	104,507	107,642	110,871	114,197
Sales to Other Funds – Partner Share	984,685	1,028,996	1,075,301	1,123,690	1,174,256	1,227,097	1,282,317	1,340,021	1,400,322
COB Wheeling Revenue	251,592	259,139	266,914	274,921	283,169	291,664	300,414	309,426	318,709
<b>Transfers In</b>									
WIFIA Reserve to Cash Investments	0	0	0	0	0	0	0	0	0
Maturities from Investment Portfolio	0	0	0	0	0	0	0	0	0
Maturities from WIFIA-Funded Investments	0	0	0	0	0	0	0	0	0
Interest Earnings - Cash Investments	2,499,885	2,295,139	2,280,958	2,004,185	1,906,462	2,238,817	2,447,557	2,460,176	2,573,486
<b>Total Sources of Funds</b>	<b>\$356,034,263</b>	<b>\$330,337,732</b>	<b>\$340,120,969</b>	<b>\$339,968,125</b>	<b>\$314,951,500</b>	<b>\$339,675,509</b>	<b>\$372,720,942</b>	<b>\$381,063,236</b>	<b>\$388,297,581</b>
<b>Uses of Funds</b>									
Net O&M Expenditures	\$75,315,435	\$78,727,159	\$82,277,913	\$85,971,458	\$89,830,766	\$93,864,086	\$98,078,408	\$102,481,762	\$107,083,546
Capital Outlays from Budget	743,048	776,485	811,427	847,941	886,098	925,972	967,641	1,011,185	1,056,688
<b>Transfers Out</b>									
Cash Investments to Construction Clearing Account	\$99,415,677	\$66,326,305	\$78,358,602	\$105,544,738	\$58,591,819	\$52,968,145	\$80,201,649	\$83,968,146	\$71,575,843
Cash Investments to Rev. Bond Debt Service	14,148,057	14,152,307	14,151,807	14,151,557	14,151,307	14,150,807	14,149,807	14,153,057	14,150,057
Cash Investments to WIFIA Reserve	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514
<b>Transfers Out for Reserves</b>									
WIFIA-Funded Investments	0	0	0	0	0	0	0	0	0
New Investments Purchased (cost)	0	0	0	0	0	0	0	0	0
Ending Cash Investments Balance	151,037,533	154,980,963	149,146,707	118,077,918	136,116,996	162,391,985	163,948,923	164,074,573	179,056,933
<b>Total Uses of Funds</b>	<b>\$356,034,263</b>	<b>\$330,337,732</b>	<b>\$340,120,969</b>	<b>\$339,968,125</b>	<b>\$314,951,500</b>	<b>\$339,675,509</b>	<b>\$372,720,942</b>	<b>\$381,063,236</b>	<b>\$388,297,581</b>
<b>Minimum Fund Balance Assumptions</b>									
Check Sources/Uses	\$54,692,374	\$57,168,962	\$59,747,066	\$62,429,547	\$65,232,433	\$68,161,684	\$71,222,410	\$74,420,450	\$77,762,593
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 13  
Tualatin Valley Water District  
Financial Strategy Summary  
Fund Summary – Cash Investments

Description	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047	FY2048	FY2049	FY2050
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>									
Beginning Cash Investments Balance	\$179,056,933	\$209,080,497	\$221,218,543	\$195,359,581	\$166,414,765	\$116,239,251	\$109,315,453	\$128,319,682	\$156,130,217
Total User Charges	221,567,742	228,768,693	236,203,676	243,880,295	251,806,405	259,990,113	268,439,792	277,164,085	286,171,918
Non-Rate Revenues									
Meter & Svc Revenue	3,157,325	3,267,525	3,382,950	3,499,325	3,620,450	3,747,275	3,879,325	4,017,075	4,155,300
Special Service & Turn On Fees	3,522	3,628	3,736	3,848	3,964	4,083	4,205	4,332	4,461
Penalty Fees	21,809	22,463	23,137	23,831	24,546	25,282	26,041	26,822	27,627
Dispatch Fees	0	0	0	0	0	0	0	0	0
Miscellaneous Income	365,512	376,477	387,771	399,405	411,387	423,728	436,440	449,533	463,019
Plan Review	47,185	48,600	50,058	51,560	53,107	54,700	56,341	58,031	59,772
Contract Reimbursements	903,056	930,147	958,052	986,793	1,016,397	1,046,889	1,078,296	1,110,645	1,143,964
Inspection Fees	165,530	170,496	175,611	180,879	186,306	191,895	197,652	203,581	209,689
Backflow Program Reimbursement	728,992	750,861	773,387	796,589	820,487	845,101	870,454	896,568	923,465
Power Generation Station	0	0	0	0	0	0	0	0	0
Rental Property Income	117,623	121,152	124,786	128,530	132,386	136,357	140,448	144,661	149,001
Sales to Other Funds – Partner Share	1,463,336	1,529,186	1,598,000	1,669,910	1,745,056	1,823,583	1,905,645	1,991,399	2,081,011
COB Wheeling Revenue	328,270	338,118	348,262	358,710	369,471	380,555	391,972	403,731	415,843
<b>Transfers In</b>									
WIFIA Reserve to Cash Investments	0	0	0	0	0	0	0	0	0
Maturities from Investment Portfolio	0	0	0	0	0	0	0	0	0
Maturities from WIFIA-Funded Investments	0	0	0	0	0	0	0	0	0
Interest Earnings - Cash Investments	2,911,031	3,227,243	3,124,336	2,713,308	2,119,905	1,691,660	1,782,264	2,133,374	2,169,713
<b>Total Sources of Funds</b>	<b>\$410,837,864</b>	<b>\$448,635,087</b>	<b>\$468,372,306</b>	<b>\$450,052,564</b>	<b>\$428,724,630</b>	<b>\$386,600,474</b>	<b>\$388,524,326</b>	<b>\$416,923,519</b>	<b>\$454,105,000</b>
<b>Uses of Funds</b>									
Net O&M Expenditures	\$111,891,850	\$116,916,852	\$122,167,254	\$127,653,290	\$133,386,351	\$139,376,612	\$145,636,733	\$152,177,607	\$158,999,659
Capital Outlays from Budget	1,104,239	1,153,930	1,205,857	1,260,121	1,316,826	1,376,083	1,438,007	1,502,717	1,570,340
<b>Transfers Out</b>									
Cash Investments to Construction Clearing Account	\$59,235,957	\$79,821,442	\$120,113,293	\$125,198,568	\$148,259,631	\$107,006,005	\$83,603,584	\$77,585,657	\$130,846,344
Cash Investments to Rev. Bond Debt Service	14,150,807	14,149,807	14,151,807	14,151,307	14,148,057	14,151,807	14,151,807	14,152,807	14,149,307
Cash Investments to WIFIA Reserve	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514
<b>Transfers Out for Reserves</b>									
WIFIA-Funded Investments	0	0	0	0	0	0	0	0	0
New Investments Purchased (cost)	0	0	0	0	0	0	0	0	0
Ending Cash Investments Balance	209,080,497	221,218,543	195,359,581	166,414,765	116,239,251	109,315,453	128,319,682	156,130,217	133,164,838
<b>Total Uses of Funds</b>	<b>\$410,837,864</b>	<b>\$448,635,087</b>	<b>\$468,372,306</b>	<b>\$450,052,564</b>	<b>\$428,724,630</b>	<b>\$386,600,474</b>	<b>\$388,524,326</b>	<b>\$416,923,519</b>	<b>\$454,105,000</b>
<b>Minimum Fund Balance Assumptions</b>									
Check Sources/Uses	\$81,254,748	\$84,904,272	\$88,717,529	\$92,701,948	\$96,865,770	\$101,216,425	\$105,763,064	\$110,513,649	\$115,468,996
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 13  
 Tuatatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Cash Investments

Description	FY2051
Interest Rate on Fund Balance	1.50%
<b>Sources of Funds</b>	
Beginning Cash Investments Balance	\$133,164,838
Total User Charges	295,472,505
<b>Non-Rate Revenues</b>	
Meter & Svc Revenue	4,303,500
Special Service & Turn On Fees	4,595
Penalty Fees	28,456
Dispatch Fees	0
Miscellaneous Income	476,910
Plan Review	61,565
Contract Reimbursements	1,178,283
Inspection Fees	215,979
Backflow Program Reimbursement	951,169
Power Generation Station	0
Rental Property Income	153,471
Sales to Other Funds – Partner Share	2,174,657
COB Wheeling Revenue	428,318
<b>Transfers In</b>	
WIFIA Reserve to Cash Investments	0
Maturities from Investment Portfolio	0
Maturities from WIFIA-Funded Investments	0
Interest Earnings - Cash Investments	2,250,654
<b>Total Sources of Funds</b>	<b>\$440,864,900</b>
<b>Uses of Funds</b>	
Net O&M Expenditures	\$166,128,393
Capital Outlays from Budget	1,641,005
<b>Transfers Out</b>	
Cash Investments to Construction Clearing Account	\$76,647,515
Cash Investments to Rev. Bond Debt Service	14,151,057
Cash Investments to WIFIA Reserve	15,374,514
Transfers Out for Reserves	0
WIFIA-Funded Investments	0
New Investments Purchased (cost)	0
Ending Cash Investments Balance	166,922,417
<b>Total Uses of Funds</b>	<b>\$440,864,900</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$120,647,121</b>
Check Sources/Uses	OK
Check Ending Fund Balance	OK

