



**TUALATIN VALLEY**  
WATER DISTRICT

# Board Work Session Minutes

August 1, 2023

## WORK SESSION – 6:30 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.

### ANNOUNCEMENTS

Tom Hickmann presented his CEO announcements and described the recent visit from Open as well as the recent open houses focused on TVWD rate increases.

### DISCUSSION ITEMS

- A. Willamette Water Supply System Commission Update. *Staff Report – David Kraska, P.E. Willamette Water Supply Program Director*

David Kraska presented his update on the Willamette Water Supply Commission.

Mr. Kraska gave a detailed report on the Willamette Water Supply Project fiscal year 2023 underspend analysis.

Tom Hickmann felt it would be beneficial to engage with the Water Supply Committee regarding the underspend analysis.

### ADJOURNMENT

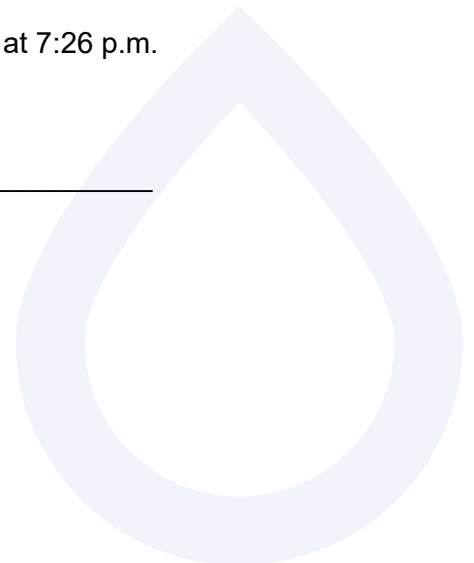
There being no further business, President Sanders adjourned the meeting at 7:26 p.m.

---

Todd Sanders, President

---

Jim Doane, Secretary





1

## OPEN VISIT

Last week, TVWD's Customer Information System vendor, Open International, was onsite to discuss the past year's successes, current challenges, and next steps. TVWD, CWS, and Open are working together to chart a path of continuous improvement to maximize our shared investment in the billing system.

2

## RATE OPEN HOUSE SESSIONS

As a reminder, TVWD's next virtual forum sessions will be held noon, August 2 and 17, and focus on water rate increases. Pre-registration is not required. You can find the link at: [www.tvwd.org/talkingwater](http://www.tvwd.org/talkingwater).

In addition, an in-person rate open house is scheduled for Saturday, August 5, 9:00am, at TVWD headquarters.

## BOARD COMMUNICATIONS LOG

There was one update to the Board Communications Log this month. Notes from the June 28<sup>th</sup> Finance Committee meeting were transmitted to Commissioners.

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

**Willamette Water Supply System Commission  
Update**

TVWD Board Work Session  
August 1, 2023

5

**Outline**

```
graph LR; A[Review August WWSS Commission Board Meeting Agenda] --> B[Review Approvals and Procurements Forecast]; B --> C[Update on WWSP Activities]
```

**Review August WWSS Commission Board Meeting Agenda**

**Review Approvals and Procurements Forecast**

**Update on WWSP Activities**

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

6

6

## REVIEW AUGUST WWSS COMMISSION BOARD MEETING AGENDA

Willamette Water Supply  
*Our Reliable Water*

7

7

## Willamette Water Supply System Commission August 1, 2023 Board Meeting Agenda

1. Executive Session
2. General Manager's Report
3. Public Comment
4. Consent Agenda
  - A. Approve the June 1, 2023 meeting minutes
5. Business Agenda
  - A. Approve Communications and Outreach Service Contract Amendment
6. Information Items
  - A. Planned October Business Agenda items
  - B. The next Regular Board Meeting scheduled on October 5, 2023

Willamette Water Supply  
*Our Reliable Water*

8

8

# REVIEW APPROVALS AND PROCUREMENTS FORECAST



9

9

## Approvals and Procurement Forecast for June – October 2023 Program Baseline or Related Plans

Description	Program Director	WWSS Management Committee	WWSS Commission Board
None	--	--	--



10

10

Approvals and Procurement Forecast for June – October 2023

Real Estate

Description	Program Director	WWSS Management Committee	WWSS Commission Board
None	--	--	--

11

Approvals and Procurement Forecast for June – October 2023

IGAs, MOUs, Permit Commitments

City of Sherwood

- DCS\_1.0 Broadband Services IGA (June)
- WTP\_1.0 Financial Security Assurance for Sherwood Public Improvements (August)

City of Wilsonville

- Ground Lease for Raw Water Pipeline, Amendment No. 2 (June)

12

Approvals and Procurement Forecast for June – October 2023

## Contracts

Title	Goal	Value	Key Dates
None	--	--	--

13

Approvals and Procurement Forecast for June – October 2023

## Contract Amendments and Change Orders\*

Title	Goal	Value	Key Dates
WWSP Program and Construction Management Services FY 2024 Annual Work Plan	Approve scope, staffing, and fee for program and construction management services for FY 2024	\$23.2M	WWSS Board Approval: 6/1/2023
Communications and Outreach Service Contract Amendment	Provide continuing public outreach during the term August 1, 2023 through June 30, 2024	\$531k	WWSS Board Approval: 8/3/2023

