



Board Work Session Minutes  
April 7, 2020

*This meeting was held by phone and the internet.*

**WORK SESSION – 6:00 PM**

**CALL TO ORDER**

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

Staff Present: Tom Hickmann, PE, Chief Executive Officer; Clark Balfour, General Counsel; Paul Matthews, Chief Financial Officer; Carrie Pak, PE, Chief Engineer; Dave Kraska, PE, Water Supply Program Director; Andrew Carlstrom, Customer Service Manager; Tim Boylan, IT Services Director; Andrea Watson, Communications and Public Affairs Supervisor; Katherine Lipari DeSau, Executive Assistant

**ANNOUNCEMENTS**

Mr. Carlstrom presented the safety moment on household cleaning product safety.

Mr. Hickmann provided an update on TVWD's work transitions due to the coronavirus outbreak. He spoke about the recent Centers for Disease Control and Washington County face covering guidance to assist in reducing the spread of COVID-19. He announced that TVWD recently placed an order for cloth masks and expressed a desire to offer masks to employees and their families as a benefit. Commissioners indicated that this purchase and distribution is within the Chief Executive Officer's authority as outlined in the Emergency Declaration approved by the Board. In response to questions, Mr. Hickmann shared that Microsoft Teams is utilized for daily, all-staff emergency operations briefings. Participation has been high with over 100 staff joining daily.

Mr. Hickmann announced that the District has been working with Senator Merkley's office, seeking assistance to renegotiate Water Infrastructure Finance and Innovation Act (WIFIA) loan terms and requesting financial assistance for water customers. Additionally, TVWD has been coordinating with statewide organizations and regional partners on issues coming from the Governor's office, such as suspension of water shutoffs and requests for financial assistance. Mr. Hickmann then provided an update on the Board Communications Log (see attached memo).

## 1. DISCUSSION ITEMS

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

Mr. Kraska reviewed the March WWSS Commission Board meeting agenda, described the current approvals and procurements forecast and gave updates on Willamette Water Supply Program activities (see attached presentation).

In response to a questions, Mr. Kraska agreed to verify the cost of a 66-inch butterfly valve.

### B. Intergovernmental Agreement Between Clean Water Services and TVWD for Customer Information System (CIS) Implementation. *Staff Report – Andrew Carlstrom*

Mr. Carlstrom provided an overview of the District’s Customer Information System (CIS) Project, including the key objectives, scope, schedule and budget. He provided an update on the vendor selection process and highlighted the various CIS intergovernmental agreement phases and components (see attached presentation).

### C. Strategy for Issuing a Parity Certificate for the District’s Water Infrastructure Finance and Innovation Act (WIFIA) Bond. *Staff Report – Paul Matthews*

Mr. Matthews explained that the WIFIA requires TVWD’s Chief Financial Officer to issue a Parity Certificate when requesting a WIFIA loan fund disbursement. He reviewed a number of considerations for timing of WIFIA loan disbursements and requested Board feedback on strategy options (see attached presentation).

The Board expressed concern about COVID-19’s impact on TVWD and its customers. Staff reported that the District is examining options for expense reduction and customer assistance. In response to questions, Mr. Matthews conveyed the following:

- Hillsboro has already issued revenue bonds to fund part of the Willamette Water Supply System (WWSS), and within the last two weeks, the City of Beaverton issued revenue bonds for their share of the WWSS and their own WIFIA-funded program.
- The District can issue a Parity Certificate and refrain from drawing funds.
- WIFIA loan disbursement amounts are limited by fiscal year. Amounts not taken in a given year roll over to the subsequent year.

Commissioners Bagnall, Duggan, Sanders and Schmidt provided guidance in favor of option #3 in Mr. Matthews’ presentation. This option consists of issuing a Parity Certificate for \$250,000,000 of the total WIFIA loan. It also provides WIFIA loan borrowing capacity for three years, corresponds with the need for future revenue bonds and provides some flexibility, should a borrowing opportunity present itself. Commission Doane expressed a preference for option #4 but indicated that he was supportive of option #3.

**ADJOURNMENT**

There being no further business, President Bagnall adjourned the meeting at 8:04 p.m.

---

Bernice Bagnall, President

---

Todd Sanders, Secretary



## MEMO

**Date:** April 7, 2020  
**To:** TVWD Board of Commissioners  
**From:** Tom Hickmann, CEO  
**Re:** CEO Announcements

---

I will cover the following items during the CEO's Announcements at the work session:

1. **Be Sure to Use Microphones** – Just a reminder to please be sure to use your microphone whenever you are speaking during the work session this evening. Also, please be sure to turn off your microphone when you are not speaking.
2. **COVID-19 Update** – Tualatin Valley Water District (TVWD) has continued to work despite shifting how the work is conducted. This transition has been relatively seamless, including the ability for Customer Service staff to take calls from home.
  - All the work is being tracked, and we are logging calls to better record the number of calls we are receiving regarding the need for bill payment assistance.
  - The District has been holding daily all staff briefings and policy team meetings, along with daily Emergency Operations Center meetings.
  - TVWD is verifying worker status daily to track who is working from home and who is in the office.
  - TVWD has managed to keep onsite staff limited to between 12 to 15 employees who are spread out.
  - TVWD is conducting additional financial analyses to better understand the potential financial impacts tied to an increase in delinquent accounts.
  - Until further notice, all non-essential expenses, including training, projects and any work that can be postponed until a later date, require CEO approval. This is a precautionary measure to avoid expenses that are not deemed critical at this time.
  - While it is not yet necessary, the management team has begun to look at what additional cuts could be made, should we determine it is necessary to make reductions due to revenue decreases. The management team is beginning to look at priority of projects and consequences of delay. No decisions have been made at this time, but we want to be proactive on this issue. In the event that reductions become a reality, we will have already had time to discuss. Once the management team has a clear plan, we will share this with the Board so the Board can also have time to consider and provide guidance.

Following are key operations statistics for the time period of Monday, 3/23 through Sunday, 4/5:

Water delivered: 238 million gallons  
Field Customer Service responses: 831  
Customer emails responded to: 446  
Customer water bills processed: 15,345  
Customer calls handled: 551  
Retail meters installed: 23  
Retail meters repaired: 32  
Retail meters inspected: 6,411  
TVWD meters read: 13,499  
Beaverton meters read: 9,553  
Locates completed: 813  
Facility visits/inspections: 155  
Hydrants inspected and exercised: 247  
Hydrants repaired: 2  
Feet of mainline flushed: 65,278  
Water quality samples collected: 343

3. **Merkley Coordination** – TVWD has been coordinating with Merkley’s staff and his office in Washington, D.C. We are asking the Senator to assist us with renegotiating Water Infrastructure Finance and Innovation Act (WIFIA) loan terms for TVWD and our partners. The Senator has stated his support for doing this, and his staff are working with the EPA to assist in loan renegotiations for all WIFIA loan recipients. In addition to the WIFIA loan term modifications, the District has also been working with Senator Merkley on obtaining financial aid for our customers who are unable to pay. We are looking to develop something similar that the gas and power companies received in the first stimulus. Based on some rough analysis by Manny Teodora, from Texas A&M, he believes the water utilities will need approximately \$20B to offset losses.
  4. **Statewide Coordination** – TVWD has been coordinating with regional partners and with our statewide organizations, like Special Districts Association of Oregon and the League of Oregon Cities, on issues coming from the Governor’s office. This includes issues regarding the suspension of water shutoffs and financial assistance from the state. The District is also asking for data regarding layoffs, broken down by region. This information will help us better understand the potential for delinquent accounts.
  5. **Board Communications Log** – There were two updates to the Board Communications Log this month. Please see the attached, updated log and the March 17 and 24 Finance Committee meeting notes.
  6. **Safety Minute** – Andrew will present tonight’s safety/policy minute.
-

## 2020 Board Communications Log

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

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

Item Number	Requestor	Subject	Date Submitted	Response Date	Date Information Shared with Full Board
01-20					

Board Committee Information:

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

Meeting Date	Notes	Date Information Shared with the Full Board
<b>Finance Committee</b>		
March 17	Meeting synopsis prepared by Debbie Carper	April 7
March 24	Meeting synopsis prepared by Debbie Carper	April 7
<b>Policy and Board Development Committee</b>		
<b>Strategic Planning Committee</b>		
<b>Water Supply Committee</b>		

# Tualatin Valley Water District



Delivering the Best Water 💧 Service 💧 Value

Finance Committee Meeting  
March 17, 2020 (meeting via Microsoft Teams)

## Meeting Notes

Attendees: Commissioners Bagnall and Duggan

Staff Present: Tom Hickmann, Chief Executive Officer; Clark Balfour, General Counsel; Carrie Pak, PE, Chief Engineer; Dave Kraska, PE, Water Supply Program Director; Paul Matthews, Chief Financial Officer; Justin Carlton, Financial Operations Manager; Joe Healy, Senior Management Analyst; Debbie Carper, District Recorder

### 1. Update on Willamette Water Supply System Reservoir Cost Allocations

Mr. Matthews reviewed the attorney-client privileged documents that Mr. Balfour provided to the Commissioners in advance of the meeting.