TVWD Forecast Model Summary

Table 14  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Bond Proceeds

Description	FY2024 3.00%	FY2025 2.50%	FY2026 1.50%	FY2027 1.50%	FY2028 1.50%	FY2029 1.50%
<b>Interest Rate on Fund Balance</b>						
Sources of Funds						
Beginning Bond Proceeds Balance	\$78,191,168	\$3,349	\$3,434	\$3,486	\$0	\$0
Bond Proceeds	0	130,000,000	0	0	0	0
Interest Earnings	296,566	85	52	26	0	0
<b>Total Sources of Funds</b>	<b>\$78,487,734</b>	<b>\$130,003,434</b>	<b>\$3,486</b>	<b>\$3,512</b>	<b>\$0</b>	<b>\$0</b>
Uses of Funds						
Issuance Costs	\$0	\$975,000	\$0	\$0	\$0	\$0
STD Retirement	0	0	0	0	0	0
Transfers Out						
Bond Proceeds to Rev. Bond Debt Service	\$0	\$9,224,677	\$0	\$0	\$0	\$0
Bond Proceeds to Construction Clearing Account	78,484,385	119,800,323	0	3,512	0	0
Use of Prior Bond Proceeds for CIP			0	0	0	0
Ending Bond Proceeds Balance	3,349	3,434	3,486	0	0	(0)
<b>Total Uses of Funds</b>	<b>\$78,487,734</b>	<b>\$130,003,434</b>	<b>\$3,486</b>	<b>\$3,512</b>	<b>\$0</b>	<b>\$0</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK



TVWD Forecast Model Summary

Table 14  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Bond Proceeds

Description	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Bond Proceeds Balance	(\$0)	\$0	(\$0)	\$0	(\$0)	\$0
Bond Proceeds	0	0	0	0	0	0
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>
<b>Uses of Funds</b>						
Issuance Costs	\$0	\$0	\$0	\$0	\$0	\$0
STD Retirement	0	0	0	0	0	0
Transfers Out						
Bond Proceeds to Rev. Bond Debt Service	\$0	\$0	\$0	\$0	\$0	\$0
Bond Proceeds to Construction Clearing Account	(0)	0	(0)	0	(0)	0
Use of Prior Bond Proceeds for CIP	0	0	0	0	0	0
Ending Bond Proceeds Balance	0	(0)	0	(0)	0	(0)
<b>Total Uses of Funds</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 14  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Bond Proceeds

Description	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Bond Proceeds Balance	(\$0)	\$0	(\$0)	\$0	(\$0)	\$0
Bond Proceeds	0	0	0	0	0	0
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>
<b>Uses of Funds</b>						
Issuance Costs	\$0	\$0	\$0	\$0	\$0	\$0
STD Retirement	0	0	0	0	0	0
Transfers Out						
Bond Proceeds to Rev. Bond Debt Service	\$0	\$0	\$0	\$0	\$0	\$0
Bond Proceeds to Construction Clearing Account	(0)	0	(0)	0	(0)	0
Use of Prior Bond Proceeds for CIP	0	0	0	0	0	0
Ending Bond Proceeds Balance	0	(0)	0	(0)	0	(0)
<b>Total Uses of Funds</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 14  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Bond Proceeds

Description	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Bond Proceeds Balance	(\$0)	\$0	(\$0)	\$0	(\$0)	\$0
Bond Proceeds	0	0	0	0	0	0
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>
<b>Uses of Funds</b>						
Issuance Costs	\$0	\$0	\$0	\$0	\$0	\$0
STD Retirement	0	0	0	0	0	0
Transfers Out						
Bond Proceeds to Rev. Bond Debt Service	\$0	\$0	\$0	\$0	\$0	\$0
Bond Proceeds to Construction Clearing Account	(0)	0	(0)	0	(0)	0
Use of Prior Bond Proceeds for CIP	0	0	0	0	0	0
Ending Bond Proceeds Balance	0	(0)	0	(0)	0	(0)
<b>Total Uses of Funds</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 14  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Bond Proceeds

Description	FY2048 1.50%	FY2049 1.50%	FY2050 1.50%	FY2051 1.50%
<b>Interest Rate on Fund Balance</b>				
Sources of Funds				
Beginning Bond Proceeds Balance	(\$0)	\$0	(\$0)	\$0
Bond Proceeds	0	0	0	0
Interest Earnings	0	0	0	0
<b>Total Sources of Funds</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>
Uses of Funds				
Issuance Costs	\$0	\$0	\$0	\$0
STD Retirement	0	0	0	0
Transfers Out				
Bond Proceeds to Rev. Bond Debt Service	\$0	\$0	\$0	\$0
Bond Proceeds to Construction Clearing Account	(0)	0	(0)	0
Use of Prior Bond Proceeds for CIP	0	0	0	0
Ending Bond Proceeds Balance	0	(0)	0	(0)
<b>Total Uses of Funds</b>	<b>(\$0)</b>	<b>\$0</b>	<b>(\$0)</b>	<b>\$0</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Check Sources/Uses	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 15  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Rev. Bond Debt Service

Description	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Interest Rate on Fund Balance	3.00%	2.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Rev. Bond Debt Service Balance	\$0	\$0	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677
Transfers In						
Cash Investments to Rev. Bond Debt Service	\$3,650,362	\$7,099,941	\$10,651,880	\$10,651,880	\$14,151,557	\$14,150,307
Bond Proceeds to Rev. Bond Debt Service	0	9,224,677	0	0	0	0
Interest Earnings	0	115,308	138,370	138,370	138,370	138,370
<b>Total Sources of Funds</b>	<b>\$3,650,362</b>	<b>\$16,439,927</b>	<b>\$20,014,927</b>	<b>\$20,014,927</b>	<b>\$23,514,604</b>	<b>\$23,513,354</b>
<b>Uses of Funds</b>						
Total Debt Service	\$3,650,362	\$7,215,250	\$10,790,250	\$10,790,250	\$14,289,927	\$14,288,677
Ending Rev. Bond Debt Service Balance	0	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
<b>Total Uses of Funds</b>	<b>\$3,650,362</b>	<b>\$16,439,927</b>	<b>\$20,014,927</b>	<b>\$20,014,927</b>	<b>\$23,514,604</b>	<b>\$23,513,354</b>
<b>Minimum Fund Balance Assumptions</b>						
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 15  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Rev. Bond Debt Service

Description	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Rev. Bond Debt Service Balance	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677
Transfers In						
Cash Investments to Rev. Bond Debt Service	\$14,150,557	\$14,152,057	\$14,149,557	\$14,148,057	\$14,152,307	\$14,151,807
Bond Proceeds to Rev. Bond Debt Service	0	0	0	0	0	0
Interest Earnings	138,370	138,370	138,370	138,370	138,370	138,370
<b>Total Sources of Funds</b>	<b>\$23,513,604</b>	<b>\$23,515,104</b>	<b>\$23,512,604</b>	<b>\$23,511,104</b>	<b>\$23,515,354</b>	<b>\$23,514,854</b>
<b>Uses of Funds</b>						
Total Debt Service	\$14,288,927	\$14,290,427	\$14,287,927	\$14,286,427	\$14,290,677	\$14,290,177
Ending Rev. Bond Debt Service Balance	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
<b>Total Uses of Funds</b>	<b>\$23,513,604</b>	<b>\$23,515,104</b>	<b>\$23,512,604</b>	<b>\$23,511,104</b>	<b>\$23,515,354</b>	<b>\$23,514,854</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 15  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Rev. Bond Debt Service

Description	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Rev. Bond Debt Service Balance	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677
Transfers In						
Cash Investments to Rev. Bond Debt Service	\$14,151,557	\$14,151,307	\$14,150,807	\$14,149,807	\$14,153,057	\$14,150,057
Bond Proceeds to Rev. Bond Debt Service	0	0	0	0	0	0
Interest Earnings	138,370	138,370	138,370	138,370	138,370	138,370
<b>Total Sources of Funds</b>	<b>\$23,514,604</b>	<b>\$23,514,354</b>	<b>\$23,513,854</b>	<b>\$23,512,854</b>	<b>\$23,516,104</b>	<b>\$23,513,104</b>
<b>Uses of Funds</b>						
Total Debt Service	\$14,289,927	\$14,289,677	\$14,289,177	\$14,288,177	\$14,291,427	\$14,288,427
Ending Rev. Bond Debt Service Balance	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
<b>Total Uses of Funds</b>	<b>\$23,514,604</b>	<b>\$23,514,354</b>	<b>\$23,513,854</b>	<b>\$23,512,854</b>	<b>\$23,516,104</b>	<b>\$23,513,104</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 15  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Rev. Bond Debt Service

Description	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Rev. Bond Debt Service Balance	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677
Transfers In						
Cash Investments to Rev. Bond Debt Service	\$14,150,807	\$14,149,807	\$14,151,807	\$14,151,307	\$14,148,057	\$14,151,807
Bond Proceeds to Rev. Bond Debt Service	0	0	0	0	0	0
Interest Earnings	138,370	138,370	138,370	138,370	138,370	138,370
<b>Total Sources of Funds</b>	<b>\$23,513,854</b>	<b>\$23,512,854</b>	<b>\$23,514,854</b>	<b>\$23,514,354</b>	<b>\$23,511,104</b>	<b>\$23,514,854</b>
<b>Uses of Funds</b>						
Total Debt Service	\$14,289,177	\$14,288,177	\$14,290,177	\$14,289,677	\$14,286,427	\$14,290,177
Ending Rev. Bond Debt Service Balance	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677	9,224,677
<b>Total Uses of Funds</b>	<b>\$23,513,854</b>	<b>\$23,512,854</b>	<b>\$23,514,854</b>	<b>\$23,514,354</b>	<b>\$23,511,104</b>	<b>\$23,514,854</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK



Table 15  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Rev. Bond Debt Service

Description	FY2048	FY2049	FY2050	FY2051
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>				
Beginning Rev. Bond Debt Service Balance	\$9,224,677	\$9,224,677	\$9,224,677	\$9,224,677
Transfers In				
Cash Investments to Rev. Bond Debt Service	\$14,151,807	\$14,152,807	\$14,149,307	\$14,151,057
Bond Proceeds to Rev. Bond Debt Service	0	0	0	0
Interest Earnings	138,370	138,370	138,370	138,370
<b>Total Sources of Funds</b>	<b>\$23,514,854</b>	<b>\$23,515,854</b>	<b>\$23,512,354</b>	<b>\$23,514,104</b>
<b>Uses of Funds</b>				
Total Debt Service	\$14,290,177	\$14,291,177	\$14,287,677	\$14,289,427
Ending Rev. Bond Debt Service Balance	9,224,677	9,224,677	9,224,677	9,224,677
<b>Total Uses of Funds</b>	<b>\$23,514,854</b>	<b>\$23,515,854</b>	<b>\$23,512,354</b>	<b>\$23,514,104</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>	<b>\$9,224,677</b>
Check Sources/Uses	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 16  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Construction Clearing Account