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

14



## Approvals and Procurement Forecast for June – October 2023

# Local Contract Review Board Rule Exemption

Title	WWSS Management Committee Approval	WWSS Board Informational Item	WWSS Board Consider Approval
None	--	--	--

15

## UPDATE ON WWSP ACTIVITIES

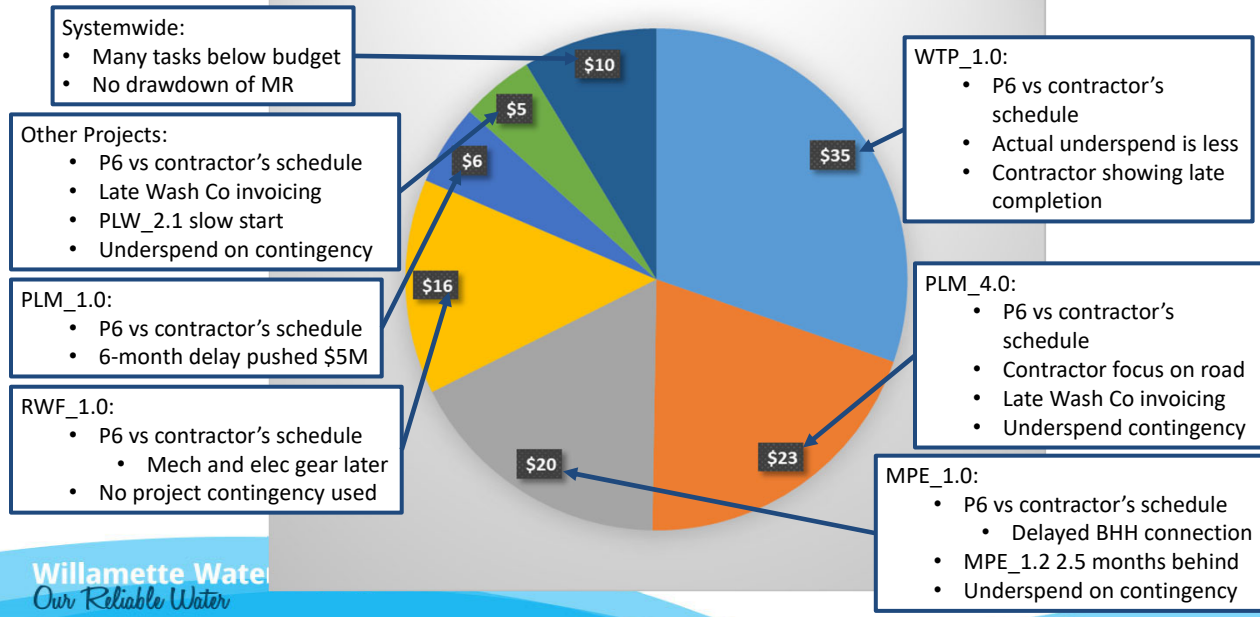
16

## Fiscal Year 2023 Underspend Analysis

- Planned FY 2023 spend per Baseline 7.1: \$431M
- Actual spend through June 30, 2023: ~\$280M
- Categories of underspend:
  - Actual costs lower than budget
  - Differences between our P6 schedule and the contractor’s schedule
  - Projects that are behind but on track to finish on time
  - Project with some schedule concerns

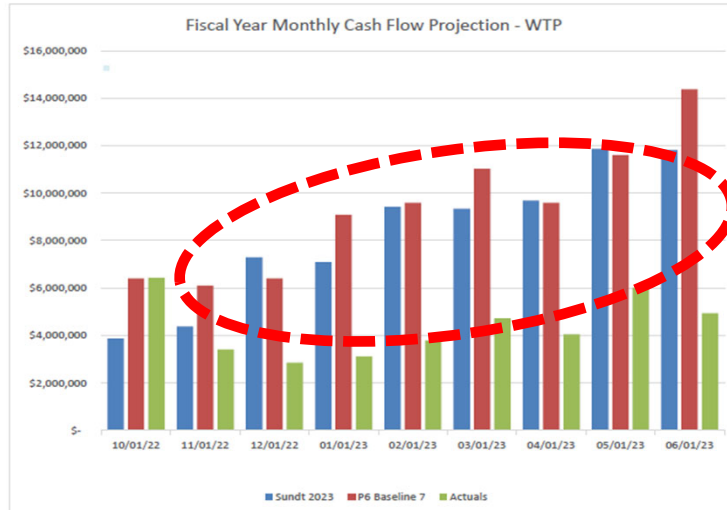
17

## Projected Cashflow Variance from Baseline for FY 2023



18

## WTP Spend Has Been Short Since Last November



**\$35M Underspend**

## WTP Team Working on Corrective Action Plan

- Agreed on plan with contractor
- Resolve three Time Impact Analyses
  - Ductile iron pipe
  - Underslab pipe encasement
  - DIP-related delays
- Address schedule quality issues
- “In-time” completion will likely require acceleration