Commissioners were most interested in the second reservoir cost share scenario presented and were satisfied with the accompanying rate increase projections. Mr. Matthews reiterated the preliminary nature of the projections and said a more comprehensive update of the Financial Plan will be provided to the full Board at the May work session.

Mr. Hickmann indicated the full Board will discuss the scenarios and projections at the March 18, 2020 executive session.

# Tualatin Valley Water District



Delivering the Best Water  Service  Value

Finance Committee Meeting  
March 24, 2020 (meeting via Microsoft Teams)

## Meeting Notes

Attendees: Commissioners Bagnall and Duggan

Staff Present: Tom Hickmann, Chief Executive Officer; Clark Balfour, General Counsel; Carrie Pak, PE, Chief Engineer; Paul Matthews, Chief Financial Officer; Joe Healy, Senior Management Analyst; Debbie Carper, District Recorder

### 1. Update on Willamette Water Supply System Reservoir Cost Allocations

Mr. Hickmann updated the Commissioners on an informal service area agreement that recently came to light. Staff still recommends pursuing two 15-million-gallon reservoirs. He shared the key points of the negotiation strategy.

Commissioners Bagnall and Duggan agreed to keep the remaining three Commissioners apprised of developments. Commissioner Bagnall also suggested creating brief staff reports to be sent out with materials in advance of any upcoming electronic meetings involving the Board.

Mr. Hickmann said he will update the full Board on this discussion.

### 2. Update on System Development Charges (SDCs)

Mr. Matthews requested staff be allowed to defer the research into potential SDC methodology changes suggested by Commissioner Duggan until the coronavirus pandemic subsides and workloads are back to normal. Commissioner Duggan requested completion prior to anticipated major redevelopment if possible.

Mr. Matthews suggested scheduling a Board work session on SDC methodology in the next few months, and the Commissioners agreed.

### 3. Water Infrastructure Finance and Innovation Act (WIFIA) Loan and Bond

Mr. Matthews gave a presentation providing information on WIFIA loan and bond strategy alternatives (see attached presentation). He shared various possible savings based on potential refinancing scenarios while stressing the unpredictability given the volatility of the markets.

In response to a question about the best timing for the Board to give direction, Mr. Matthews recommended solidifying a strategy in April.



# Tualatin Valley Water District



Delivering the Best Water 💧 Service 💧 Value

Based on Commissioner feedback, Mr. Matthews said he will bring three possible financing scenarios to the full Board at the April 7 work session for discussion.

# **WIFIA Loan and Bond**

## *Board Finance Committee*

**Paul Matthews**  
Chief Financial Officer

March 24, 2020

# Topics

- Update on WIFIA Program alternatives
- WIFIA Loan and bond strategy

# Finance Committee Topics

## Question

- How much of the WIFIA Loan should TVWD convert to bonded debt?

## Considerations

- Future state of TVWD's revenue
- Current financial performance
- Beaverton IGA
- Future borrowing needs

# Three Requirements for Draw

Approval of Eligible  
Project Costs by WIFIA  
Program

Cannot exceed the  
cumulative federal fiscal  
year totals per WIFIA  
Loan Agreement (WLA)

Must satisfy the  
additional bonds tests  
(parity test) requirements  
of the WLA

# Federal Fiscal Year Limits

## EXHIBIT B

### ANTICIPATED WIFIA LOAN DISBURSEMENT SCHEDULE

<u>Federal Fiscal Year</u>	<u>Amount</u>
2020	\$5,000,000
2021	\$20,000,000
2022	\$100,000,000
2023	\$125,000,000
2024	\$65,000,000
2025	\$30,000,000
2026	\$42,748,990
<b>Total</b>	<b>\$387,748,990</b>

- Maximum draw limited by cumulative amount available
- Unused amounts roll over from one year to the next
- Interest accrues once draw is made

# Definitions

## Gross Revenue

- Basically all revenue of the District
- Includes SDCs

## Net Revenue

- Gross revenue less operating expenses (excluding depreciation)
- Includes adjustments for rate increases adopted and in place

## Coverage Revenue

- Net revenue excluding SDCs
- Includes adjustments for rate increases adopted and in place

## Additional Bonds Test

### Requirements

- Net Revenue at least 1.25x maximum annual debt service
- Coverage revenue at least 1.15x maximum annual debt service



# Gross Revenues for FY2019

Description	FY2019
Gross Revenues	
Water Services	\$69,451,031
Administrative Services	3,633,228
Rental Income	81,979
System Development Charges	6,193,831
Interest Earnings	2,769,322
Total	<hr/> \$82,129,391

## Gross Revenues for Future Years

Description	FY2019	FY2020 Est
Gross Revenues		
Water Services	\$69,451,031	\$68,363,734
Administrative Services	3,633,228	3,633,228
Rental Income	81,979	81,979
System Development Charges	6,193,831	6,193,831
Interest Earnings	2,769,322	2,076,992
Total	\$82,129,391	\$80,349,763

# Additional Bonds Test I

Description	FY2019	FY2020 Est
Net Revenue		
Gross Revenue	\$82,129,391	\$80,349,763
Less Operating Expenses (Adjusted)	(33,013,524)	(34,609,913)
Plus Adjustment per Section 7.2	2,500,237	2,461,094
Total	<u>\$51,616,104</u>	<u>\$48,200,945</u>
Max Annual Debt Service	\$19,024,744	\$19,024,744
Debt Service Coverage	2.71x	2.53x

# Additional Bonds Test II

Description	FY2019	FY2020 Est
Coverage Revenues		
Net Revenue	\$49,115,867	\$45,739,851
Less System Development Charges	(6,193,831)	(6,193,831)
Plus Adjustment per Section 7.2	2,500,237	2,461,094
<b>Total Coverage Revenue</b>	<b>\$45,422,273</b>	<b>\$42,007,114</b>
 Max Annual Debt Service	 \$19,024,744	 \$19,024,744
Debt Service Coverage	2.39x	2.21x

# Remaining Debt Capacity Test I

Description	FY2019	FY2020 Est
Net Revenue	\$51,616,104	\$48,200,945
Minimum Requirement	1.25x	1.25x
Highest MADS	\$41,292,883	\$38,560,756
Less WIFIA	(19,024,744)	(19,024,744)
Remaining Debt Service Capacity	\$22,268,139	\$19,536,012
Estimated Max Principal Supported	\$321,010,069	\$281,624,635

# Remaining Debt Capacity Test II

Description	FY2019	FY2020 Est
Coverage Revenues	\$45,422,273	\$42,007,114
Minimum Requirement	1.15x	1.15x
Highest MADS	\$39,497,629	\$36,527,925
Less WIFIA	(19,024,744)	(19,024,744)
Remaining Debt Service Capacity	\$20,472,885	\$17,503,182
Estimated Max Principal Supported	\$295,130,279	\$252,320,025

# Hypothetical Poor Year Additional Bonds Test I

Description	Hypothetical Yr 1	Hypothetical Yr 2
Net Revenue		
Gross Revenue	\$66,745,930	\$65,698,129
Less Operating Expenses (Adjusted)	(37,985,495)	(39,780,762)
Plus Adjustment per Section 7.2	2,250,213	2,214,985
Total	<u>\$31,010,648</u>	<u>\$28,132,352</u>
Max Annual Debt Service	\$19,024,744	\$19,024,744
Debt Service Coverage	1.63x	1.48x

# Remaining Capacity in Hypothetical Poor Years

Description	Hypothetical Yr 1	Hypothetical Yr 2
Net Revenue	\$31,010,648	\$28,132,352
Minimum Requirement	1.25x	1.25x
Highest MADS	\$24,808,519	\$22,505,882
Less WIFIA	(19,024,744)	(19,024,744)
Remaining Debt Service Capacity	\$5,783,775	\$3,481,138
Estimated Max Principal Supported	\$83,376,968	\$50,182,920



# Questions for Finance Committee

## Key Questions

- Should we “take down” entire WIFIA Loan?
- What other concerns do you have?
- Should we discuss this at a Work Session with the Board?

# Household Chemicals

April 7, 2020 Safety Moment

## Takeaways:

Many regular household cleaning products don't mix

Always be aware of chemical reactions

### DO NOT MIX THESE CLEANING PRODUCTS

#### **BLEACH + VINEGAR**

Bleach and vinegar mixture produces chlorine gas, which can cause coughing, breathing problems, burning and watery eyes.



#### **BLEACH + AMMONIA**

Bleach and ammonia produce a toxic gas called chloramine. It causes shortness of breath and chest pain.



#### **BLEACH + RUBBING ALCOHOL**

Bleach and rubbing alcohol makes chloroform, which is highly toxic.



#### **HYDROGEN PEROXIDE + VINEGAR**

This combination makes peracetic/peroxyacetic acid, which can be highly corrosive



Tualatin Valley Water District



Delivering the Best Water  Service  Value

# Do Not Mix These Cleaning Products!

## BLEACH + VINEGAR

Bleach and vinegar mixture produces chlorine gas, which can cause coughing, breathing problems, burning and watery eyes.