Description	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Interest Rate on Fund Balance	3.00%	2.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Construction Clearing Account Balance	\$0	\$0	\$0	\$0	\$0	\$0
Transfers In						
Cash Investments to Construction Clearing Account	\$170,274,652	\$61,660,147	\$66,758,785	\$41,858,948	\$28,721,449	\$34,861,107
Bond Proceeds to Construction Clearing Account	78,484,385	119,800,323	0	3,512	0	0
Reimbursement SDC Account to Construction Clearing Account	863,960	842,503	819,843	795,939	770,751	3,829,719
Improvement SDC Account to Construction Clearing Account	3,645,343	3,554,810	3,459,198	3,358,339	853,668	1,937,594
WIFIA Reserve to Construction Clearing Account	144,106,518	0	0	0	0	0
Grant Funding	0	7,561,607	4,938,393	600,000	600,000	600,000
Short-Term Debt	0	0	0	0	0	0
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$397,374,857</b>	<b>\$193,419,390</b>	<b>\$75,976,218</b>	<b>\$46,616,738</b>	<b>\$30,945,868</b>	<b>\$41,228,420</b>
<b>Uses of Funds</b>						
Capital Projects funded from Cash/Reserves	\$170,274,652	\$61,660,147	\$66,758,785	\$41,858,948	\$28,721,449	\$34,861,107
Projects funded from Debt Proceeds (incl fund Int.)	222,590,903	119,800,323	0	3,512	0	0
SDC-Funded Capital Projects	4,509,302	4,397,313	4,279,041	4,154,278	1,624,419	5,767,313
Grant Funding	0	7,561,607	4,938,393	600,000	600,000	600,000
Ending Construction Clearing Account Balance	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$397,374,857</b>	<b>\$193,419,390</b>	<b>\$75,976,218</b>	<b>\$46,616,738</b>	<b>\$30,945,868</b>	<b>\$41,228,420</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Total Capital Projects & Outlays	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 16  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Construction Clearing Account

Description	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Construction Clearing Account Balance	\$0	\$0	\$0	\$0	\$0	\$0
Transfers In						
Cash Investments to Construction Clearing Account	\$32,621,816	\$41,846,214	\$72,910,437	\$99,415,677	\$66,326,305	\$78,358,602
Bond Proceeds to Construction Clearing Account	(0)	0	(0)	0	(0)	0
Reimbursement SDC Account to Construction Clearing Account	3,627,291	3,415,234	3,193,243	2,961,008	2,718,205	2,464,506
Improvement SDC Account to Construction Clearing Account	500,804	3,784	29	0	0	0
WIFIA Reserve to Construction Clearing Account	0	0	0	0	0	0
Grant Funding	0	0	0	0	0	0
Short-Term Debt	0	0	0	0	0	0
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$36,749,911</b>	<b>\$45,265,232</b>	<b>\$76,103,709</b>	<b>\$102,376,685</b>	<b>\$69,044,510</b>	<b>\$80,823,108</b>
<b>Uses of Funds</b>						
Capital Projects funded from Cash/Reserves	\$32,621,816	\$41,846,214	\$72,910,437	\$99,415,677	\$66,326,305	\$78,358,602
Projects funded from Debt Proceeds (incl fund Int.)	(0)	0	(0)	0	(0)	0
SDC-Funded Capital Projects	4,128,095	3,419,018	3,193,272	2,961,008	2,718,205	2,464,506
Grant Funding	0	0	0	0	0	0
Ending Construction Clearing Account Balance	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$36,749,911</b>	<b>\$45,265,232</b>	<b>\$76,103,709</b>	<b>\$102,376,685</b>	<b>\$69,044,510</b>	<b>\$80,823,108</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Total Capital Projects & Outlays	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 16  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Construction Clearing Account

Description	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Construction Clearing Account Balance	\$0	\$0	\$0	\$0	\$0	\$0
Transfers In						
Cash Investments to Construction Clearing Account	\$105,544,738	\$58,591,819	\$52,968,145	\$80,201,649	\$83,968,146	\$71,575,843
Bond Proceeds to Construction Clearing Account	(0)	0	(0)	0	(0)	0
Reimbursement SDC Account to Construction Clearing Account	2,199,571	1,923,054	1,634,596	1,333,830	1,020,380	693,858
Improvement SDC Account to Construction Clearing Account	0	0	0	0	0	0
WIFIA Reserve to Construction Clearing Account	0	0	0	0	0	0
Grant Funding	0	0	0	0	0	0
Short-Term Debt	0	0	0	0	0	0
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<u>\$107,744,309</u>	<u>\$60,514,873</u>	<u>\$54,602,741</u>	<u>\$81,535,479</u>	<u>\$84,988,526</u>	<u>\$72,269,702</u>
<b>Uses of Funds</b>						
Capital Projects funded from Cash/Reserves	\$105,544,738	\$58,591,819	\$52,968,145	\$80,201,649	\$83,968,146	\$71,575,843
Projects funded from Debt Proceeds (incl fund Int.)	(0)	0	(0)	0	(0)	0
SDC-Funded Capital Projects	2,199,571	1,923,054	1,634,596	1,333,830	1,020,380	693,858
Grant Funding	0	0	0	0	0	0
Ending Construction Clearing Account Balance	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<u>\$107,744,309</u>	<u>\$60,514,873</u>	<u>\$54,602,741</u>	<u>\$81,535,479</u>	<u>\$84,988,526</u>	<u>\$72,269,702</u>
<b>Minimum Fund Balance Assumptions</b>	\$0	\$0	\$0	\$0	\$0	\$0
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Total Capital Projects & Outlays	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 16  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Construction Clearing Account

Description	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Construction Clearing Account Balance	\$0	\$0	\$0	\$0	\$0	\$0
Transfers In						
Cash Investments to Construction Clearing Account	\$59,235,957	\$79,821,442	\$120,113,293	\$125,198,568	\$148,259,631	\$107,006,005
Bond Proceeds to Construction Clearing Account	(0)	0	(0)	0	(0)	0
Reimbursement SDC Account to Construction Clearing Account	353,868	0	0	0	0	0
Improvement SDC Account to Construction Clearing Account	0	0	0	0	0	0
WIFIA Reserve to Construction Clearing Account	0	0	0	0	0	0
Grant Funding	0	0	0	0	0	0
Short-Term Debt	0	0	0	0	0	0
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<u>\$59,589,825</u>	<u>\$79,821,442</u>	<u>\$120,113,293</u>	<u>\$125,198,568</u>	<u>\$148,259,631</u>	<u>\$107,006,005</u>
<b>Uses of Funds</b>						
Capital Projects funded from Cash/Reserves	\$59,235,957	\$79,821,442	\$120,113,293	\$125,198,568	\$148,259,631	\$107,006,005
Projects funded from Debt Proceeds (incl fund Int.)	(0)	0	(0)	0	(0)	0
SDC-Funded Capital Projects	353,868	0	0	0	0	0
Grant Funding	0	0	0	0	0	0
Ending Construction Clearing Account Balance	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<u>\$59,589,825</u>	<u>\$79,821,442</u>	<u>\$120,113,293</u>	<u>\$125,198,568</u>	<u>\$148,259,631</u>	<u>\$107,006,005</u>
<b>Minimum Fund Balance Assumptions</b>	\$0	\$0	\$0	\$0	\$0	\$0
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Total Capital Projects & Outlays	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 16  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Construction Clearing Account

Description	FY2048 1.50%	FY2049 1.50%	FY2050 1.50%	FY2051 1.50%
Interest Rate on Fund Balance	\$0	\$0	\$0	\$0
<b>Sources of Funds</b>				
Beginning Construction Clearing Account Balance	\$83,603,584	\$77,585,657	\$130,846,344	\$76,647,515
Transfers In	(0)	0	(0)	0
Cash Investments to Construction Clearing Account	0	0	0	0
Bond Proceeds to Construction Clearing Account	0	0	0	0
Reimbursement SDC Account to Construction Clearing Account	0	0	0	0
Improvement SDC Account to Construction Clearing Account	0	0	0	0
WIFIA Reserve to Construction Clearing Account	0	0	0	0
Grant Funding	0	0	0	0
Short-Term Debt	0	0	0	0
Interest Earnings	0	0	0	0
<b>Total Sources of Funds</b>	<u>\$83,603,584</u>	<u>\$77,585,657</u>	<u>\$130,846,344</u>	<u>\$76,647,515</u>
<b>Uses of Funds</b>				
Capital Projects funded from Cash/Reserves	\$83,603,584	\$77,585,657	\$130,846,344	\$76,647,515
Projects funded from Debt Proceeds (incl fund Int.)	(0)	0	(0)	0
SDC-Funded Capital Projects	0	0	0	0
Grant Funding	0	0	0	0
Ending Construction Clearing Account Balance	0	0	0	0
<b>Total Uses of Funds</b>	<u>\$83,603,584</u>	<u>\$77,585,657</u>	<u>\$130,846,344</u>	<u>\$76,647,515</u>
<b>Minimum Fund Balance Assumptions</b>	\$0	\$0	\$0	\$0
Check Sources/Uses	OK	OK	OK	OK
Check Total Capital Projects & Outlays	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 17  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Reimbursement SDC Account

Description	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Interest Rate on Account Balance	3.00%	2.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Reimbursement SDC Account Balance	\$0	\$0	\$0	\$0	\$0	\$0
Reimbursement Fee Receipts	863,960	842,503	819,843	795,939	770,751	3,829,719
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$863,960</b>	<b>\$842,503</b>	<b>\$819,843</b>	<b>\$795,939</b>	<b>\$770,751</b>	<b>\$3,829,719</b>
<b>Uses of Funds</b>						
Transfers Out						
Reimbursement SDC Account to Construction Clearing Account	\$863,960	\$842,503	\$819,843	\$795,939	\$770,751	\$3,829,719
Ending Reimbursement SDC Account Balance	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$863,960</b>	<b>\$842,503</b>	<b>\$819,843</b>	<b>\$795,939</b>	<b>\$770,751</b>	<b>\$3,829,719</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