ID	Task Name	Duration	Start	Finish	Predecessor	Level
1	WTP #1 & 2 Progress Schedule Catch-up Plan	234 days	Tue 11/2/22	Fri 10/2/23		1
2	Baseline to Feb 28 Review Plan	184 days	Tue 11/2/22	Tue 1/24/23		1
3	Baseline Information Review and Reconfirm	185 days	Tue 11/2/22	Mon 1/23/23		1
4	WSPF Review Comments with Sundt	2 days	Tue 1/23/23	Tue 1/23/23	3	1
5	Make Corrections Noted	0 days	Tue 1/23/23	Tue 1/23/23	4	1
6	March 22 to June 22 Catch-up	92 days	Tue 1/23/23	Mon 6/26/23		1
7	Review and Approve Schedule Submission	0 days	Tue 1/23/23	Tue 1/23/23	6	1
8	March 22 to June 22 Progress Update Review & Comments	94 days	Wed 1/24/23	Mon 6/26/23		1
9	Make Corrections and Return	34 days	Tue 6/26/23	Fri 8/2/23	8	1
10	Confirm Approved and Approved Schedule Update	3 days	Mon 8/2/23	Mon 8/2/23	9	1
11	Final Review Plan	94 days	Wed 1/24/23	Tue 6/26/23		1
12	TIA #1 - Area 28 Underlaid Pipe Impacts	9 days	Wed 1/24/23	Mon 1/30/23		1
13	TIA #1 Review	5 days	Wed 1/24/23	Tue 1/30/23	12	1
14	Fact and Rational Walk with Sundt	3 days	Wed 1/24/23	Wed 1/30/23	13	1
15	Issue Recommendation with Rational	0 days	Thu 1/30/23	Mon 1/30/23	14	1
16	TIA #1 Closed	0 days	Mon 1/30/23	Mon 1/30/23	15	1
17	TIA #2 - Area 28 Underlaid Pipe Encasement Changes	21 days	Tue 6/26/23	Tue 7/10/23		1
18	TIA Adjustments from March to June Catch-up Review	24 days	Tue 6/26/23	Fri 8/2/23	17,17	1
19	Fact and Rational Walk with Sundt	2 days	Mon 8/2/23	Tue 8/28/23	18	1
20	Issue Recommendation with Rational	0 days	Wed 8/30/23	Tue 9/4/23	19	1
21	TIA #2 Closed	0 days	Tue 9/4/23	Tue 9/4/23	20	1
22	TIA #3 - DC 28 24 Pipe Changes	21 days	Wed 7/26/23	Wed 8/23/23		1
23	Fact and Rational Walk with Sundt	3 days	Tue 8/22/23	Mon 8/28/23	22,23	1
24	Issue Recommendation with Rational	0 days	Thu 8/31/23	Wed 9/6/23	23	1
25	TIA #3 Closed	0 days	Wed 9/6/23	Wed 9/6/23	24	1
26	Recovery Planning	24 days	Wed 8/23/23	Mon 9/18/23		1
27	Recovery Planning Part 1	5 days	Wed 8/23/23	Tue 9/5/23	26	1
28	Recovery Planning Part 2	5 days	Wed 9/5/23	Tue 9/12/23	27	1
29	Recovery Planning Summary / Options	3 days	Wed 9/12/23	Fri 9/20/23	28	1
30	Recovery Plan Options Costs & Improvements Presentations	4 days	Mon 9/25/23	Fri 9/29/23	29	1
31	WSPF Decision on Recovery Options	0 days	Fri 9/29/23	Fri 9/29/23	30	1

## WWSP Will Improve Forecasting and Reporting

- Account for differences between P6 and the contractors' schedules
- Improved monthly updates to account for real-time changes in the field
- Due to timing of Baseline preparation, achieving perfect alignment with actual spend timing will remain elusive
  - September-November – data for next Baseline collected
  - January – obtain approval of Baseline to seek Board approval
  - February-April – request Board approval of next Baseline
  - April-June – Partners update financial plans for new Baseline
  - July – new fiscal year based on information from last fall