## HYDROGEN PEROXIDE + VINEGAR

This combination makes peracetic/peroxyacetic acid, which can be highly corrosive



## BLEACH + AMMONIA

Bleach and ammonia produce a toxic gas called chloramine. It causes shortness of breath and chest pain.



## BLEACH + RUBBING ALCOHOL

Bleach and rubbing alcohol makes chloroform, which is highly toxic.



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

**Willamette Water Supply Commission Update**  
**TVWD Board Work Session**

April 7, 2020

# Outline

**Review April WWSS  
Commission Board  
Meeting Agenda**



**Review Approvals and  
Procurements Forecast**



**Update on WWSP  
Activities**

# REVIEW APRIL WWSS COMMISSION BOARD MEETING AGENDA

# Willamette Water Supply System

## April 2, 2020 Board Meeting Agenda

1. General Manager's Report
2. Public Comment
3. Consent Agenda
  - A. March 5, 2020 meeting minutes
  - B. March 17, 2020 special meeting minutes
4. Business Agenda
  - A. Approve Modifications to WWSS Management Authority Matrix
  - B. Adopt MPE\_1.0 Resolution of Necessity
  - C. Approve PLM\_1.2 Construction Contract (City of Wilsonville Contract) Change Order to add Day Road Crossing
5. Information Items
  - A. Planned May Business Agenda items

# REVIEW APPROVALS AND PROCUREMENTS FORECAST



# Approvals and Procurement Forecast for March 2020 – May 2020

## Program Baseline or Related Plans

Description	Program Director	WWSS Management Committee	WWSS Commission Board
WWSP FY 2020 – 21 Budget	NA	2/20/2020	3/5/2020
WWSP Annual Rebaseline	NA	4/23/2020	5/7/2020

# History of Baseline Budgets

Year	Baseline	Total Budget (\$B)	Management Reserve (\$M)	Notes
2016	1.1	\$1.17	\$90.7	Management Reserve estimated
2017	2.1	\$1.23	\$75.0	WTP moved, RWF predesign completed
2018	3.1	\$1.23	\$57.0	RWF construction phased, added Blake St.
2019	4.1	\$1.26	\$43.3	Program refinements, MPE_1.0
2020	5.1	\$1.31	\$39.4	WTP & PLW_2.0 refinements, added COB_1.0

2013 Black & Veatch planning study Willamette - Wilsonville estimate:  
M&I = \$1.01B in 2020 dollars  
Total = \$1.67B in 2020 dollars

## Approvals and Procurement Forecast for March 2020 – May 2020

# Real Estate

Description	Program Director	WWSS Management Committee	WWSS Commission Board
PLW_1.3 Resolution of Need	NA	1/23/2020	2/6/2020
MPE_1.0 Resolution of Need	NA	3/19/2020	4/2/2020
PLM_4.3 Resolution of Need	NA	5/21/2020	6/5/2020

## Approvals and Procurement Forecast for March 2020 – May 2020

# IGAs, MOUs, Permit Commitments

### South Hillsboro Area Pipeline (PLW\_1.3)

- Hagg Lane (Butternut Creek) Agreement Amendment (Dec)

### Washington County Land Use & Trans.

- PLW\_1.2 Design IGA Amendments (March)

### Scholls Ferry Area Pipeline (PLM\_5.2)

- Metropolitan Land Group Developer Agreement

### RES\_1.0 Emergency Responder Training Exercise Agreements

- Sheriff (April)
- TVF&R (May)

## Approvals and Procurement Forecast for March 2020 – May 2020

# Contracts

Title	Goal	Value	Key Dates
PLW_1.3 Construction Contract	Procure construction contractor for waterline construction from Farmington to Kinnaman	~\$32M	WWSS Board Approval: 5/7/2020 Notice to Proceed: 5/8/2020

## Approvals and Procurement Forecast for March 2020 – May 2020

# Contract Amendments and Change Orders\*

Title	Goal	Value	Key Date
PLM_5.3 Design Amendment	Amend contract for final design and services during construction to reflect realignment north of Farmington	\$1.3 M	2/20/2020 approval by WWSS MC 3/5/2020 approval by WWSS Board
PLM_1.2 Construction Contract Change Order	Amend contract to add Day Road crossing	\$2 M	3/19/2020 approval by WWSS MC 4/2/2020 approval by WWSS Board
WTP_1.0 Design Amendment	Amend contract for design services related to added engineering services	TBD	4/23/2020 approval by WWSS MC 5/7/2020 approval by WWSS Board
RWF_1.0 Contract Amendment for Phase 1 Guaranteed Max Price	Amend contract to include GMP for Phase 1 construction	~\$40 M	4/23/2020 approval by WWSS MC 5/7/2020 approval by WWSS Board

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

## Approvals and Procurement Forecast for March 2020 – May 2020

# Local Contract Review Board Rule Exemption

Title	WWSS Management Committee Approval	WWSS Board Informational Item	WWSS Board Consider Approval
Findings for Exemption from Competitive Bidding for RES_1.0 and PLM_5.3	4/23/2020	5/7/2020	6/4/2020

## Approvals and Procurement Forecast for March 2020 – May 2020

# Other Actions

Title	Goal	WWSS Management Committee Consider Approval	WWSS Board Consider Approval
WWSP Management Authority Matrix Revisions	Provide greater clarity and streamline the process for right-of-way acquisition	3/19/2020	4/2/2020



# UPDATE ON WWSP ACTIVITIES

# Accomplishments – Operations Planning

- Warranty inspection PLM\_3.0 represents first asset management activity for WWSS
- Kicked off the CMMS selection effort
- Held eO&M demos
- Advanced staff planning effort
- Coordinated water quality objectives at turnouts
- Prepared WQ sampling SOPs
- Continued Operations Plan content development

# Project Delivery Progress

Work Package	Design					Construction
	Conceptual/ Preliminary	30%/50%	60%/70%	90%	100%	
RWF_1.0	Complete					★
PLM_1.1	Complete					Active Work
PLM_1.2	Complete					Active Work
PLM_1.3	Complete	Active Work				
PLM_2.0	Complete					
PLM_3.0	Complete					
WTP_1.0	Complete	Active Work				
PLM_4.1	Complete				Active Work	
PLM_4.2	Complete	Active Work				
PLM_4.3	Complete			Active Work		
PLM_4.4	Complete			Active Work		
PLM_5.1	Complete				Active Work	
PLM_5.2	Complete				Active Work	
PLM_5.3	Complete	Active Work				
RES_1.0	Complete	Active Work				
PLW_1.1	Complete					
PLW_1.1 ext	Complete					
PLW_1.2	Complete				Active Work	
PLW_1.3	Complete				Active Work	★
PLW_2.0	Complete	Active Work				
MPE_1.0	Complete	Active Work				