Table 17  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Reimbursement SDC Account

Description	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
Interest Rate on Account Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Reimbursement SDC Account Balance	\$0	\$0	\$0	\$0	\$0	\$0
Reimbursement Fee Receipts	3,627,291	3,415,234	3,193,243	2,961,008	2,718,205	2,464,506
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$3,627,291</b>	<b>\$3,415,234</b>	<b>\$3,193,243</b>	<b>\$2,961,008</b>	<b>\$2,718,205</b>	<b>\$2,464,506</b>
<b>Uses of Funds</b>						
Transfers Out						
Reimbursement SDC Account to Construction Clearing Account	\$3,627,291	\$3,415,234	\$3,193,243	\$2,961,008	\$2,718,205	\$2,464,506
Ending Reimbursement SDC Account Balance	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$3,627,291</b>	<b>\$3,415,234</b>	<b>\$3,193,243</b>	<b>\$2,961,008</b>	<b>\$2,718,205</b>	<b>\$2,464,506</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK



TVWD Forecast Model Summary

Table 17  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Reimbursement SDC Account

Description	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
Interest Rate on Account Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Sources of Funds						
Beginning Reimbursement SDC Account Balance	\$0	\$0	\$0	\$0	\$0	\$0
Reimbursement Fee Receipts	2,199,571	1,923,054	1,634,596	1,333,830	1,020,380	693,858
Interest Earnings	0	0	0	0	0	0
Total Sources of Funds	\$2,199,571	\$1,923,054	\$1,634,596	\$1,333,830	\$1,020,380	\$693,858
Uses of Funds						
Transfers Out						
Reimbursement SDC Account to Construction Clearing Account	\$2,199,571	\$1,923,054	\$1,634,596	\$1,333,830	\$1,020,380	\$693,858
Ending Reimbursement SDC Account Balance	0	0	0	0	0	0
Total Uses of Funds	\$2,199,571	\$1,923,054	\$1,634,596	\$1,333,830	\$1,020,380	\$693,858
Minimum Fund Balance Assumptions	\$0	\$0	\$0	\$0	\$0	\$0
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

Table 17  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Reimbursement SDC Account

Description	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
Interest Rate on Account Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Reimbursement SDC Account Balance	\$0	\$0	\$0	\$0	\$0	\$0
Reimbursement Fee Receipts	353,868	0	0	0	0	0
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$353,868</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Uses of Funds</b>						
Transfers Out						
Reimbursement SDC Account to Construction Clearing Account	\$353,868	\$0	\$0	\$0	\$0	\$0
Ending Reimbursement SDC Account Balance	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$353,868</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

Table 17  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Reimbursement SDC Account

Description	FY2048	FY2049	FY2050	FY2051
Interest Rate on Account Balance	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>				
Beginning Reimbursement SDC Account Balance	\$0	\$0	\$0	\$0
Reimbursement Fee Receipts	0	0	0	0
Interest Earnings	0	0	0	0
<b>Total Sources of Funds</b>	----- \$0	----- \$0	----- \$0	----- \$0
<b>Uses of Funds</b>				
Transfers Out				
Reimbursement SDC Account to Construction Clearing Account	\$0	\$0	\$0	\$0
Ending Reimbursement SDC Account Balance	0	0	0	0
<b>Total Uses of Funds</b>	----- \$0	----- \$0	----- \$0	----- \$0
<b>Minimum Fund Balance Assumptions</b>	\$0	\$0	\$0	\$0
Check Sources/Uses	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 18  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Improvement SDC Account

Description	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Interest Rate on Fund Balance	3.00%	2.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Improvement SDC Account Balance	\$0	\$0	\$0	\$0	\$0	\$2,416,519
Improvement Fee Receipts	3,645,343	3,554,810	3,459,198	3,358,339	3,252,063	0
Interest Earnings	0	0	0	0	18,124	21,880
<b>Total Sources of Funds</b>	<b>\$3,645,343</b>	<b>\$3,554,810</b>	<b>\$3,459,198</b>	<b>\$3,358,339</b>	<b>\$3,270,187</b>	<b>\$2,438,398</b>
<b>Uses of Funds</b>						
Transfers Out						
Improvement SDC Account to Construction Clearing Account	\$3,645,343	\$3,554,810	\$3,459,198	\$3,358,339	\$853,668	\$1,937,594
Ending Improvement SDC Account Balance	0	0	0	0	2,416,519	500,804
<b>Total Uses of Funds</b>	<b>\$3,645,343</b>	<b>\$3,554,810</b>	<b>\$3,459,198</b>	<b>\$3,358,339</b>	<b>\$3,270,187</b>	<b>\$2,438,398</b>
<b>Minimum Fund Balance Assumptions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

Table 18  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Improvement SDC Account

Description	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Improvement SDC Account Balance	\$500,804	\$3,784	\$29	\$0	\$0	\$0
Improvement Fee Receipts	0	0	0	0	0	0
Interest Earnings	3,784	29	0	0	0	0
Total Sources of Funds	\$504,588	\$3,813	\$29	\$0	\$0	\$0
<b>Uses of Funds</b>						
Transfers Out						
Improvement SDC Account to Construction Clearing Account	\$500,804	\$3,784	\$29	\$0	\$0	\$0
Ending Improvement SDC Account Balance	3,784	29	0	0	0	0
Total Uses of Funds	\$504,588	\$3,813	\$29	\$0	\$0	\$0
Minimum Fund Balance Assumptions	\$0	\$0	\$0	\$0	\$0	\$0
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

Table 18  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Improvement SDC Account

Description	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Improvement SDC Account Balance	\$0	\$0	\$0	\$0	\$0	\$0
Improvement Fee Receipts	0	0	0	0	0	0
Interest Earnings	0	0	0	0	0	0
Total Sources of Funds	----- \$0	----- \$0	----- \$0	----- \$0	----- \$0	----- \$0
<b>Uses of Funds</b>						
<b>Transfers Out</b>						
Improvement SDC Account to Construction Clearing Account	\$0	\$0	\$0	\$0	\$0	\$0
Ending Improvement SDC Account Balance	0	0	0	0	0	0
Total Uses of Funds	----- \$0	----- \$0	----- \$0	----- \$0	----- \$0	----- \$0
<b>Minimum Fund Balance Assumptions</b>						
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

Table 18  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Improvement SDC Account

Description	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning Improvement SDC Account Balance	\$0	\$0	\$0	\$0	\$0	\$0
Improvement Fee Receipts	0	0	0	0	0	0
Interest Earnings	0	0	0	0	0	0
Total Sources of Funds	----- \$0	----- \$0	----- \$0	----- \$0	----- \$0	----- \$0
<b>Uses of Funds</b>						
<b>Transfers Out</b>						
Improvement SDC Account to Construction Clearing Account	\$0	\$0	\$0	\$0	\$0	\$0
Ending Improvement SDC Account Balance	0	0	0	0	0	0
Total Uses of Funds	----- \$0	----- \$0	----- \$0	----- \$0	----- \$0	----- \$0
<b>Minimum Fund Balance Assumptions</b>						
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

Table 18  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – Improvement SDC Account

Description	FY2048	FY2049	FY2050	FY2051
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>				
Beginning Improvement SDC Account Balance	\$0	\$0	\$0	\$0
Improvement Fee Receipts	0	0	0	0
Interest Earnings	0	0	0	0
Total Sources of Funds	----- \$0	----- \$0	----- \$0	----- \$0
<b>Uses of Funds</b>				
Transfers Out				
Improvement SDC Account to Construction Clearing Account	\$0	\$0	\$0	\$0
Ending Improvement SDC Account Balance	0	0	0	0
Total Uses of Funds	----- \$0	----- \$0	----- \$0	----- \$0
<b>Minimum Fund Balance Assumptions</b>				
Check Sources/Uses	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK



TVWD Forecast Model Summary

Table 19  
 Tuolatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – WIFIA Reserve

Description	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Interest Rate on Fund Balance	3.00%	2.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning WIFIA Reserve Balance	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Proceeds	144,106,518	0	0	0	0	0
Transfers In						
Cash Investments to WIFIA Reserve	\$0	\$0	\$0	\$0	\$7,687,257	\$15,374,514
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$144,106,518</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,687,257</b>	<b>\$15,374,514</b>
<b>Uses of Funds</b>						
WIFIA Issuance Costs						
WIFIA Interest-only Payments	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Loan Repayments	0	0	0	0	7,687,257	15,374,514
Transfers Out						
WIFIA Reserve to Cash Investments	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Reserve to Construction Clearing Account	144,106,518	0	0	0	0	0
Ending WIFIA Reserve Balance	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$144,106,518</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,687,257</b>	<b>\$15,374,514</b>
Minimum Fund Balance Assumptions	\$0	\$0	\$0	\$0	\$0	\$0
Ending Fund Balance Factor						
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 19  
 Tuatatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – WIFIA Reserve

Description	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning WIFIA Reserve Balance	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Proceeds	0	0	0	0	0	0
Transfers In						
Cash Investments to WIFIA Reserve	\$15,374,514	\$15,374,514	\$15,374,514	\$15,374,514	\$15,374,514	\$15,374,514
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>
<b>Uses of Funds</b>						
WIFIA Issuance Costs						
WIFIA Interest-only Payments	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Loan Repayments	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514
Transfers Out						
WIFIA Reserve to Cash Investments	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Reserve to Construction Clearing Account	0	0	0	0	0	0
Ending WIFIA Reserve Balance	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>
Minimum Fund Balance Assumptions	\$0	\$0	\$0	\$0	\$0	\$0
Ending Fund Balance Factor						
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 19  
 Tuatatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – WIFIA Reserve

Description	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning WIFIA Reserve Balance	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Proceeds	0	0	0	0	0	0
Transfers In						
Cash Investments to WIFIA Reserve	\$15,374,514	\$15,374,514	\$15,374,514	\$15,374,514	\$15,374,514	\$15,374,514
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>
<b>Uses of Funds</b>						
WIFIA Issuance Costs						
WIFIA Interest-only Payments	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Loan Repayments	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514
Transfers Out						
WIFIA Reserve to Cash Investments	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Reserve to Construction Clearing Account	0	0	0	0	0	0
Ending WIFIA Reserve Balance	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>
Minimum Fund Balance Assumptions	\$0	\$0	\$0	\$0	\$0	\$0
Ending Fund Balance Factor						
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 19  
 Tuatatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – WIFIA Reserve