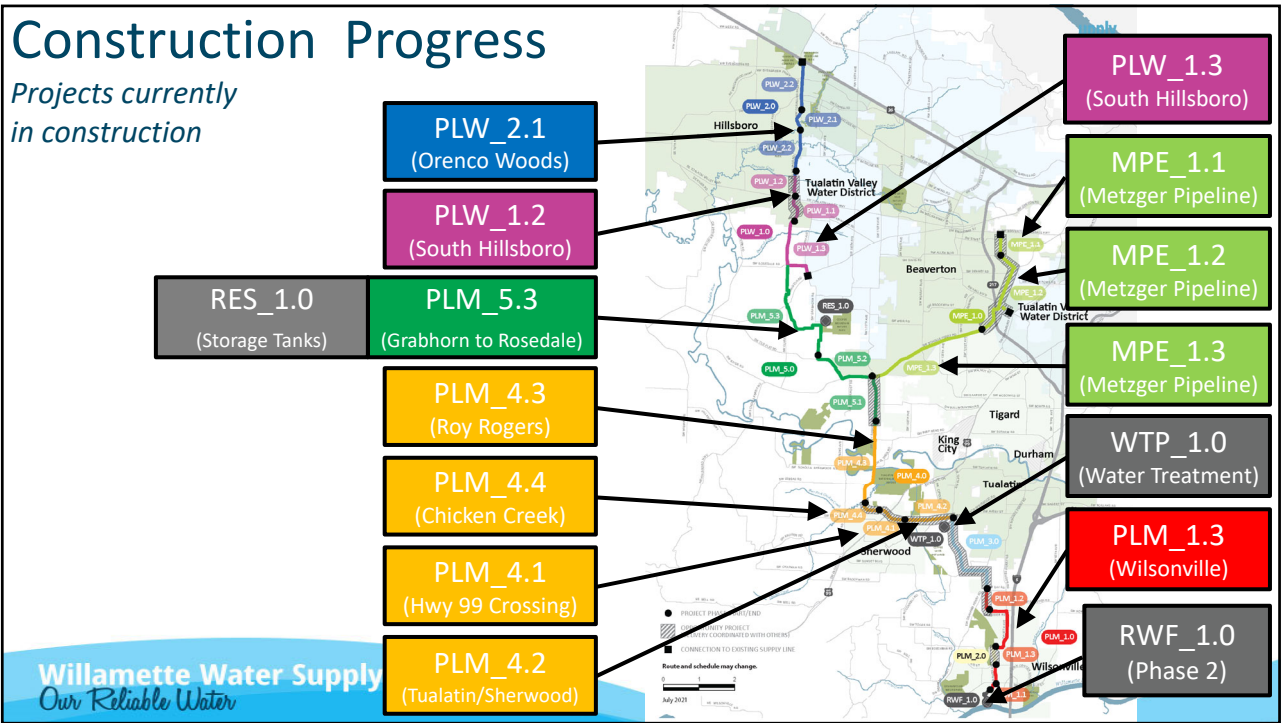
21

## WWSP CONSTRUCTION UPDATES

22

# Construction Progress

Projects currently in construction



23

## Estimated Construction Physical Percent Complete

		0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	
Raw Water Facility	RWF_1.0 (Phase 1)	[100% Complete]											✓
	RWF_1.0 (Phase 1.5)	[100% Complete]											✓
	RWF_1.0 (Phase 2)	[10% Complete]											
Raw Water Pipelines	PLM_1.1	[100% Complete]											✓
	PLM_1.2	[100% Complete]											✓
	PLM_1.3	[10% Complete]											
	PLM_2.0	[100% Complete]											✓
	PLM_3.0	[100% Complete]											✓
Water Treatment Plant	WTP_1.0	[10% Complete]											
Finished Water Pipelines	PLM_4.1	[85% Complete]											
	PLM_4.2	[15% Complete]											
	PLM_4.3	[45% Complete]											
	PLM_4.4	[30% Complete]											
	PLM_5.1	[100% Complete]											✓
Reservoir	RES_1.0/PLM_5.3	[50% Complete]											
	PLM_5.2	[100% Complete]											✓
Finished Water Pipelines	PLW_1.1	[100% Complete]											✓
	PLW_1.2	[75% Complete]											
	PLW_1.3	[80% Complete]											
	PLW_2.1	[5% Complete]											
	MPE_1.1	[70% Complete]											
	MPE_1.2	[65% Complete]											
	MPE_1.3	[15% Complete]											

Willamette Water Supply  
Our Reliable Water

Completed This Period  
Previously Completed

Estimate is an opinion based on (1) actual costs paid, (2) pay applications in development, and (3) field staff observations. Refer to published reports for fully-vetted information.

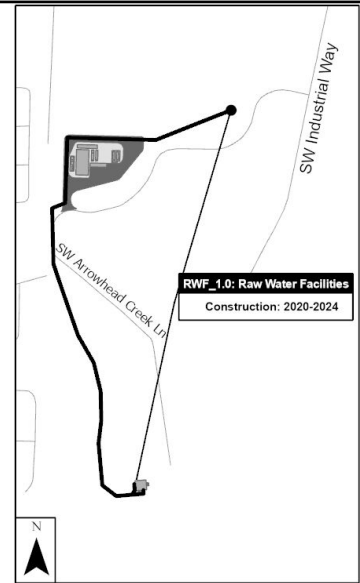
24

## RWF\_GMP-2.0

Contractor: Kiewit Infrastructure West Co.  
 Designer: Black & Veatch

### Current and Planned Activities:

- Installing cement masonry unit (CMU) block walls at Electrical Building
- Beginning install of structural steel embeds in CMU
- Completed concrete placement for Transformer slab and for Surge Tank slab
- Electrical subcontractor working on electrical duct banks and embedded conduits
- Began footing for perimeter wall along west property line
- Completed turnover of Lower Site park maintenance to City of Wilsonville Parks Department



25

## Construction Photos – RWF\_GMP-2.0

Upper Site:  
 Electrical Building and ancillary structures progress.