Complete
  Active Work

# Construction Update

*Projects currently in construction*

Willamette Water Supply  
Our Reliable Water  
PROJECTS

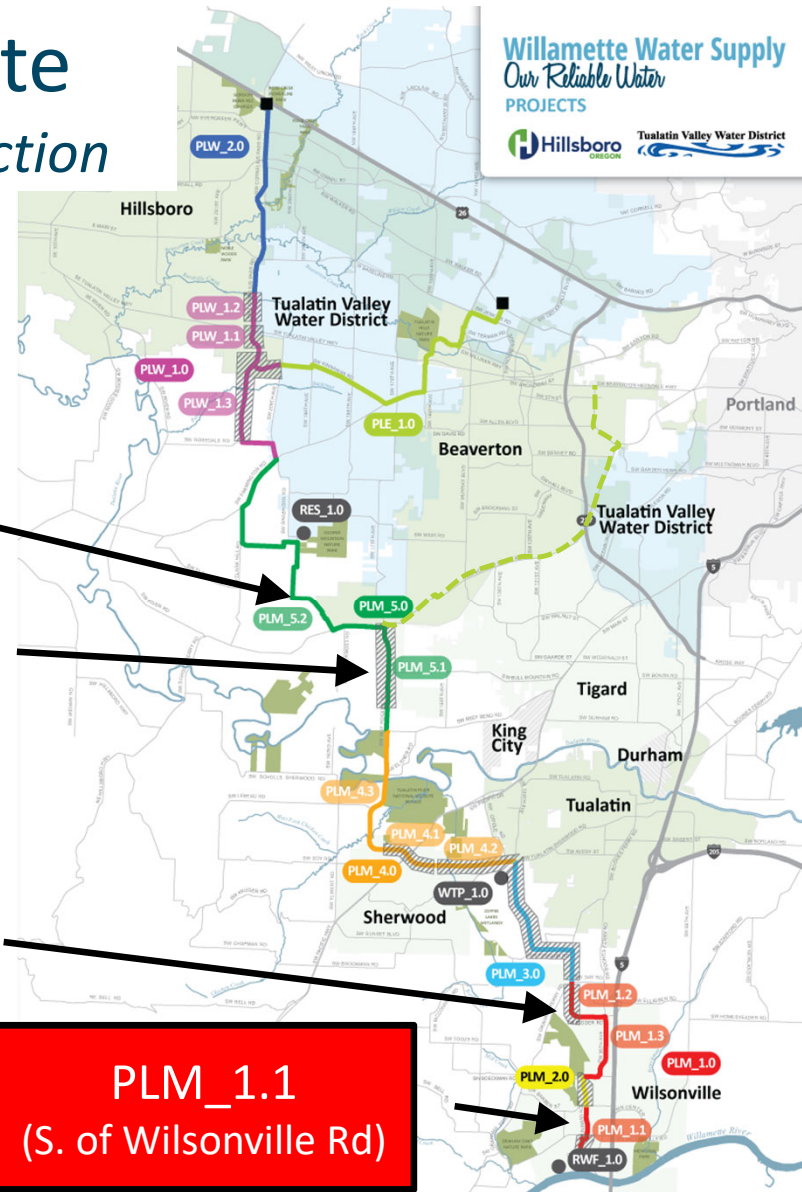


**PLM\_5.2**  
(Scholls Ferry/Tile Flat)

**PLM\_5.1**  
(Roy Rogers Rd)

**PLM\_1.2**  
(Garden Acres Rd)

**PLM\_1.1**  
(S. of Wilsonville Rd)



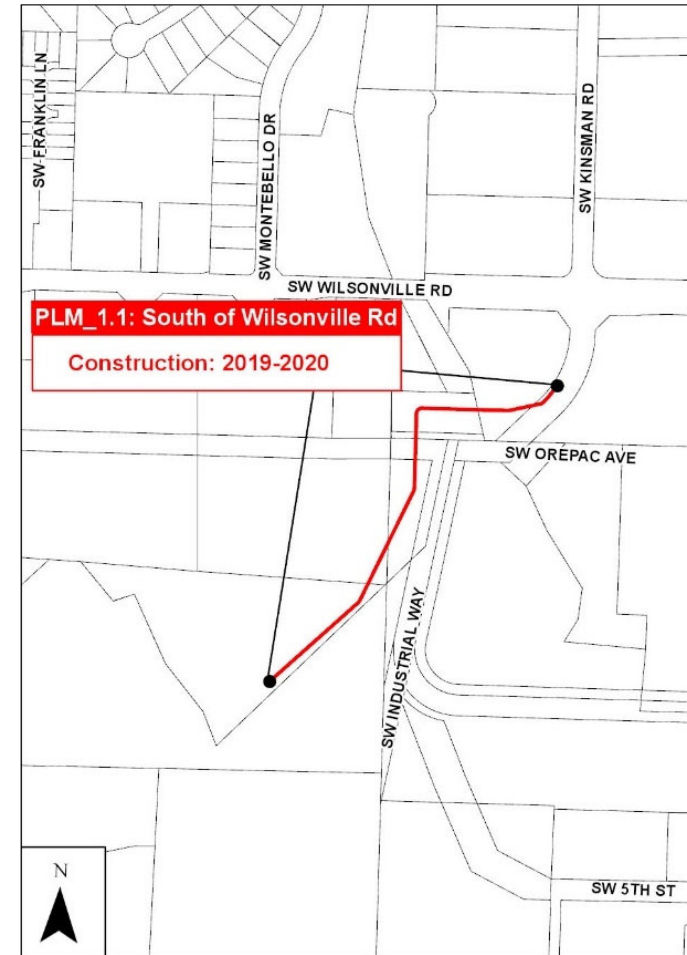
# PLM\_1.1

Contractor: James W. Fowler Co.

Designer: HDR

## Current and Planned Activities:

- Continued 66" pipeline installation
- 850 LF of pipe installed
- Air release vault and ancillary appurtenances
- Crossing of existing 63" waterline next month



# Construction Photos – PLM\_1.1

Aerial View – Construction Progress West of Coffee Lake Creek



# Construction Photos – PLM\_1.1

Installing 66" Pipe into Trench



# Construction Photos – PLM\_1.1

Compacting Pipe Zone Backfill  
Below Shoring Boxes





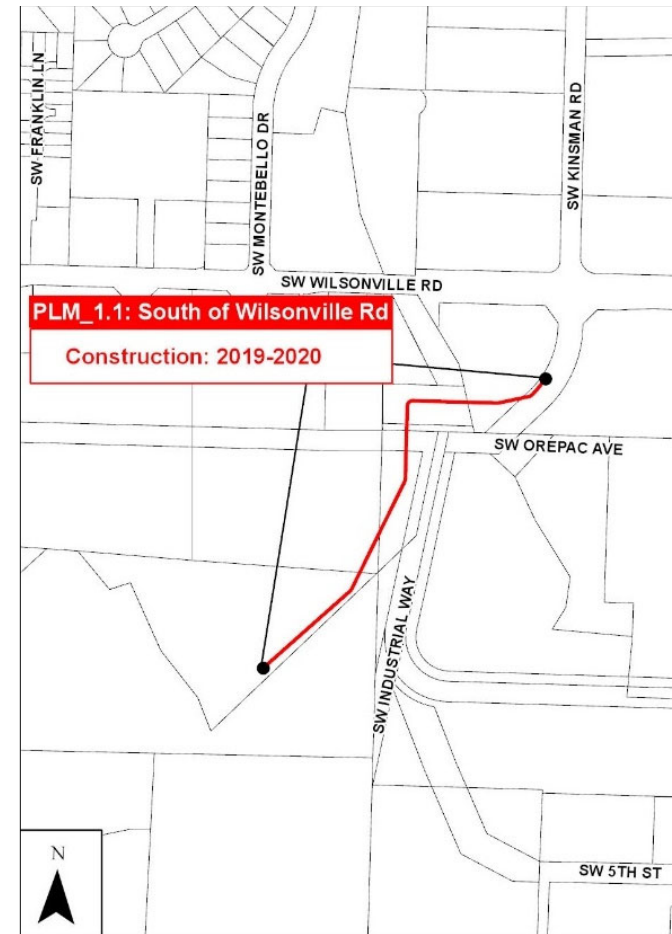
# Construction Photos – PLM\_1.1

Boulders Encountered



# PLM\_1.1 Notable Topics

- External Coordination
  - Continued coordination with Wilsonville Concrete and OrePac truck traffic on Industrial Way
- Potential Claims
  - None
- Delivery Challenges
  - None



## PLM\_1.2

Partner: City of Wilsonville

Contractor: Moore Excavation Inc.

Designer: HDR

### Current and Planned Activities:

- Continued installation of 42" and 36" storm sewer piping and associated MH's
- Continued waterline submittals
- First waterline activity scheduled for May 2020
- Negotiating potential change order for Day Rd. Crossing



## Construction Photos – PLM\_1.2

- Excavation for Installation of 36-in Storm Drain Piping Along Garden Acres Rd.



## Construction Photos – PLM\_1.2

- Consolidation of Excavated Boulders for Off-haul and Disposal



# PLM\_1.2 Notable Topics

- Partner Coordination
  - Coordination of Day Rd. crossing with City
- Potential Claims
  - None
- Delivery Challenges
  - None



## PLM\_5.1

Partner: Washington Co.

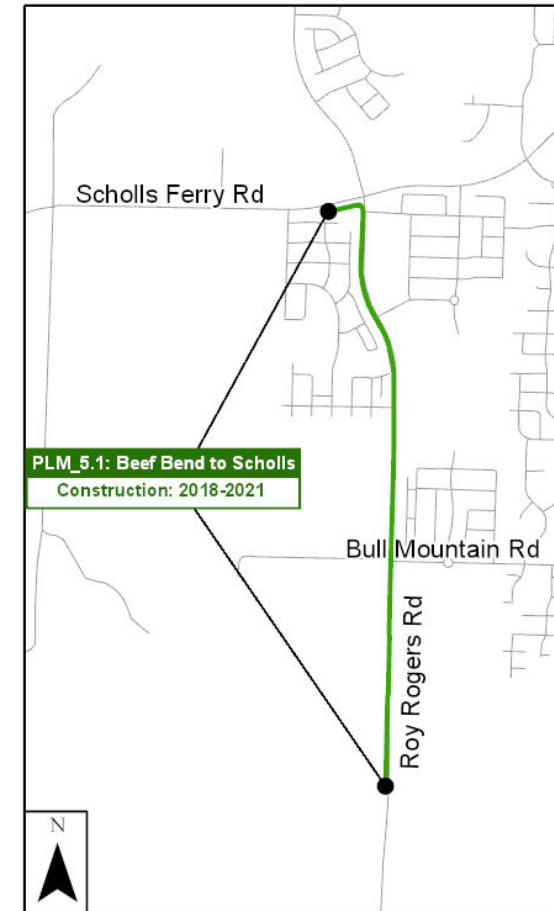
Contractor: Tapani, Inc.