Description	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
Interest Rate on Fund Balance	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<b>Sources of Funds</b>						
Beginning WIFIA Reserve Balance	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Proceeds	0	0	0	0	0	0
Transfers In						
Cash Investments to WIFIA Reserve	\$15,374,514	\$15,374,514	\$15,374,514	\$15,374,514	\$15,374,514	\$15,374,514
Interest Earnings	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>
<b>Uses of Funds</b>						
WIFIA Issuance Costs						
WIFIA Interest-only Payments	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Loan Repayments	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514	15,374,514
Transfers Out						
WIFIA Reserve to Cash Investments	\$0	\$0	\$0	\$0	\$0	\$0
WIFIA Reserve to Construction Clearing Account	0	0	0	0	0	0
Ending WIFIA Reserve Balance	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>
Minimum Fund Balance Assumptions	\$0	\$0	\$0	\$0	\$0	\$0
Ending Fund Balance Factor						
Check Sources/Uses	OK	OK	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 19  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Fund Summary – WIFIA Reserve

Description	FY2048 1.50%	FY2049 1.50%	FY2050 1.50%	FY2051 1.50%
<b>Interest Rate on Fund Balance</b>				
Sources of Funds				
Beginning WIFIA Reserve Balance	\$0	\$0	\$0	\$0
WIFIA Proceeds	0	0	0	0
Transfers In				
Cash Investments to WIFIA Reserve	\$15,374,514	\$15,374,514	\$15,374,514	\$15,374,514
Interest Earnings	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>
Uses of Funds				
WIFIA Issuance Costs				
WIFIA Interest-only Payments	\$0	\$0	\$0	\$0
WIFIA Loan Repayments	15,374,514	15,374,514	15,374,514	15,374,514
Transfers Out				
WIFIA Reserve to Cash Investments	\$0	\$0	\$0	\$0
WIFIA Reserve to Construction Clearing Account	0	0	0	0
Ending WIFIA Reserve Balance	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>	<b>\$15,374,514</b>
Minimum Fund Balance Assumptions	\$0	\$0	\$0	\$0
Ending Fund Balance Factor				
Check Sources/Uses	OK	OK	OK	OK
Check Ending Fund Balance	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 20  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Sources and Uses Summary with Changes in Reserves by Fund

	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
<b>Sources of Funds</b>						
Water Sales	\$97,731,833	\$117,431,633	\$129,970,703	\$134,719,671	\$139,627,390	\$144,670,153
SDCs	4,509,302	4,397,313	4,279,041	4,154,278	4,022,814	3,829,719
Other Revenue (incl. Investment Maturities)	124,207,696	16,095,030	6,963,293	7,233,017	6,212,714	6,809,298
WIFIA Proceeds	144,106,518	0	0	0	0	0
Debt Proceeds	0	130,000,000	0	0	0	0
Grant Funding	0	7,561,607	4,938,393	600,000	600,000	600,000
Fund Balance						
Cash Investments	6,316,308	0	0	0	0	0
Bond Proceeds	78,187,819	0	0	3,485	0	0
Rev. Bond Debt Service	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	0	1,915,714
<b>Total Sources of Funds</b>	<b>\$455,059,475</b>	<b>\$275,485,582</b>	<b>\$146,151,430</b>	<b>\$146,710,452</b>	<b>\$150,462,918</b>	<b>\$157,824,884</b>
<b>Uses of Funds</b>						
Operating Exp.	\$38,570,156	\$38,106,605	\$39,858,467	\$41,524,269	\$45,644,793	\$47,682,702
Purchased Water	14,964,100	15,686,600	15,192,598	13,824,854	14,536,117	15,277,514
Capital Outlay	397,874,857	193,941,890	76,522,231	47,187,321	31,542,128	41,851,511
Debt Service	3,650,362	7,215,250	10,790,250	10,790,250	21,977,184	29,663,191
Building Reserves						
Cash Investments	0	11,310,476	3,787,833	33,383,758	34,346,177	23,349,966
Bond Proceeds	0	85	52	0	0	0
Rev. Bond Debt Service	0	9,224,677	0	0	0	0
Improvement SDC Account	0	0	0	0	2,416,519	0
<b>Total Uses of Funds</b>	<b>\$455,059,475</b>	<b>\$275,485,582</b>	<b>\$146,151,430</b>	<b>\$146,710,452</b>	<b>\$150,462,918</b>	<b>\$157,824,884</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 20  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Sources and Uses Summary with Changes in Reserves by Fund

	FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
<b>Sources of Funds</b>						
Water Sales	\$149,820,274	\$155,076,317	\$160,436,637	\$165,899,366	\$171,462,416	\$177,123,469
SDCs	3,627,291	3,415,234	3,193,243	2,961,008	2,718,205	2,464,506
Other Revenue (incl. Investment Maturities)	7,270,524	7,810,020	8,098,292	7,992,761	7,976,154	8,154,907
WIFIA Proceeds	0	0	0	0	0	0
Debt Proceeds	0	0	0	0	0	0
Grant Funding	0	0	0	0	0	0
Fund Balance						
Cash Investments	0	0	6,786,017	31,242,974	0	5,834,256
Bond Proceeds	0	0	0	0	0	0
Rev. Bond Debt Service	0	0	0	0	0	0
Improvement SDC Account	497,020	3,756	28	0	0	0
<b>Total Sources of Funds</b>	<b>\$161,215,108</b>	<b>\$166,305,327</b>	<b>\$178,514,218</b>	<b>\$208,096,108</b>	<b>\$182,156,775</b>	<b>\$193,577,138</b>
<b>Uses of Funds</b>						
Operating Exp.	\$49,820,071	\$52,053,697	\$54,388,149	\$56,827,272	\$59,375,565	\$62,039,040
Purchased Water	16,043,447	16,833,919	17,648,869	18,488,163	19,351,595	20,238,873
Capital Outlay	37,401,041	45,945,663	76,814,760	103,119,732	69,820,994	81,634,534
Debt Service	29,663,441	29,664,941	29,662,441	29,660,941	29,665,191	29,664,691
Building Reserves						
Cash Investments	28,287,108	21,807,108	0	0	3,943,430	0
Bond Proceeds	0	0	0	0	0	0
Rev. Bond Debt Service	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$161,215,108</b>	<b>\$166,305,327</b>	<b>\$178,514,218</b>	<b>\$208,096,108</b>	<b>\$182,156,775</b>	<b>\$193,577,138</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK

TVWD Forecast Model Summary

Table 20  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Sources and Uses Summary with Changes in Reserves by Fund

	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
<b>Sources of Funds</b>						
Water Sales	\$182,879,982	\$188,823,581	\$194,960,347	\$201,296,559	\$207,838,697	\$214,593,455
SDCs	2,199,571	1,923,054	1,634,596	1,333,830	1,020,380	693,858
Other Revenue (incl. Investment Maturities)	8,079,807	8,188,371	8,736,536	9,170,769	9,413,986	9,767,924
WIFIA Proceeds	0	0	0	0	0	0
Debt Proceeds	0	0	0	0	0	0
Grant Funding	0	0	0	0	0	0
Fund Balance						
Cash Investments	31,068,789	0	0	0	0	0
Bond Proceeds	0	0	0	0	0	0
Rev. Bond Debt Service	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$224,228,149</b>	<b>\$198,935,006</b>	<b>\$205,331,479</b>	<b>\$211,801,158</b>	<b>\$218,273,063</b>	<b>\$225,055,237</b>
<b>Uses of Funds</b>						
Operating Exp.	\$64,821,836	\$67,729,411	\$70,768,171	\$73,943,176	\$77,260,444	\$80,727,270
Purchased Water	21,149,622	22,101,355	23,095,916	24,135,232	25,221,317	26,356,277
Capital Outlay	108,592,250	61,400,971	55,528,713	82,503,120	85,999,711	73,326,390
Debt Service	29,664,441	29,664,191	29,663,691	29,662,691	29,665,941	29,662,941
Building Reserves						
Cash Investments	0	18,039,079	26,274,988	1,556,939	125,650	14,982,360
Bond Proceeds	0	0	0	0	0	0
Rev. Bond Debt Service	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$224,228,149</b>	<b>\$198,935,006</b>	<b>\$205,331,479</b>	<b>\$211,801,158</b>	<b>\$218,273,063</b>	<b>\$225,055,237</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK



TVWD Forecast Model Summary

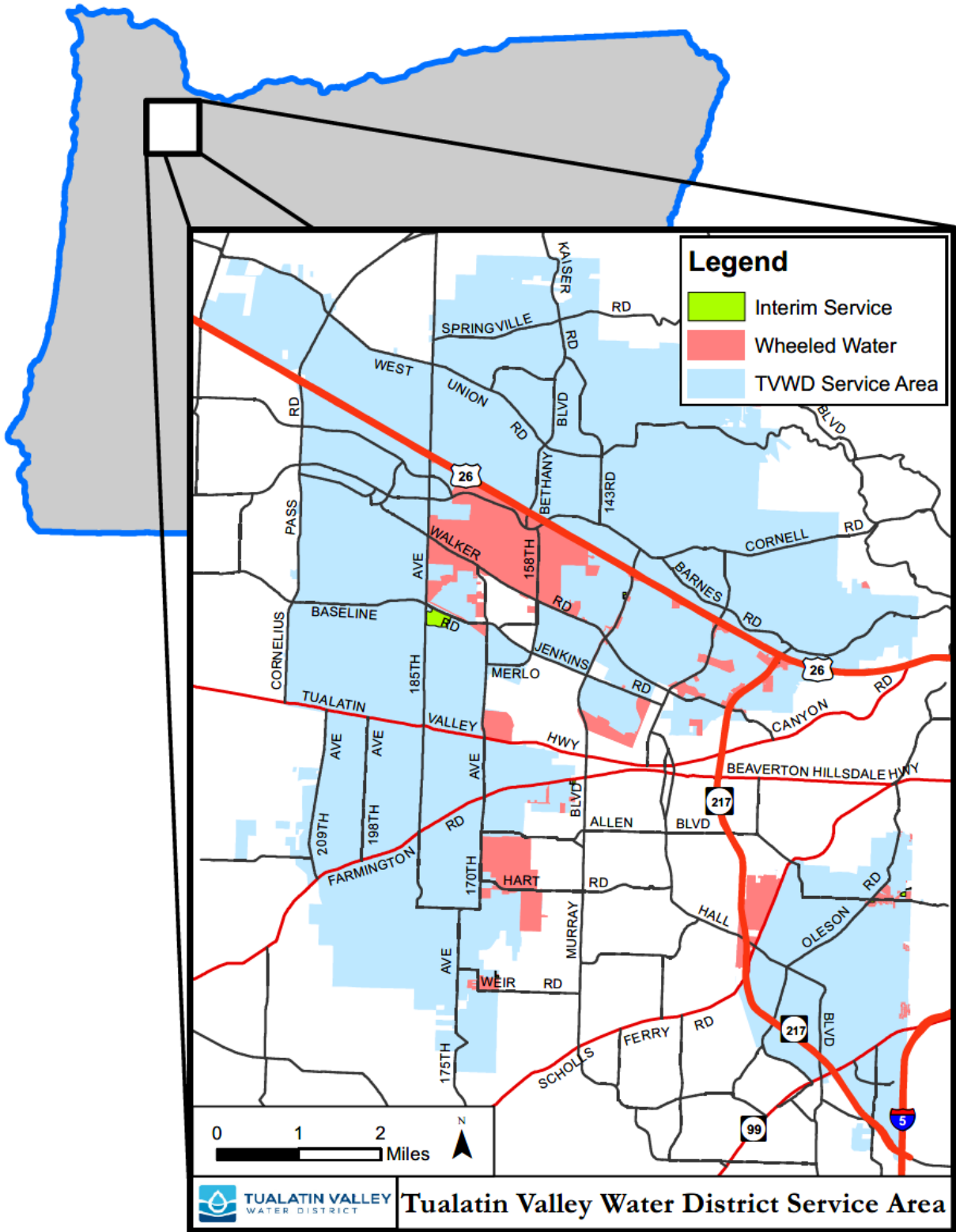
Table 20  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Sources and Uses Summary with Changes in Reserves by Fund

	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
<b>Sources of Funds</b>						
Water Sales	\$221,567,742	\$228,768,693	\$236,203,676	\$243,880,295	\$251,806,405	\$259,990,113
SDCs	353,868	0	0	0	0	0
Other Revenue (incl. Investment Maturities)	10,351,560	10,924,267	11,088,457	10,951,057	10,641,830	10,509,479
WIFIA Proceeds	0	0	0	0	0	0
Debt Proceeds	0	0	0	0	0	0
Grant Funding	0	0	0	0	0	0
Fund Balance						
Cash Investments	0	0	25,858,962	28,944,816	50,175,514	6,923,798
Bond Proceeds	0	0	0	0	0	0
Rev. Bond Debt Service	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$232,273,169</b>	<b>\$239,692,960</b>	<b>\$273,151,095</b>	<b>\$283,776,169</b>	<b>\$312,623,749</b>	<b>\$277,423,391</b>
<b>Uses of Funds</b>						
Operating Exp.	\$84,349,541	\$88,135,138	\$92,090,364	\$96,222,940	\$100,541,636	\$105,053,884
Purchased Water	27,542,309	28,781,713	30,076,890	31,430,350	32,844,716	34,322,728
Capital Outlay	60,694,064	80,975,372	121,319,150	126,458,688	149,576,457	108,382,088
Debt Service	29,663,691	29,662,691	29,664,691	29,664,191	29,660,941	29,664,691
Building Reserves						
Cash Investments	30,023,564	12,138,046	0	0	0	0
Bond Proceeds	0	0	0	0	0	0
Rev. Bond Debt Service	0	0	0	0	0	0
Improvement SDC Account	0	0	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$232,273,169</b>	<b>\$239,692,960</b>	<b>\$273,151,095</b>	<b>\$283,776,169</b>	<b>\$312,623,749</b>	<b>\$277,423,391</b>
Check Sources/Uses	OK	OK	OK	OK	OK	OK

Table 20  
 Tualatin Valley Water District  
 Financial Strategy Summary  
 Sources and Uses Summary with Changes in Reserves by Fund

	FY2048	FY2049	FY2050	FY2051
<b>Sources of Funds</b>				
Water Sales	\$268,439,792	\$277,164,085	\$286,171,918	\$295,472,505
SDCs	0	0	0	0
Other Revenue (incl. Investment Maturities)	10,907,452	11,578,122	11,941,236	12,365,928
WIFIA Proceeds	0	0	0	0
Debt Proceeds	0	0	0	0
Grant Funding	0	0	0	0
Fund Balance				
Cash Investments	0	0	22,965,379	0
Bond Proceeds	0	0	0	0
Rev. Bond Debt Service	0	0	0	0
Improvement SDC Account	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$279,347,243</b>	<b>\$288,742,207</b>	<b>\$321,078,533</b>	<b>\$307,838,433</b>
<b>Uses of Funds</b>				
Operating Exp.	\$109,769,482	\$114,696,329	\$119,831,724	\$125,197,902
Purchased Water	35,867,251	37,481,277	39,167,935	40,930,492
Capital Outlay	85,041,591	79,088,374	132,416,683	78,288,520
Debt Service	29,664,691	29,665,691	29,662,191	29,663,941
Building Reserves				
Cash Investments	19,004,229	27,810,535	0	33,757,579
Bond Proceeds	0	0	0	0
Rev. Bond Debt Service	0	0	0	0
Improvement SDC Account	0	0	0	0
<b>Total Uses of Funds</b>	<b>\$279,347,243</b>	<b>\$288,742,207</b>	<b>\$321,078,533</b>	<b>\$307,838,433</b>
Check Sources/Uses	OK	OK	OK	OK

J. Map – Tualatin Valley Water District (Washington County, Oregon)





**TUALATIN VALLEY**  
WATER DISTRICT

1850 SW 170th Ave., Beaverton, OR 97003

Phone: (503) 848-3000

[www.TVWD.org](http://www.TVWD.org)



# TUALATIN VALLEY

## WATER DISTRICT

**Date:** July 19, 2023

**To:** Board of Commissioners

**From:** Paul L. Matthews, Chief Financial Officer

**Subject:** Adopt a Resolution Establishing a Process for Proposed Adjustments to Water Rates for the 2023-25 Biennium

### **Requested Board Action:**

Consider adopting Resolution 12-23, establishing a process for proposed adjustments to water rates for the 2023-25 biennium.

### **Key Concepts:**

- At its March 15, 2023 regular meeting, the Board adopted Resolution 04-23 which approved the District's 2023-25 financial strategy.
- The 2023-25 financial strategy, which is consistent with the District's Adopted 2023-25 Biennial Budget, anticipates increases in water rates to fund the District's capital and operating expenditures.
- Historically, the Board has directed staff to engage in a public outreach process to provide customers with an opportunity to learn more about the District's rate proposals and provide public comment for the Board's consideration.
- Oregon law requires the District to notify customers when the District considers adjusting water rates. The notification requires establishing a time and place for the public hearing. The proposed resolution provides management direction to notify customers consistent with Oregon law and undertake an appropriate customer outreach plan.

### **Background:**

At its March 15, 2023 regular meeting, the Board of Commissioners adopted Resolution 04-23, approving the District's 2023-25 financial strategy. The approved financial strategy includes proposed increases in water rates to generate the planned revenue for the District. Based on the assumptions included in the approved financial strategy, management will prepare proposed increases in the District's water rates.

Staff has prepared a proposal for the Board's consideration to hold a public hearing at its August 16, 2023, regular meeting to adjust water rates effective November 1, 2023 and November 1, 2024. The rate increases are consistent with the District's adopted biennial budget and approved financial strategy.

Staff also proposes to conduct an extensive customer outreach effort for the rate adjustments. This outreach plan includes:

1. Virtual Open House on Wednesday, August 2, 2022, using the *Talkin' Water* forum from noon until 1:30 pm.
2. In-Person Open House on Saturday, August 5, 2023, at the District's Headquarters, from 9:00 am until 10:30 am.

3. Virtual Open House on Thursday, August 17, 2023, using the *Talkin' Water* forum from 6:00 pm until 7:30 pm.
4. Public Hearing at the Board's regular meeting on August 16, 2023.
5. Consideration of rate adoption at the Board's regular meeting on September 20, 2023.

Staff also proposes the Board direct management to include public comment received on or after July 20, 2023, but before 4:00 pm on August 24, 2023, in the public record for the rate process. Staff proposes to accumulate the comments received from the public and provide them to the Board members on August 31, 2023. Staff will present information on those comments to the Board at the Board's September 20, 2023, regular meeting.

As a separate and earlier agenda item at the July 19, 2023, regular Board meeting, staff will present a proposed Financial Plan for the Board's approval. As in prior years, the Financial Plan presents more details on the District's finances to include the use of long-term debt, reserves, and pay-as-you-go (Paygo) to fund the District's capital and operating needs. That presentation will include a review of the District's revenue needs based on the approved financial strategy, Adopted 2023-25 Biennial Budget, and the proposed Financial Plan.

For this agenda item, staff will present:

- Proposed increases in water rates for November 1, 2023 and November 1, 2024.
- Overview of the proposed customer outreach efforts planned for the rate adoption.

The proposed rate process includes holding a public hearing on August 16, 2023, and including the public comment received between July 20, 2023, and August 24, 2023, in the public record. Because the determination of the comment period for the public record is a Board prerogative, management recommends the Board adopt the public hearing and public comment process by resolution.

**Budget Impact:**

There is no direct budget impact for this agenda item. The preparation of this information is within the District's Adopted 2023-25 Biennial Budget. However, the information presented includes a proposal to increase water rates for the current biennium. These rate adjustments will affect the District's water rate revenue.