26

## Construction Photos – RWF\_GMP-2.0

Upper Site:  
Electrical  
Building  
CMU wall  
progress.  
Backfilling  
around  
Transformer  
slab.



Willamette Wa  
Our Reliable Water

27

## Construction Photos – RWF\_GMP-2.0

Upper Site: Excavation  
for perimeter wall  
footing.



Willamette Water Supply  
Our Reliable Water

2023/07/10 16:26

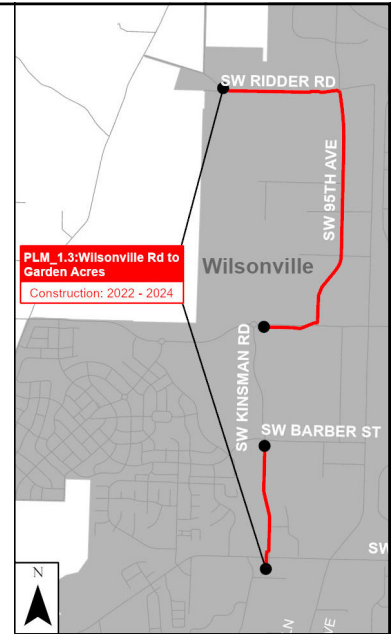
28

# PLM\_1.3

Contractor: Moore Excavation Inc.  
 Designer: HDR

## Current and Planned Activities:

- Completed tunnel and carrier pipe under Wilsonville Road
- Continued 66" open cut waterline on north end of 95<sup>th</sup> Avenue – 3600 LF (30%) installed
- Starting 66" open cut waterline on Kinsman Road in late July



# Construction Photos - PLM\_1.3

Waterline installation on 95<sup>th</sup> Avenue





## Construction Photos - PLM\_1.3

66-inch carrier pipe installation at Wilsonville Road trenchless crossing



Willamette Water Supply  
Our Reliable Water

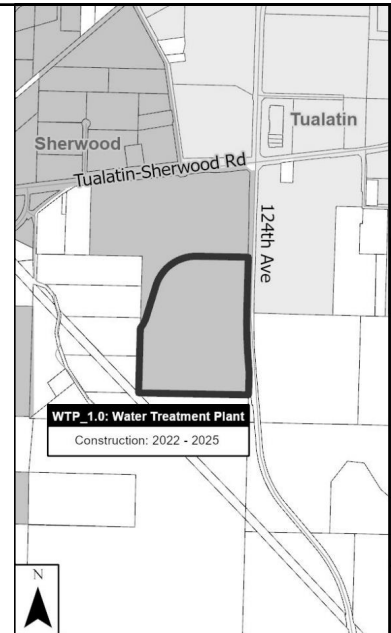
31

## WTP\_1.0

Contractor: Sundt Construction, Inc.  
Designer: CDM Smith

### Current and Planned Activities:

- Electrical duct bank along Orr Drive nearly complete (crossed 124<sup>th</sup> Avenue toward PGE connection)
- Continued yard piping and concrete pipe encasements
- Continued wall concrete placements at Area 30 (UV building).
- Grading for concrete slab at Area 35 (Clearwell)
- Continued wall and slab concrete at Area 37 (EQ Basin)
- Continued wall concrete placements at Area 53 (Finished Water Pump Station).



Willamette Water Supply  
Our Reliable Water

32

32

## Construction Photos - WTP\_1.0

WTP\_1.0 site  
looking south



Willamette Water  
*Our Reliable Water*

33

## Construction Photos - WTP\_1.0

Area 28 & 30  
Under slab Piping



Willamette Water Sup  
*Our Reliable Water*

34

## Construction Photos - WTP\_1.0

UV area walls and yard piping



Willamette Water Sup  
Our Reliable Water

35

## Construction Photos - WTP\_1.0

Finished water pump station



Willamette Water Sup  
Our Reliable Water

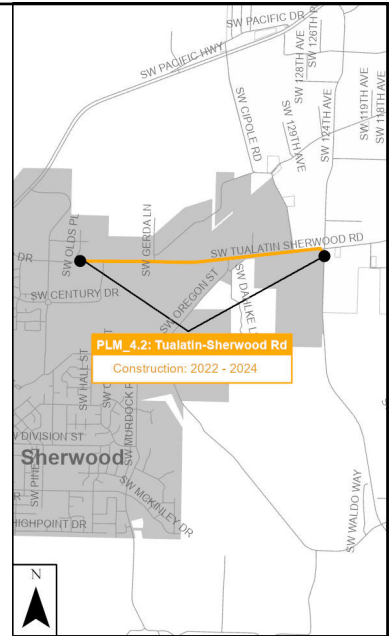
36

## PLM\_4.2

Partner: Washington County  
 Contractor: Kerr/Emery JV  
 Designer: Brown & Caldwell