(Moore Excavation Inc. – Waterline Sub)

Designer: Jacobs

### Current and Planned Activities:

- Carrier pipe installation underway in tunnel
- Utility relocation for open cut pipe installation in progress.
- Start of open cut installation planned for April 2020



# Construction Photos – PLM\_5.1

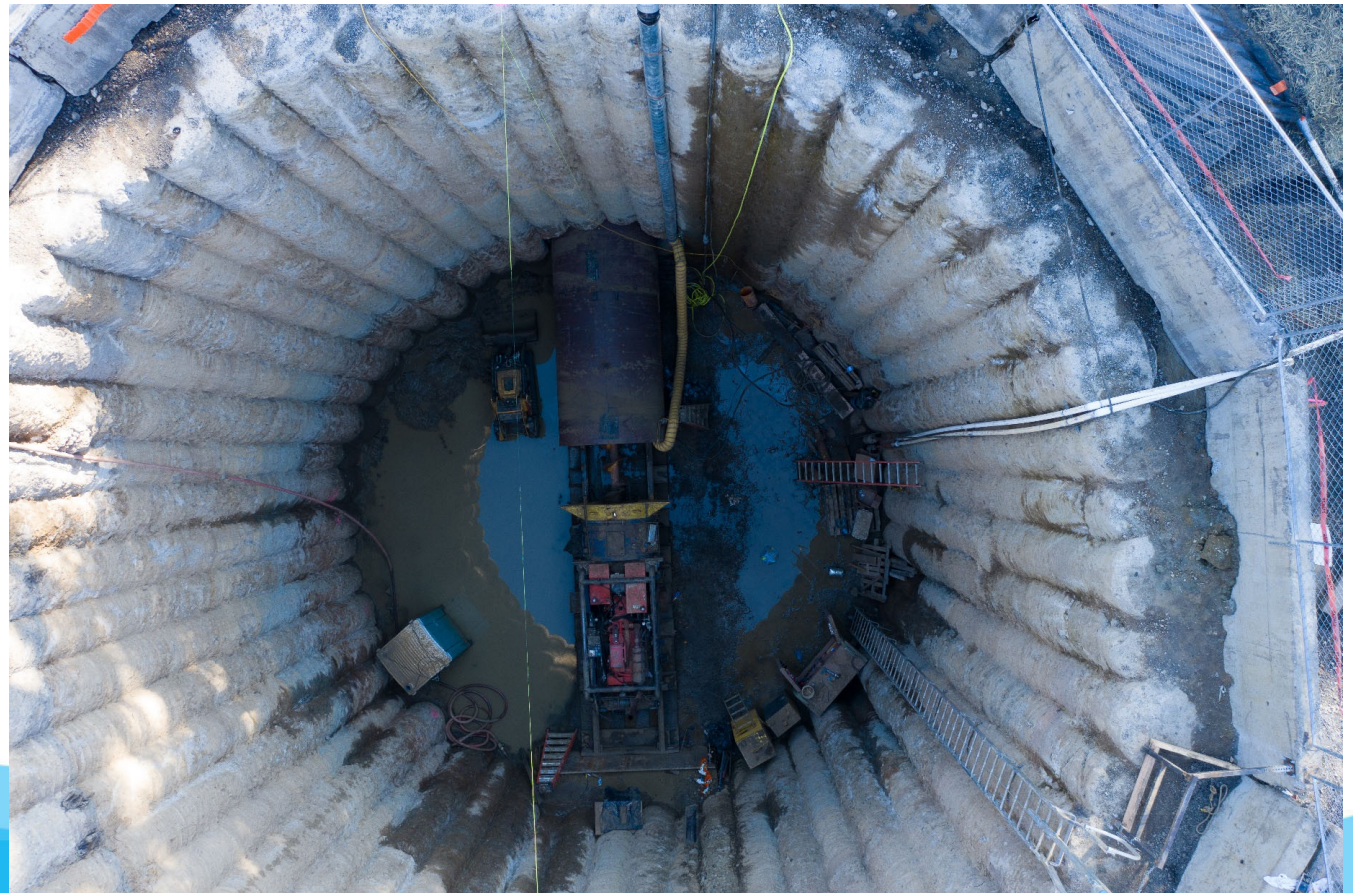
First Delivery of 66-in Carrier Pipe  
for Installation in Trenchless  
Crossing North of Jean Louise Rd.





# Construction Photos – PLM\_5.1

Tunneling at Tributary 1 near  
Roy Rogers Rd.



# Construction Photos – PLM\_5.1

Tunnel Receiving Shaft



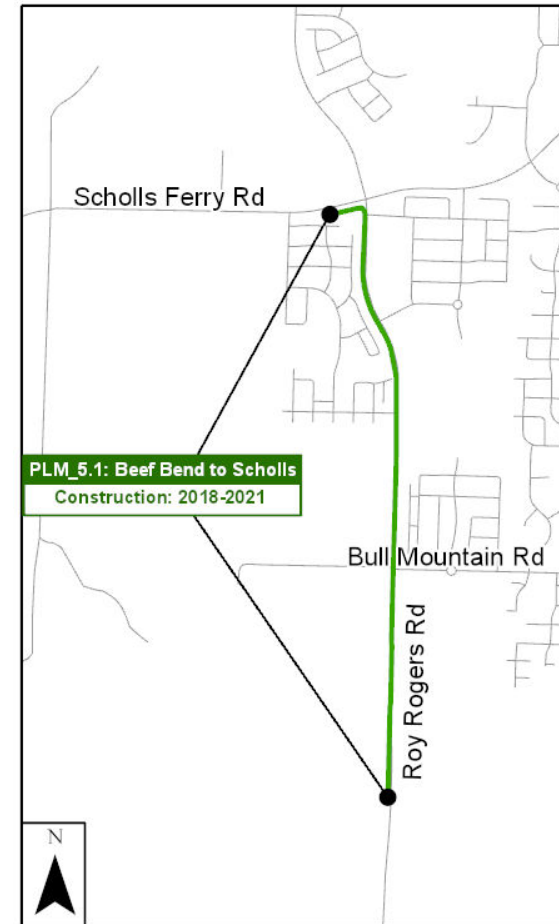
# Construction Photos – PLM\_5.1

Tunnel Boring Machine Breakthrough  
into Receiving Shaft



# PLM\_5.1 Notable Topics

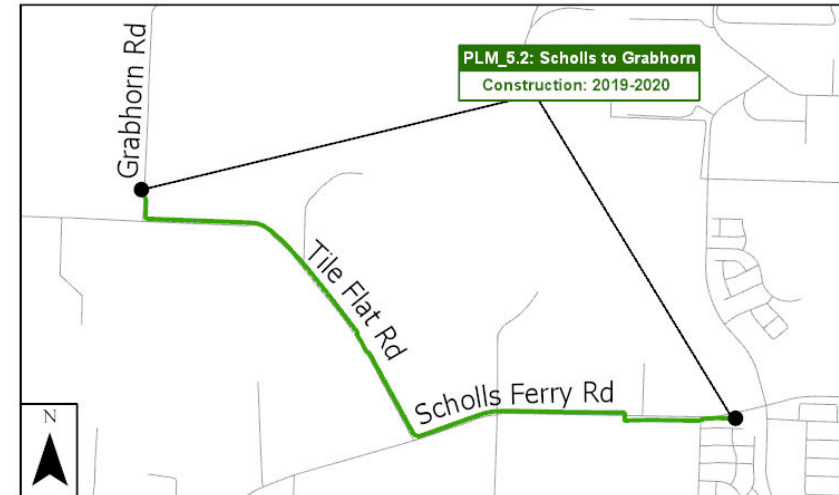
- Partner Coordination
  - Tigard turnout change order completed
- Potential Claims
  - None
- Claims
  - None
- Delivery Challenges
  - None



## PLM\_5.2

Contractor: Emery & Sons

Designer: Jacobs



### Current and Planned Activities:

- Immediate possession obtained for final easement
- 5,400 LF of pipe installed, welded and backfilled
- Two crews continued installing pipe toward the east on Scholls Ferry Rd and north on Tile Flat Rd
- Installed 66" butterfly valve, harness coupling and two CAVs
- Relocation of three PGE poles complete
- Trenchless crossing of Scholls Ferry Rd. begins this month

# Construction Photos – PLM\_5.2

Setting Rails for Tunneling Machine near Scholls Ferry Rd.



# Construction Photos – PLM\_5.2

Preparing to Set 66" BFV



# Construction Photos – PLM\_5.2

Installing 66” Waterline along Tile Flat Rd.