**Staff Contact Information:**

Paul L. Matthews; Chief Financial Officer; 503-848-3017; paul.matthews@tvwd.org  
 Joe Healy; Senior Management Analyst; 503-848-3085; joe.healy@tvwd.org

**Attachments:**

Proposed Resolution 12-23

**Leadership Team Initials:**

Chief Executive Officer	TRH	Customer Service Manager	AC
Chief Operating Officer	N/A	IT Services Director	TB
Chief Financial Officer	Pon	Human Resources Director	N/A
General Counsel	CB	Water Supply Program Director	N/A



**TUALATIN VALLEY**  
WATER DISTRICT

## RESOLUTION NO. 12-23

A RESOLUTION ESTABLISHING A PROCESS FOR PROPOSED ADJUSTMENTS TO WATER RATES FOR THE 2023-25 BIENNIUM.

WHEREAS, the Board of Commissioners (Board) of the Tualatin Valley Water District (District) adopted Resolution 04-23 on March 15, 2023 approving the 2023-25 biennium strategic initiatives and financial strategy; and

WHEREAS, the District's approved financial strategy includes increases in water rates to fund the District's capital investment and operating expenditures; and

WHEREAS, to implement the increases in water rates included in the approved financial strategy, the Board desires to provide direction to management to establish an appropriate public process.

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

Section 1: Management is directed to schedule a public hearing for August 16, 2023 during the Board's regular meeting to consider changes in the District's water rates.

Section 2: Management is authorized to undertake those activities consistent with Oregon law to notify the public of the public hearing.

Section 3: Management is directed to provide an opportunity for the public to learn about the proposal to change the District's water rates in three events held in August 2023.

Section 4: Public comment received by the District on, or after July 20, 2023, and before 4:00 pm on August 24, 2023, shall be included in the public record for consideration by the Board of Commissioners in its deliberations.

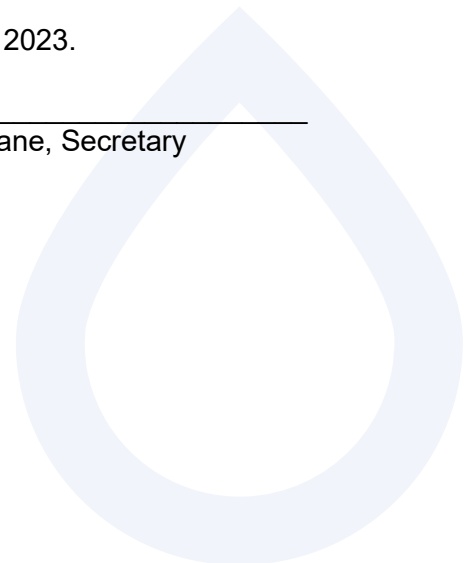
Approved and adopted at a regular meeting held on the 19<sup>th</sup> day of July 2023.

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Todd Sanders, President

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Jim Doane, Secretary





# TUALATIN VALLEY

## WATER DISTRICT

**Date:** July 19, 2023  
**To:** Board of Commissioners  
**From:** Clark Balfour, General Counsel  
**Subject:** City of Beaverton Short Term Emergency Water Supply Agreement

### **Requested Board Action:**

Adopt Resolution 13-23 approving the Intergovernmental Agreement Between Tualatin Valley Water District And The City of Beaverton For Short Term Emergency Water Use.

### **Key Concepts:**

- Washington County is poised to commence construction of roadway improvements at SW Division Street and SW 149<sup>th</sup> Avenue (County Project) adjacent to the City's 36-inch transmission main (City Waterline).
- The Waterline is the primary method through which the City receives most of its water from the Joint Water Commission (JWC).
- If the Waterline is damaged during construction and cannot deliver water, the City would like to use interconnections with TVWD to supply up to 5 million gallons per day for a period not to exceed 6 months.

### **Background:**

Washington County is ready to begin construction of a roadway project at SW Division Street and SW 149th Avenue. The County Project is near the 36-inch City Waterline which is the primary feed for the City from the JWC water source. The City Waterline is the extension of the JWC South Transmission Line past the takeoff points for TVWD and Hillsboro.

Protective measures for the City Waterline are in place under the County Project construction plans but there is a chance that damage to the City Waterline could occur resulting in a total or partial reduction in water supply for a short period of time.

District staff and City staff have discussed how TVWD could supply the City up to 5 million gallons per day through various connection points between the systems. The Agreement provides for provision of emergency water for a period of up to six months if emergency water is necessary. Any extension requires mutual consent. The Agreement is structured like our other emergency connection agreements including provisions for provision of water and wheeling charges.

Staff recommends approval.

### **Budget Impact:**

None

### **Staff Contact Information:**

Pete Boone, PE; Chief Operating Officer; 503-848-3054; [peter.boone@tvwd.org](mailto:peter.boone@tvwd.org)

Clark Balfour; General Counsel; 503-848-3061; [clark.balfour@tvwd.org](mailto:clark.balfour@tvwd.org)





**Attachments:**

Proposed resolution 13-23

**Leadership Team Initials:**

Chief Executive Officer	GRH	Customer Service Manager	N/A
Chief Operating Officer	N/A	IT Services Director	N/A
Chief Financial Officer	N/A	Human Resources Director	N/A
General Counsel	CS	Water Supply Program Director	N/A





**TUALATIN VALLEY**  
WATER DISTRICT

## RESOLUTION NO. 13-23

A RESOLUTION APPROVING THE INTERGOVERNMENTAL AGREEMENT BETWEEN TUALATIN VALLEY WATER DISTRICT AND THE CITY OF BEAVERTON FOR SHORT TERM EMERGENCY WATER USE.

WHEREAS, the City of Beaverton (Beaverton) and Tualatin Valley Water District (District) serve their respective water systems from water source treatment, transmission water lines, reservoirs and other water system facilities; and

WHEREAS, Washington County is ready to commence a roadway improvement project near SW Division Street and SW 149th Avenue that is near to a 36-inch diameter Beaverton waterline, such waterline providing the main source of water supply for the City from the Joint Water Commission; and

WHEREAS, while there are provisions in the Washington County construction project documents that require the contractor to protect the Beaverton waterline, Beaverton and District believe it is prudent to have an agreement for short term emergency water supply by District to Beaverton during construction; and

WHEREAS, there are various points of interconnection of the water systems that can provide for up to five million gallons per day of short term emergency water supply as set forth in the Intergovernmental Agreement Between Tualatin Valley Water District And The City of Beaverton For Short Term Emergency Water Use, attached hereto as Exhibit 1 and incorporated by reference (Agreement); 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 Short Term Emergency Water Use, 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 19<sup>th</sup> day of July 2023.

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Todd Sanders, President

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Jim Doane, Secretary



## Exhibit 1

### INTERGOVERNMENTAL AGREEMENT BETWEEN TUALATIN VALLEY WATER DISTRICT AND THE CITY OF BEAVERTON SHORT TERM EMERGENCY WATER USE

#### **PARTIES:**

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

CITY: City of Beaverton (City), an Oregon municipal corporation.

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

#### **BACKGROUND:**

- A. Each Party owns, operates, and maintains potable municipal and industrial water system facilities to serve residential, commercial, and industrial customers within their respective service territories.
- B. The Parties are members (and partial owners) of the Joint Water Commission (JWC), an intergovernmental entity formed under ORS Chapter 190. The JWC provides potable water from the JWC water treatment plant, reservoirs, pumping stations, and transmission facilities to multiple connection points within the distribution systems of the Parties.
- C. The Parties currently have a number of intergovernmental agreements (IGA) governing how the Parties work together to provide potable water in the region.
- D. Specifically, on February 23, 2018, the Parties entered into an “Intergovernmental Agreement Between City of Beaverton and Tualatin Valley Water District Relating to the Provision of Domestic Water” (2018 IGA) which includes a water wheeling provision.
- E. The Parties executed another IGA in July 2020 (“Intergovernmental Agreement Between Tualatin Valley Water District and the City of Beaverton for Emergency Water Use”) that provides for a permanent interconnection facility located at SW Schendel Avenue and Walker Road.
- F. Most recently in May 2022, the Parties entered into an IGA for a Water System Interconnection to be located at approximately 18403 SW Kemmer Road to mutually fund and build an interconnection between the Parties’ potable water systems for use by both Parties for emergency water supply and temporary regular water supply.
- G. 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.
- H. Washington County Land Use and Transportation (County) is constructing a public improvement project (Project) during the summer of 2023 on SW Division Road near SW 149th Avenue that will require work in close proximity to the City’s 36” diameter main supply pipeline (36” Line).
- I. If the City’s 36” Line is damaged during the construction, it would require the city to shut-off the water supply to the 36” line.
- J. TVWD owns and maintains water system facilities in and around SW Division Road near SW 149th Avenue.
- K. The Parties believe that the TVWD water system could provide approximately five million gallons per day of emergency water supply for domestic, commercial and fire protection uses through existing facilities that are isolated and separated by valves, flow meters, or both.
- L. The City is requesting this short term IGA for temporary emergency water supply from TVWD to the City in the event of an emergency during the County’s construction project.

M. The City will reimburse TVWD for emergency water use based on the wheeled water concept in the 2018 IGA and the concept and working procedures used for JWC wheeled water.