### Current and Planned Activities:

- Traffic has shifted to the south side of Tualatin-Sherwood Road along the WWSP alignment
- Tree removal and demo has started on the north side
- WWSP submittals
- WWSP work scheduled to start August/September

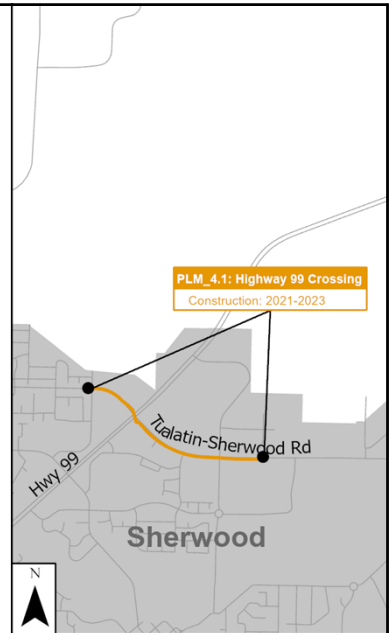


## PLM\_4.1

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

### Current and Planned Activities:

- 66" waterline is completely installed
- Appurtenance piping and vaults
- Cathodic protection system installation
- Continue road widening along the south side of Tualatin-Sherwood Road



## Construction Photos – PLM\_4.1

Constructing blowoff at  
Baler Way and  
Tualatin-Sherwood  
Road



Willamette Water Supply  
*Our Reliable Water*

39

## Construction Photos – PLM\_4.1

Road paving on Roy  
Rogers Road near  
Borchers Drive



Willamette Water Supply  
*Our Reliable Water*

40

## Construction Photos – PLM\_4.1

Road widening on  
Tualatin Sherwood  
Road near Langer Farms  
Parkway



Willamette Water Supply  
*Our Reliable Water*

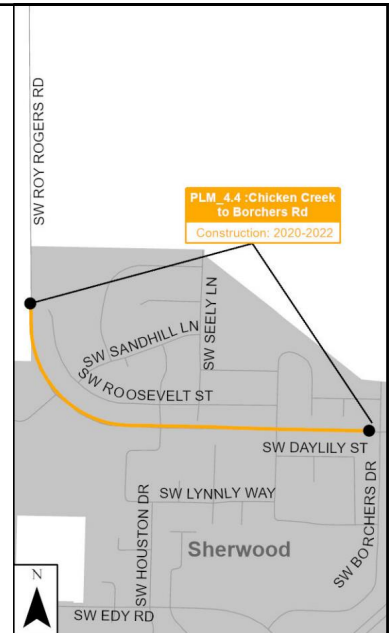
41

## PLM\_4.4

Partner: Washington County  
Contractor: Tapani Inc.  
Designer: Brown & Caldwell

### Current and Planned Activities:

- 66" waterline installation completed with the exception of the tie-ins to PLM\_4.1 and PLM\_4.3
- Appurtenances starting in July
- Testing/disinfection scheduled for August



Willamette Water Supply  
*Our Reliable Water*

42

42

## Construction Photos – PLM\_4.4

Setting pipe along Roy Rogers Road near Borchers Drive



Willamette Water Supply  
Our Reliable Water

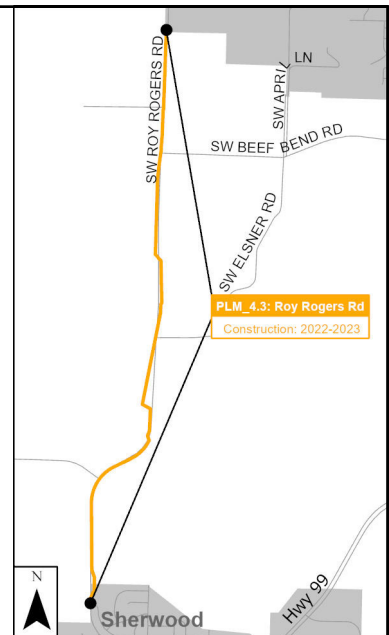
43

## PLM\_4.3

Contractor: Tapani Inc.  
Designer: Brown & Caldwell

### Current and Planned Activities:

- Tualatin River Crossing – Tunnel completed and currently installing carrier pipe. Annular space grouting to follow.
- Chicken Creek Crossing - shafts complete, setting up for tunneling to begin in late July
- Constructing pipeline access road along west side of Roy Rogers Road, north of Tualatin River Crossing



Willamette Water Supply  
Our Reliable Water

44

44

## Construction Photos – PLM\_4.3

Roy Rogers Road at Chicken Creek.  
Constructing tunnel shafts.