# PLM\_5.2 Notable Topics

- External Coordination
  - Sprint and NW Natural on Scholls Ferry Rd
- Potential Claims
  - None
- Delivery Challenges
  - Septic system relocations
  - Utility relocations



# QUESTIONS

# Customer Information System (CIS) Project Update

*April 7, 2020*

Andrew Carlstrom  
Customer Service Manager

---

**Tualatin Valley Water District**

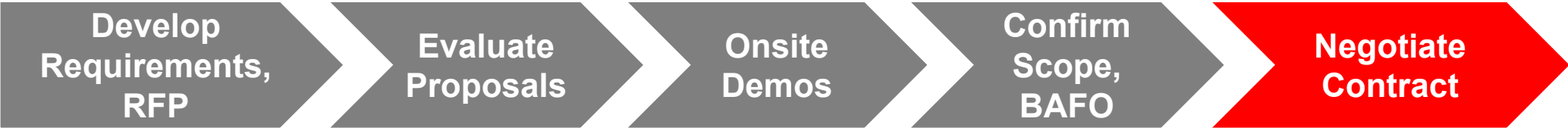


Delivering the Best Water 💧 Service 💧 Value

## CIS Project Review

- **Purpose: Replace TVWD's aging, customized utility billing system with a new commercial, off-the-shelf Customer Information System (CIS)**
  - Partnership between TVWD and Clean Water Services
- **Three phases, three agreements**
  - Selection, implementation, ongoing operations
- **Key ingredients**
  - Strong partnership
  - Organizational support
  - Project oversight
  - Commitment to configuration, not customization
  - Strong staff engagement
  - External expertise

# CIS Vendor Selection Update



**CIS Partners and  
Open International LLC**

## CIS Key Project Objectives

- 1. Address current and projected business needs**
- 2. Provide improved system reliability**
- 3. Increase customer satisfaction**
- 4. Improve supportability through:**
  - ✓ Minimizing (goal is zero) new system customization
  - ✓ Regular, vendor-provided technology updates
  - ✓ Complete legacy platform retirement
- 5. Provide greater integration with key business systems**
- 6. Manage risk through:**
  - ✓ Better controls
  - ✓ Data management, including customer information
  - ✓ Vendor support
- 7. Provide a sustainable, predictable support cost model**



## *Review: Scope, Schedule, Budget*

- **CIS Scope: The Essentials**
  - Solution to include: CIS, batch processing, customer self service portal
- **Multi-Year Project**
  - Implementation to start once CIS vendor selected, contract negotiated
  - Implementation: 20 – 22 months, including post-go-live stabilization
  - Implementation projected to begin late spring / early summer 2020
- **Total Project Budget: \$9.51 Million**
  - External costs: Software, hardware, professional services
  - Project labor costs
  - Contingency (10%)

## *CIS Phasing and Agreements Overview*

### **Phase I IGA**

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

### **Phase II IGA**

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

### **Phase III IGA**

- Ongoing TVWD/CWS operations under new CIS
- Develop, authorize prior to new CIS go-live



## *CIS Phase II IGA – Implementation Agreement*

- **Cost Sharing for Direct Project Expenses**
  - Vendor products and services
  - Third-party consultant services
  - Facility costs
  - Labor: staff allocated to project
  - Other costs mutually agreed upon by TVWD, CWS
- **Methodology** - Board delegates to CEOs:
  - Development of a task-based structure for sharing project costs
  - Some costs benefit both Partners (shared)
  - Some costs benefit one Partner (not shared)
- **Expense Reporting**
  - To both Partners for duration of implementation

# Questions?

# Considerations for Timing of WIFIA Loan Disbursements

## *Board Work Session*

**Paul Matthews**  
Chief Financial Officer

April 7, 2020

---

**Tualatin Valley Water District**



Delivering the Best Water 💧 Service 💧 Value

## Topics

### COVID-19 and Finance

- Financial market update
- Impacts on water industry
- Impacts on the District

### WIFIA Update

- Program alternatives
- WIFIA loan and bond strategy

# **COVID-19 and Finance**

## *Considerations for Timing of WIFIA Loan Disbursements*

**Board Work Session**

April 7, 2020

---

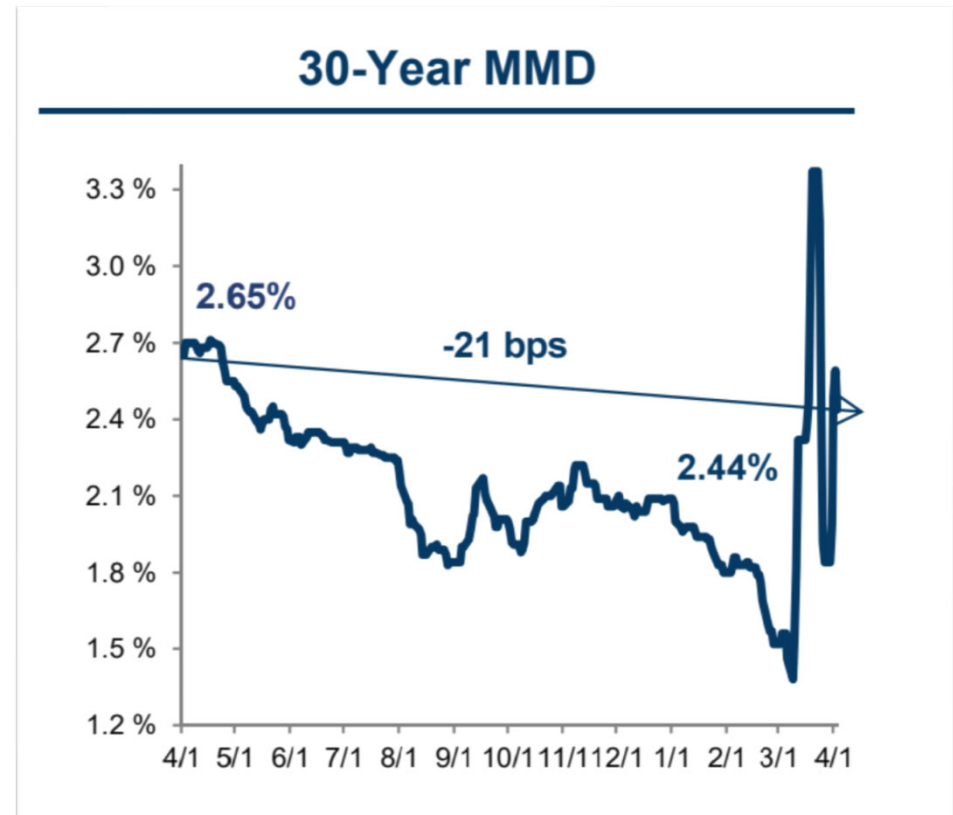
**Tualatin Valley Water District**



Delivering the Best Water 💧 Service 💧 Value

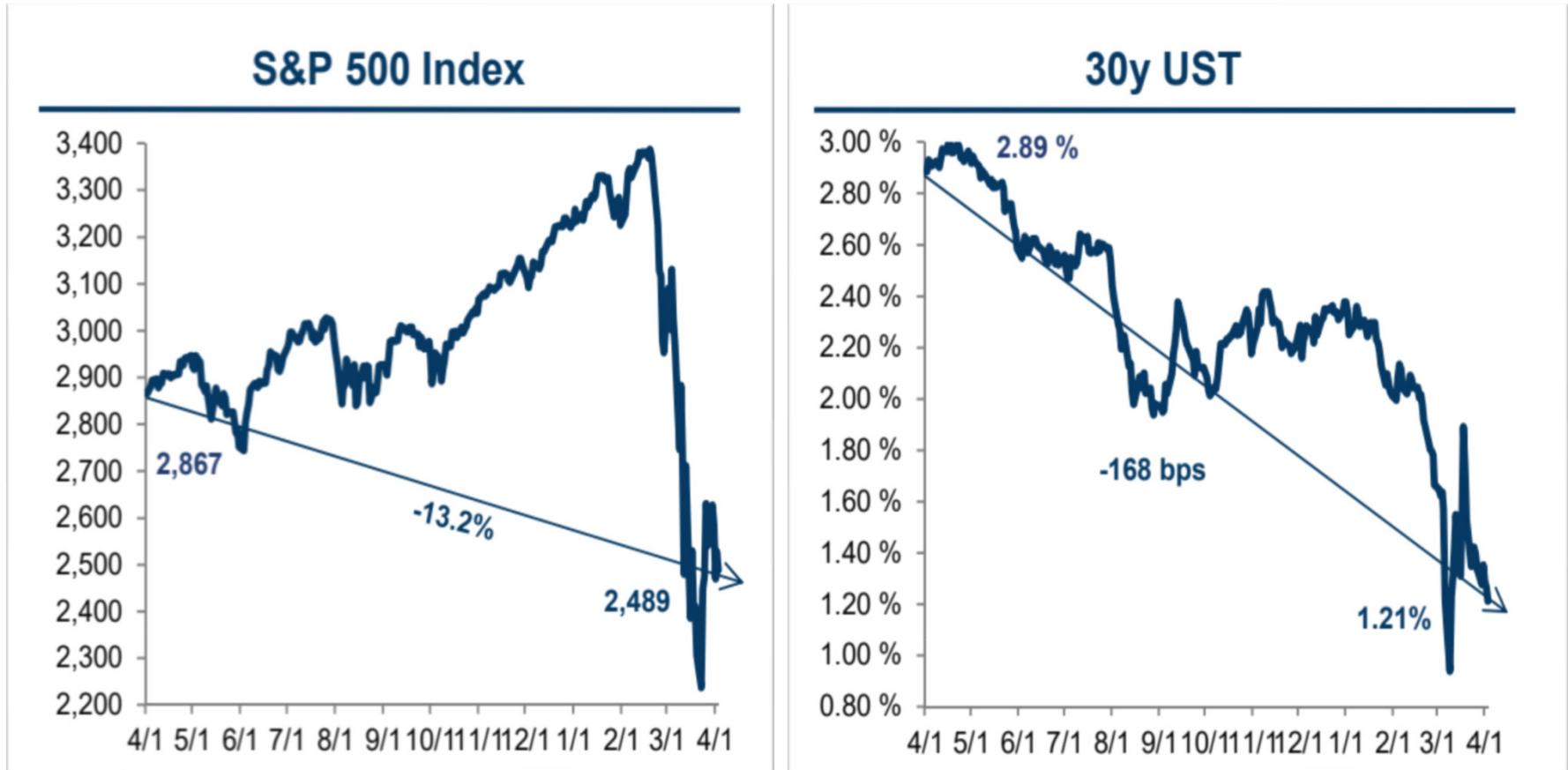
## Financial Markets and COVID-19

- Mid-March uncertainty and liquidity crunch
  - Market experts explain that losses in stock market increased redemption in bonds
  - Municipal bonds are not as liquid as US Treasury's bonds
  - Thinly traded bonds took a beating as investors moved to more liquid investments and covered losses in equities
  - Currently does not appear to be a credit concern



Source: Goldman Sachs Market Update, April 6, 2020. MMD is Municipal Market Data, AAA-rated bond index.