**THE PARTIES AGREE AS FOLLOWS:**

1. **Term.** The term of this Agreement shall be for the period commencing on July 1, 2023, and ending on December 31, 2023, unless the parties mutually agree to extend for an additional term. This Agreement may be renewed for additional 6-month periods upon written agreement of the Parties. Any renewal or extension may be executed by the Parties' designated representatives.
2. **Definitions.** In addition to the words and phrases defined in this Intergovernmental Agreement between Tualatin Valley Water District and the City of Beaverton for Short term Emergency Water Use (Agreement), the following words and phrases shall have the meaning given in these definitions when capitalized:
  - 2.1 **Emergency:** A sudden, unplanned occurrence resulting from the County's Project 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, warm or freezing weather, or increased demand due to service area growth.
  - 2.2 **Emergency Connections:** Various connections between the water systems of the Parties, such as the connection located at SW Walker Road and SW Schendel Avenue, that may be used to provide emergency water supply or fire flow supply in an emergency. Emergency Connections consist of water lines constructed over easements, public right of way, or land owned by the parties, as well as meters, valves, assemblies and appurtenances, vaults, cross connection control devices, as well as components of a Supervisory Control and Data Acquisition system (SCADA) that allow monitoring of the flow of water between the Parties respective water systems. Each Party will appoint a representative to review the connection points and determine the best method of water delivery. The City Manager and TVWD Chief Executive Officer are authorized to make such water delivery service decisions as necessary under the emergency circumstances to perform this agreement.
3. **Temporary Emergency Water Service.**
  - 3.1. **Provision of Water through Emergency Connections.** Emergency Connections shall be available and operable on demand at any time with notice from City to TVWD, as reasonable under the circumstances, for the City's Emergency purposes. The Parties agree that TVWD will not be liable for non-delivery of water if it is unavailable because of TVWD demands or system limitations. Pursuant to Section 7, City will indemnify TVWD from any third-party claims arising out of failure to deliver water. If TVWD is unable to supply water to the City, TVWD shall notify the City as soon as reasonably possible.
  - 3.2. **Use of Emergency Connection.** At all times, use of Emergency Connections shall be only for an Emergency. Notice from City to TVWD shall be reasonable notice under the circumstances.
4. **Rates, Charges, and Fees.** Water provided through the Emergency Connection shall be billed at the wheeling rate established according to Exhibit F, "Wheeling Service Rate Methodology" in the 2018 IGA. Where available, the City shall be charged for the actual flow through the master meters at the Emergency Connections. If master meters are unavailable, the Parties agree to work cooperatively to estimate the quantity of water delivered by TVWD to City. From the effective date of this Agreement until it terminates, the charges for the Emergency Connection will be assessed in accordance with the current wheeling charges in the 2018 IGA. The Parties agree to work cooperatively with the JWC to determine and allocate each Party's JWC water that may pass through the TVWD system to the City via the emergency connections.

TVWD will generally invoice the City within 30 days for all rates, charges and fees incurred by the City for water delivered through the Emergency Connection. Invoices shall be paid within 30 days of receipt. Late payments are subject to interest at the default rate and additional charges as provided in TVWD's published rate schedules. Failure to pay within 30 days of invoice shall result in termination of service following the procedures of Sections 9 and 11 below.

5. **Detrimental Fiscal and Operation Impacts to TVWD.** The City agrees to indemnify and hold harmless TVWD from fiscal or operational impacts that result from this Agreement. By way of illustration, if TVWD's peaking factor under its contract with the City of Portland or any other provision of that contract is affected by this Agreement, or if TVWD has adverse operational impacts as a result of this Agreement, the City shall compensate and hold TVWD harmless. The City agrees to negotiate modifications to this Agreement as necessary to prevent detrimental impacts to TVWD's system resulting from this Agreement.
6. **Water Quality.** Water supplied by TVWD may come from various sources as determined by TVWD and shall be consistent in quality with water supplied to TVWD customers in compliance with applicable provisions of state and federal law. TVWD may further treat the water from these sources to maintain chlorine residuals and fluoride concentrations in keeping with policies and practices established by TVWD. If TVWD's water does not meet applicable water quality standards, then TVWD shall immediately notify the City.
7. **Indemnity.** To the full extent permitted by law, the City agrees to indemnify, hold harmless and defend TVWD, its Board of Commissioners, 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 City, its elected officials, officers, agents, employees or anyone over whom the City has direction or control, except to the extent of TVWD's negligence, if any.

To the full extent permitted by law, except as provided by this Agreement, TVWD agrees to indemnify, hold harmless and defend the City, its elected officials, 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 TVWD, its Board of Commissioners, officers, agents, employees or anyone over whom TVWD has direction or control, except to the extent of the City's negligence, if any.

8. **Insurance.** Independent of the indemnity obligation in Section 7, the Parties shall maintain not less than \$5,000,000 in liability, casualty and property insurance coverages and appropriate Workers Compensation coverage.
9. **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 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.
  - 9.1. **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 by the City Manager and the TVWD Chief Executive Officer, it shall be

referred to mediation.

9.2. **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.

9.3. **Remedies.** The Parties agree that because this Agreement concerns potable water system infrastructure, equitable remedies such as injunction or specific performance may be sought.

10. **Termination.** This Agreement may be terminated by any Party upon six months' notice to the other, unless the Parties mutually agree to a different date in writing.

11. **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:

Chief Executive Officer	Mayor
Tualatin Valley Water District	City of Beaverton
1850 SW 170 <sup>th</sup> Avenue	P.O. Box 4755
Beaverton, OR 97003	Beaverton, OR 97076

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

13. **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.

14. **Governing Law; 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.

15. **Counterparts.** This Agreement may be signed in two or more counterparts, each of which shall be deemed as an original and which, when taken together, shall constitute one and the same Agreement.

16. **Third-Party Beneficiary.** The Parties agree that the provisions of this Agreement are for the exclusive benefit of the Parties and not for the benefit of any other person or entity as third-party beneficiaries. 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.

**THE PARTIES EXECUTED** this Agreement on the dates written below.

**CITY**

**TVWD**

\_\_\_\_\_  
Lacey Beaty, Mayor

\_\_\_\_\_  
Tom Hickmann, CEO

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Approved as to form:

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City Attorney's Office

Approved as to form:

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Clark Balfour, District Counsel





# TUALATIN VALLEY

WATER DISTRICT

**Date:** July 19, 2023  
**To:** Board of Commissioners  
**From:** Tom Hickmann, Chief Executive Officer  
**Subject:** Board Officer and Committee Appointments

## **Requested Board Action:**

Consider approving appointments of Board officers and internal and external committee assignments for the 2023-24 fiscal year.

## **Key Concepts:**

- The Board annually approves officer appointments as well as appointments to internal and external committees.
- Board officer appointments were briefly discussed during the June 21 regular meeting. During that meeting, Commissioners Doane and Duggan declined serving as Vice President for 2023-24 and Commissioner Duggan expressed interest in continuing his service on the Willamette Water Supply System Commission Board.
- It was agreed that the Board would discuss appointments further during the July 19 regular meeting.

## **Background:**

Internal and external committee appointments are made by the Board President with approval by the full Board per Board Policy Chapter 3, Subsection 1(b).

Officers: The officers of the Board shall consist of President, Vice President, Treasurer, Secretary and Acting Secretary. Terms of office are for one year, and no member may serve more than three consecutive terms as President. Commissioner Sanders has served one term as President and would like to continue to serve.

The duties of the President include presiding at meetings (with the right to make motions, discuss and vote on any issue), signing documents, serving as Board representative in speaking to other governmental bodies (unless another Commissioner is so designated), having authority over committee appointments and calling special meetings. The Vice President performs these duties in the absence of the President. Commissioner Duggan has served one term as Vice President and would like to continue to serve.

The Treasurer serves as liaison between Board and staff regarding financial policies. In the absence of both the President and Vice President, the Treasurer performs the duties of the President. Commissioner Bagnall has served one term as Treasurer.

The Secretary countersigns official documents that the President signs. Commissioner Doane has served one term as Secretary and would like to continue to serve. The Acting Secretary performs this duty in the absence of the Secretary. Commissioner Schmidt has served one term as Acting Secretary.

Committees: Commissioners serve on various special interest, internal committees as well as various committees within the community. A description and/or list of each committee can be found in the attached document.

**Budget Impact:**

None

**Staff Contact Information:**

Tom Hickmann; Chief Executive Officer; 503-848-3088; [tom.hickmann@twd.org](mailto:tom.hickmann@twd.org)

**Attachments:**

Draft Board Appointments and Assignments Fiscal Year 2023-24

**Leadership Team Initials:**

Chief Executive Officer	TRH	Customer Service Manager	N/A
Chief Operating Officer	N/A	IT Services Director	N/A
Chief Financial Officer	N/A	Human Resources Director	N/A
General Counsel	CS	Water Supply Program Director	N/A



**BOARD APPOINTMENTS AND ASSIGNMENTS**  
**Effective July 20, 2023 for Fiscal Year 2023-24**

Board Officers	Commissioner				
	Doane	Duggan	Fisher	Lisac	Sanders
President (consecutive three-year term limit)					Second Term*
Vice President		Second Term*			
Treasurer			First Term*		
Secretary	Second Term*				
Acting Secretary				First Term*	
<b>Internal Committees</b>					
Budget Committee	Member	Member	Member	Member	Member
Policy and Board Development Committee		Member			Member
Water Supply Committee	Member				Member
Strategic Planning Committee	Member				Member
Finance Committee and Audit Committee		Member		Member	
<b>External Committees</b>					
Willamette River Water Coalition Board	Alternate				Primary
Willamette Intake Facilities Commission Board	Primary				Alternate
Willamette Water Supply System Commission Board	Alternate	Primary			
Joint Water Commission	Alternate			Backup	Vice Chair**
Barney Reservoir Joint Ownership Commission	Alternate			Backup	Vice Chair
Regional Water Providers Consortium Board/Executive Committee		Primary			Alternate
Aloha Business Association	Primary				
Washington County Public Affairs Forum (event attendance)		Alternate			Primary
Westside Economic Alliance (event attendance)	Alternate		Primary		

**Policy and Board Development Committee** – This committee will provide input and review of proposed updates to the Board Policy Manual. In reviewing and updating the Board policies, this committee will also identify effective Board processes, structures and roles. Other roles for this committee may include Board retreat planning, Board performance evaluation planning and orientation of new Commissioners.

**Water Supply Committee** – This committee will provide input to the CEO on strategic and policy matters related to continued implementation of the Willamette Water Supply Program, including issues such as system capacity, levels of service, expectations for seismic resiliency, public outreach strategies and partnership agreements.

**Strategic Planning Committee** – Members of this committee will participate in the biennial District strategic planning process to identify and prioritize District Initiatives for the coming biennium. The committee will also conduct periodic progress reviews of District Initiatives and track progress toward completing the initiatives.

**Finance Committee** – This committee will work with the CEO and CFO to track the District’s financial performance and will participate in development of draft financial policies and strategies such as debt planning and long-term rate planning.

**Audit Committee** – This committee provides independent review and oversight of the District’s financial reporting processes, internal controls and independent auditors.

\*Terms listed here are based on consecutive years in each position. \*\*Serves on Executive Committee