Willamette Water Supply  
*Our Reliable Water*

45

## Construction Photos – PLM\_4.3

Chicken Creek Launch  
Shaft Site



Willamette Water Supply  
*Our Reliable Water*

46



## Construction Photos – PLM\_4.3

Chicken Creek Crossing  
MTBM arriving on site

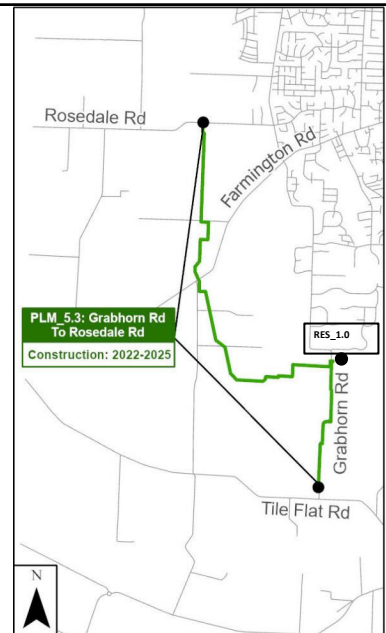


## RES\_1.0 / PLM\_5.3

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

### Current and Planned Activities:

- RES\_1.0
  - Reservoir concrete floor slab complete
  - Reservoir wall footing rebar, seismic cables, concrete pours
  - Reservoir: start building wall forms
  - East Valve Vault walls and roof concrete pours complete
  - Flowmeter Vault wall pours complete, form and rebar for roof deck
  - Start installation of 4-inch, 8-inch and 12-inch ductile iron yard pipe
  - Water Quality Building: installation of underground utility conduits
- PLM\_5.3
  - Continue installation of 66" waterline – approximately 17,500 LF (87%) installed
  - Continue installation of 66" waterline trench cut-off walls, cathodic protection systems & restoration



## Construction Photos – RES\_1.0

Section 9 – Reservoir floor pours complete



Willamette Water Supply  
*Our Reliable Water*

49

## Construction Photos – RES\_1.0

Section 1 – Reservoir wall footer rebar & seismic cable installation



Willamette Water Supply  
*Our Reliable Water*

50

# Construction Photos – PLM\_5.3

66" waterline installation along Grabhorn Road



Willamette Water Supply  
*Our Reliable Water*

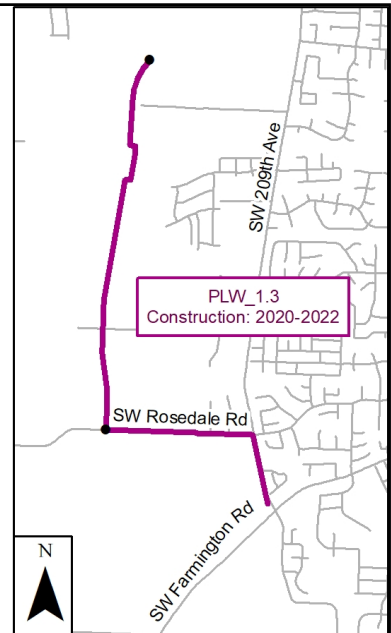
51

# PLW\_1.3

Contractor: Tapani, Inc.  
Designer: Kennedy/Jenks

## Current and Planned Activities:

- Punchlist
- Add power to Butternut Creek turnout site
- Closeout



Willamette Water Supply  
*Our Reliable Water*

52

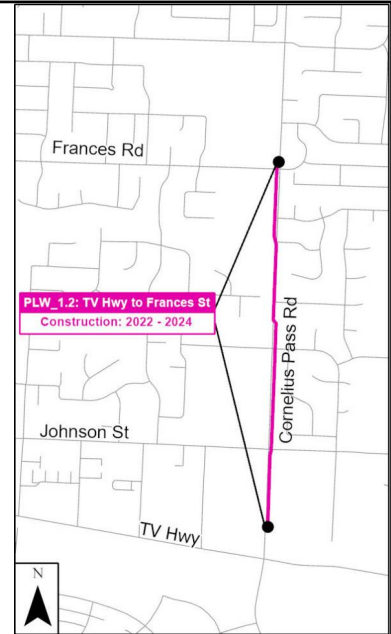
52

## PLW\_1.2

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

### Current and Planned Activities:

- Reedville Park Turnout vault and piping installation
- Pressure test and disinfect 18" waterline on Frances Street
- Cornelius Pass Road base paving