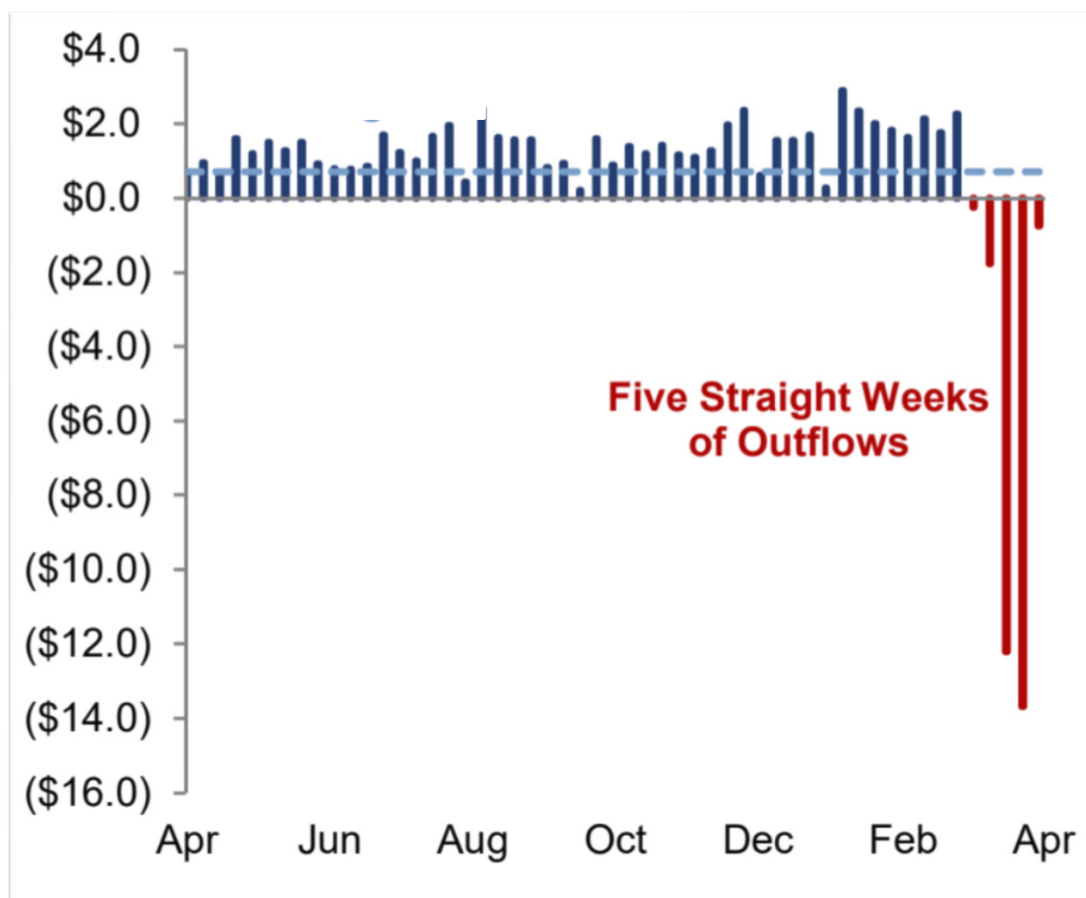
# Flight to Quality and Income Affect



Source: Goldman Sachs Market Update, April 6, 2020.

## Municipal Bond Fund Flows (\$Billions)

- Municipal Bond Funds saw dramatic outflows beginning in March
- Light-blue dashed line is last 12-month weekly average
- Red bars show the outflows that occurred in past five weeks
- Unprecedented change in market sentiment



Source: Goldman Sachs Market Update, April 6, 2020.

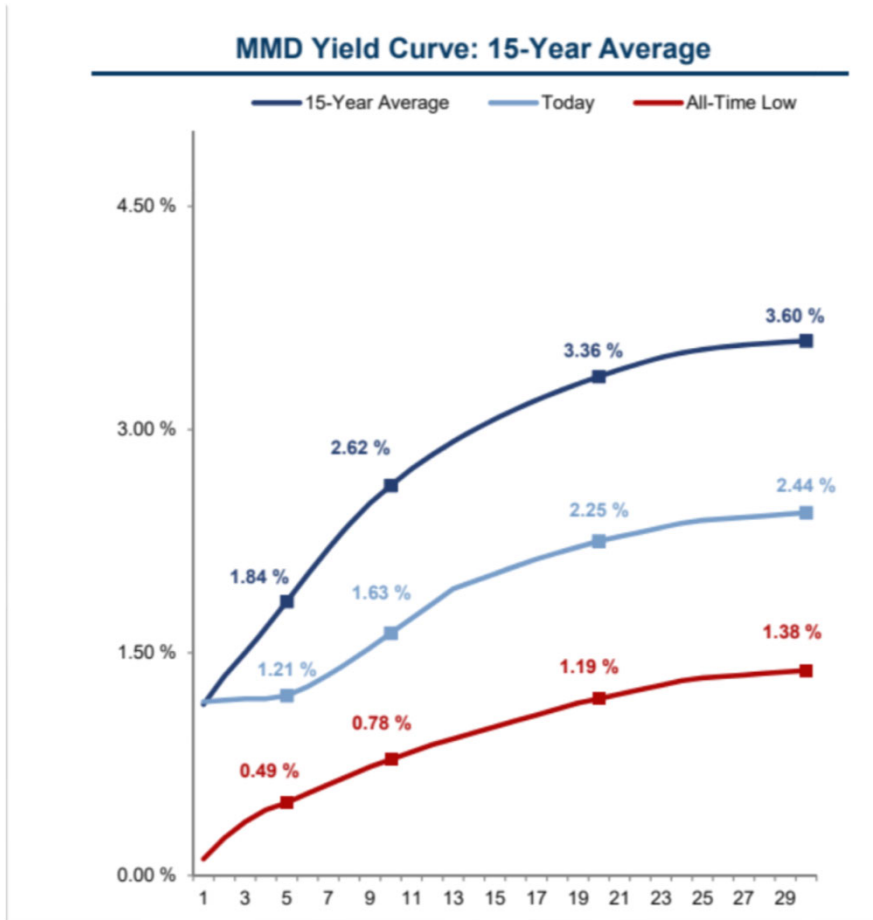


## Municipal Market Status

### According to Goldman Sachs

- Municipal bond funds see a fifth straight week of outflows, forcing investors to raise cash
- A number of issuers postpone transactions in the market this week due to volatility and need to update disclosure
- Secondary market bid lists reach record levels due to selling pressure and thin liquidity
- Rating agencies issue downgrades or put select municipal credits on negative outlook amidst the economic slowdown

## Where is the Bond Market Now



- MMD is the Municipal Market Data yield curve published by Thompson Reuters
- Largely based on AAA-rated GO bonds for states
- Water considered an essential service debt and in fairly good position
- Problems for convention centers, stadiums, toll roads, universities, etc.

## COVID-19 Impacts on District

### Concerns

- Water sales revenue
- System development charges
- Collections issues for customers
- Request for funds for Customer Emergency Assistance Fund
- Extraordinary operating expenses

### Current Understanding

- Water deliveries
- Cash collections and account receivable aging
- Water sales revenue
- Too early to understand trends
- Operating expenses appear to be in line with budget

# **WIFIA Update**

## *Considerations for Timing of WIFIA Loan Disbursements*

**Board Work Session**

April 7, 2020

---

**Tualatin Valley Water District**



Delivering the Best Water 💧 Service 💧 Value

## Potential Savings from New WIFIA Interest Rate

	FY2021	10-year period	
		FY2022 - FY2031	Rate Relief
<b>Base Case</b> (WIFIA = 2.39%)	3.6%	4.25%	NA
<b>Alternative 1</b> (WIFIA = 1.80%)	3.6%	3.9%	0.35%
<b>Alternative 2</b> (WIFIA = 1.50%)	3.6%	3.7%	0.55%

### Typical Monthly Bills (SFR 5/8" meter)

	FY2021	10-year period	
		FY2031	Monthly Savings
<b>Base Case</b> (WIFIA = 2.39%)	\$56.33	\$85.41	NA
<b>Alternative 1</b> (WIFIA = 1.80%)	\$56.33	\$82.58	\$2.82
<b>Alternative 2</b> (WIFIA = 1.50%)	\$56.33	\$81.01	\$4.40



# Caveats and Disclaimers

## General Caveats

- Only a *relative comparison*. We are still refining various assumptions.
- Does not include adjustments to revenue or expenses from COVID-19.

## Base-Case Rate Adjustment

- 4.25% annually, up from 3.6% during the last rate process.
- Revenue lower than previously projected due to continuing lower-than-average sales.
- Interest earnings have decreased.
- Capital expenditures are up (e.g., WWSP WTP, MPE and RES reallocation).
- O&M increased \$585K - \$700K annually FY2022-31 (e.g., SCADA tech, IT, training).

## Interest Rates

- LGIP rate or general return on portfolio - near-term and long-term trend.
- Projected debt financing rates for future revenue bonds.

## WIFIA Strategy

### Question

- How much of the WIFIA loan should TVWD convert to bonded debt?

### Considerations

- Future state of TVWD's revenue
- Current financial performance
- Future borrowing needs

## Three Requirements for Draw

Approval of Eligible  
Project Costs by  
WIFIA Program

Cumulative Federal  
Fiscal Year Totals in  
WIFIA Loan

Parity Certificate  
for the Amount



# Federal Fiscal Year Limits

## EXHIBIT B

### ANTICIPATED WIFIA LOAN DISBURSEMENT SCHEDULE

<u>Federal Fiscal Year</u>	<u>Amount</u>
2020	\$5,000,000
2021	\$20,000,000
2022	\$100,000,000
2023	\$125,000,000
2024	\$65,000,000
2025	\$30,000,000
2026	\$42,748,990
<b>Total</b>	<b>\$387,748,990</b>

- Maximum draw limited by cumulative amount available
- Unused amounts roll over from one year to the next
- Interest accrues once draw is made

## Definitions

### Gross Revenue

- Basically all revenue of the District
- Includes SDCs

### Net Revenue

- Gross revenue less operating expenses (excluding depreciation)
- Includes adjustments for rate increases adopted and in place

### Coverage Revenue

- Net revenue excluding SDCs
- Includes adjustments for rate increases adopted and in place

## Additional Bonds Test

### Net Revenue

- At least 1.25x maximum annual debt service

### Coverage revenue

- At least 1.15x maximum annual debt service

## Gross Revenues for FY2019

Description	FY2019
Gross Revenues	
Water Services	\$69,451,031
Administrative Services	3,633,228
Rental Income	81,979
System Development Charges	6,193,831
Interest Earnings	2,769,322
Total	<u>\$82,129,391</u>

## Gross Revenues for Future Years

Description	FY2019	FY2020 Est
Gross Revenues		
Water Services	\$69,451,031	\$68,363,734
Administrative Services	3,633,228	3,633,228
Rental Income	81,979	81,979
System Development Charges	6,193,831	6,193,831
Interest Earnings	2,769,322	2,076,992
Total	\$82,129,391	\$80,349,763

## Additional Bonds Test I

Description	FY2019	FY2020 Est
Net Revenue		
Gross Revenue	\$82,129,391	\$80,349,763
Less Operating Expenses (Adjusted)	(33,013,524)	(34,609,913)
Plus Adjustment per Section 7.2	2,500,237	2,461,094
Total	\$51,616,104	\$48,200,945
Max Annual Debt Service	\$19,024,744	\$19,024,744
Debt Service Coverage	2.71x	2.53x

## Additional Bonds Test II

Description	FY2019	FY2020 Est
Coverage Revenues		
Net Revenue	\$49,115,867	\$45,739,851
Less System Development Charges	(6,193,831)	(6,193,831)
Plus Adjustment per Section 7.2	2,500,237	2,461,094
Total Coverage Revenue	\$45,422,273	\$42,007,114
Max Annual Debt Service	\$19,024,744	\$19,024,744
Debt Service Coverage	2.39x	2.21x

## Remaining Debt Capacity Test I

Description	FY2019	FY2020 Est
Net Revenue	\$51,616,104	\$48,200,945
Minimum Requirement	1.25x	1.25x
Highest MADS	\$41,292,883	\$38,560,756
Less WIFIA	(19,024,744)	(19,024,744)
Remaining Debt Service Capacity	\$22,268,139	\$19,536,012
Estimated Max Principal Supported	\$321,010,069	\$281,624,635



## Remaining Debt Capacity Test II

Description	FY2019	FY2020 Est
Coverage Revenues	\$45,422,273	\$42,007,114
Minimum Requirement	1.15x	1.15x
Highest MADS	\$39,497,629	\$36,527,925
Less WIFIA	(19,024,744)	(19,024,744)
Remaining Debt Service Capacity	\$20,472,885	\$17,503,182
Estimated Max Principal Supported	\$295,130,279	\$252,320,025

## Hypothetical Poor Year Additional Bonds Test I

Description	Hypothetical Yr 1	Hypothetical Yr 2
Net Revenue		
Gross Revenue	\$66,745,930	\$65,698,129
Less Operating Expenses (Adjusted)	(37,985,495)	(39,780,762)
Plus Adjustment per Section 7.2	2,250,213	2,214,985
Total	<u>\$31,010,648</u>	<u>\$28,132,352</u>
Max Annual Debt Service	\$19,024,744	\$19,024,744
Debt Service Coverage	1.63x	1.48x

## Remaining Capacity in Hypothetical Poor Years

Description	Hypothetical Yr 1	Hypothetical Yr 2
Net Revenue	\$31,010,648	\$28,132,352
Minimum Requirement	1.25x	1.25x
Highest MADS	\$24,808,519	\$22,505,882
Less WIFIA	(19,024,744)	(19,024,744)
Remaining Debt Service Capacity	\$5,783,775	\$3,481,138
Estimated Max Principal Supported	\$83,376,968	\$50,182,920

## Discussions for the Board

### Key Questions

- How much of the WIFIA loan should we “take down” this year?
- What other concerns do you have?

## WIFIA Strategy for Parity Certificate

Federal Fiscal Year	Maximum Annual Disbursement	Option 1	Option 2	Option 3	Option 4
2020	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000
2021	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000
2022	100,000,000	0	100,000,000	100,000,000	100,000,000
2023	125,000,000	0	0	125,000,000	125,000,000
2024	65,000,000	0	0	0	65,000,000
2025	30,000,000	0	0	0	30,000,000
2026	42,748,990	0	0	0	42,748,990
<b>Total</b>	<b>\$387,748,990</b>	<b>\$25,000,000</b>	<b>\$125,000,000</b>	<b>\$250,000,000</b>	<b>\$387,748,990</b>

## Comparison of Coverage Ratios by Option

Description	Option 1	Option 2	Option 3	Option 4
WIFIA Loan Amount Activated	\$25,000,000	\$125,000,000	\$250,000,000	\$387,748,990
Maximum Annual Debt Service	\$1,226,615	\$6,133,073	\$12,266,147	\$19,024,744
<b>Financial Sensitivities</b>				
<b>FY2019 Actuals</b>				
Net Revenue	\$51,616,104	\$51,616,104	\$51,616,104	\$51,616,104
Coverage	42.08x	8.42x	4.21x	2.71x
Coverage Revenue	\$45,422,273	\$45,422,273	\$45,422,273	\$45,422,273
Coverage	37.03x	7.41x	3.70x	2.39x
<b>Hypothetical Bad Year</b>				
Net Revenue	\$28,132,352	\$28,132,352	\$28,132,352	\$28,132,352
Coverage	22.93x	4.59x	2.29x	1.48x
Coverage Revenue	\$27,512,969	\$27,512,969	\$27,512,969	\$27,512,969
Coverage	22.43x	4.49x	2.24x	1.45x

# Findings and Recommendations

## Findings

- District has sufficient Net Revenue and Coverage Revenue to activate the entire WIFIA loan.
- The District plans to issue traditional revenue bonds in FY2023 and will need debt capacity to issue those bonds.
- Rate increases between now and FY2023 should be sufficient to issue parity certificate for future debt. Debt capacity needs to continue to grow.
- There is some uncertainty in current revenue and future interest rates.

## Recommendation

- Option 3 -- \$250 million
- Provides WIFIA loan borrowing capacity for three years.
- Corresponds with need for future revenue bonds.
- Provides some flexibility should a borrowing opportunity present itself.

# Questions and Discussion

## *Considerations for Timing of WIFIA Loan Disbursements*

Board Work Session

April 7, 2020

---

**Tualatin Valley Water District**



Delivering the Best Water 💧 Service 💧 Value