53

## Construction Photos – PLW\_1.2

Connection of 48" waterline to PLW\_1.1



54

## Construction Photos – PLW\_1.2

Installation of terminal boards for 48" waterline cathodic protection



Willamette Water Supply  
*Our Reliable Water*

55

## Construction Photos – PLW\_1.2

Precast vault installation at Frances Steet turnout



Willamette Water Supply  
*Our Reliable Water*

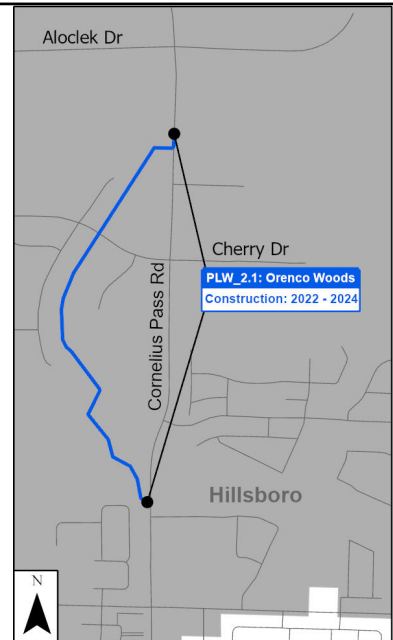
56

# PLW\_2.1

Contractor: Moore Excavation, Inc.  
 Designer: Kennedy/Jenks

## Current and Planned Activities:

- Continue mobilization
- Orenco Woods Nature Park construction entrance
- Temporary Rock Creek diversion
- 48" waterline installation within Orenco Woods Nature Park
- Trenchless crossing underneath TriMet Light Rail



57

# Construction Photos – PLW\_2.1

Construction trailers arrive at staging area



58

## Construction Photos – PLW\_2.1

Erosion control installed within Orenco Woods Nature Park

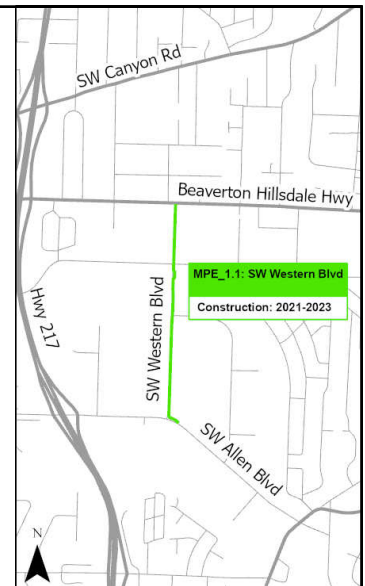


## MPE\_1.1

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

### Current and Planned Activities:

- Final paving of Western Avenue completed
- Striping, final signage and ADA ramps
- Street lighting and traffic signal poles at 5<sup>th</sup> and Allen intersections
- WWSP punch list and closeout for partial substantial completion



## Construction Photos – MPE\_1.1

Final paving and landscaping on Western Avenue



Willamette Water Supply  
*Our Reliable Water*

61

## Construction Photos – MPE\_1.1

New sidewalks, signal cabinets and landscaping in place at Western / Allen intersection



Willamette Water Supply  
*Our Reliable Water*

62



# MPE\_1.2

Contractor: Emery & Sons  
 Designer: Brown & Caldwell

## Current and Planned Activities:

- 16" CoB and 24" WWSP waterlines open cut installation on Hall Blvd. (nights)
- 48" waterline and appurtenances on Allen Blvd.
- 48" waterline appurtenances near lower Fanno Creek
- PFC building roof and pond
- Pavement restoration



63

# Construction Photos – MPE\_1.2

PFC Building CMU walls and steel trusses



64

## Construction Photos – MPE\_1.2

48-inch waterline installation on Allen Blvd.



Willamette Water Supply  
Our Reliable Water

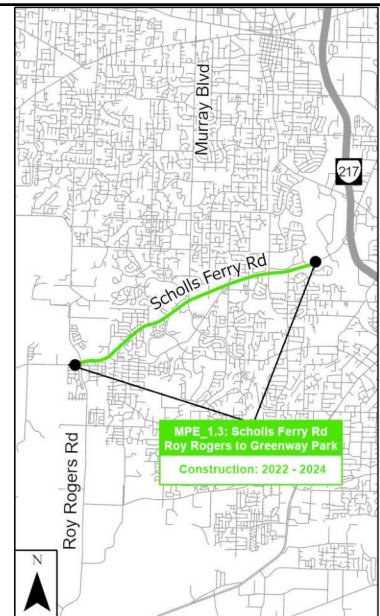
65

## MPE\_1.3

Contractor: Emery & Sons  
Designer: Brown & Caldwell

### Current and Planned Activities:

- 48" waterline installation on Scholls Ferry Road headed west near 125<sup>th</sup> Avenue (night work)
- PGE relocation at Conestoga Road
- Turnout vault at Roy Rogers Road – concrete formwork and rebar



Willamette Water Supply  
Our Reliable Water

66

66

## Construction Photos – MPE\_1.3

Scholls Ferry Rd. traffic control for waterline installation at 125<sup>th</sup> Avenue



Willamette Water Supply  
*Our Reliable Water*

67

## Construction Photos – MPE\_1.3

48" waterline installation at 125<sup>th</sup> Avenue intersection



Willamette Water Supply  
*Our Reliable Water*

68

**QUESTIONS?**

Willamette Water Supply  
*Our Reliable Water*

69