



TUALATIN VALLEY
WATER DISTRICT

Board Work Session Minutes

March 5, 2024

WORK SESSION – 6:00 PM

CALL TO ORDER

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

Staff Present: Paul Matthews, Chief Executive Officer; Clark Balfour, General Counsel; Justin Carlton, Chief Financial Officer; Pete Boone, PE, Chief Operating Officer; Dave Kraska, PE, Water Supply Program Director; Kylie Bayer, Human Resources Director; Andrew Carlstrom, Customer Service Director; Justin Dyke, Communications Director; Tim Boylan, IT Services Director; and Sam Kaufmann, District Recorder.

ANNOUNCEMENTS

Paul Matthews presented the Chief Executive Officer announcements.

DISCUSSION ITEMS

- A. Willamette Water Supply System Commission Update. *Staff Report – Dave Kraska, PE, Willamette Water Supply Program Director.*

Dave Kraska, PE, gave his update on the Willamette Water Supply System Commission.

- B. TVWD Water Supply Integration Planning. *Staff Report – Pete Boone, PE, Chief Operating Officer; Tara Vanderwey, Senior Water Quality Specialist.*

Pete Boone introduced the TVWD Water Supply Integration presentation. Tara Vanderwey gave her presentation on the TVWD Water Supply Integration plan.

Commissioner Lisac asked to see a map representing the number of customers within each project phase.

- C. TVWD Water Supply Integration Communications. *Staff Report – Justin Dyke, Communications Director*

Justin Dyke gave his presentation on the TVWD Water Supply Integration Communications plan.

Commissioner Doane asked staff to communicate the improvements the TVWD Willamette Water Supply System will provide to TVWD customers.

Commissioner Sanders asked staff to investigate customer feedback from the City of Wilsonville regarding the City's Willamette water supply.

ADJOURNMENT

There being no further business, President Sanders adjourned the meeting at 7:30 PM

Todd Sanders, President

Jim Doane, Secretary



CHIEF FINANCIAL OFFICER NAMED

Process Highlights

- National search with attractive job announcement
- Received nearly 50 applications from across the country
- Narrowed the pool to 10 highly qualified prospects
- Panel from Leadership Team conducted phone interviews to narrow the pool to 3 candidates
- Conducted two-panel interviews to recommend finalist to the CEO
- CEO concurred with the panels' recommendations
- New CFO accepted the position and is now filling other vacancies within the Finance Department



WIFIA LOAN UPDATE

- Final submittal for TVWD of eligible project costs (EPC) for the WWSP
- The District submitted 47 EPCs for both TVWD and the City of Hillsboro totaling \$629.3 million
- The District's total is \$387.7 million.
- The City of Hillsboro will reach their total loan value of \$250.5 million with EPC 48.



CEO SCHEDULE UPDATE

- I am planning to attend AMWA's Water Policy Conference and meeting with legislators in Washington, D.C. during the week of March 18.
- During that time, Customer Service Director Andrew Carlstrom will serve as Acting in Capacity for the CEO.
- I will attend the March 20th regular meeting virtually.



BOARD COMMUNICATIONS LOG

There were no updates to the Board Communications Log this month.



Willamette Water Supply
Our Reliable Water

**Willamette Water Supply System Commission
Update**

**TVWD Board Work Session
March 5, 2024**

5

Outline

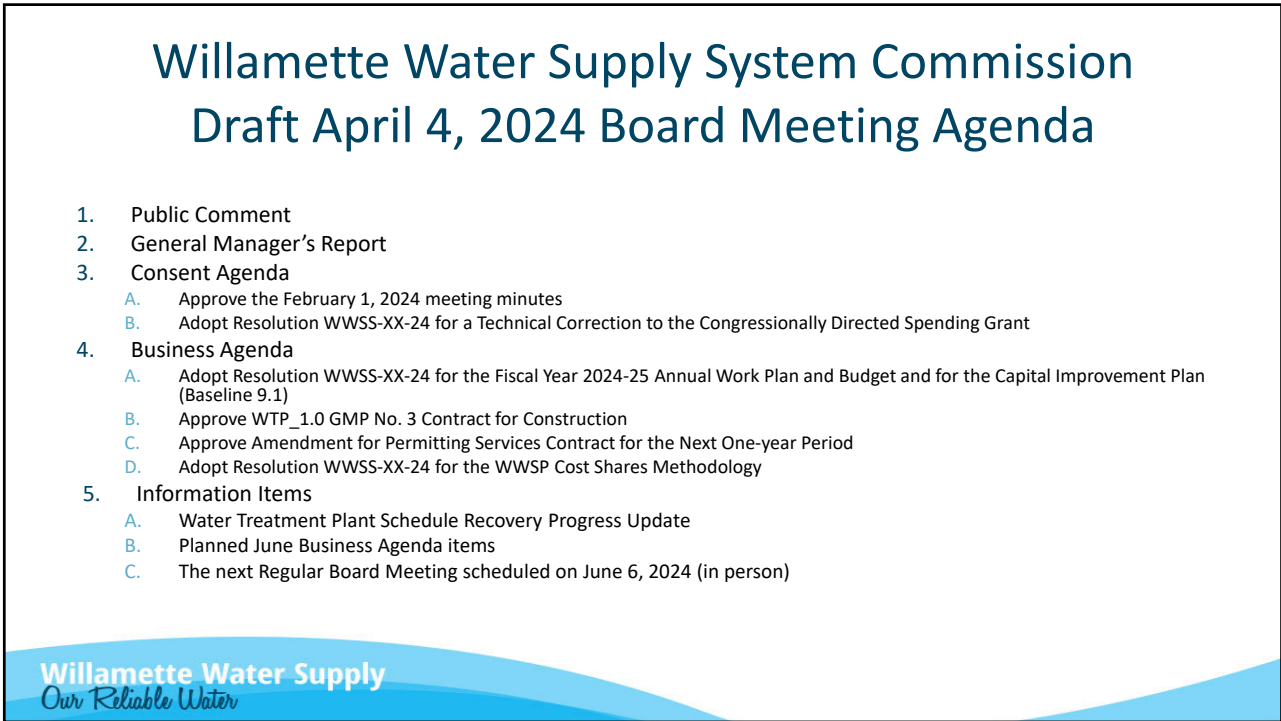
**Review Draft April WWSS Commission
Board Meeting Agenda** → **WWSP Construction Update**

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6



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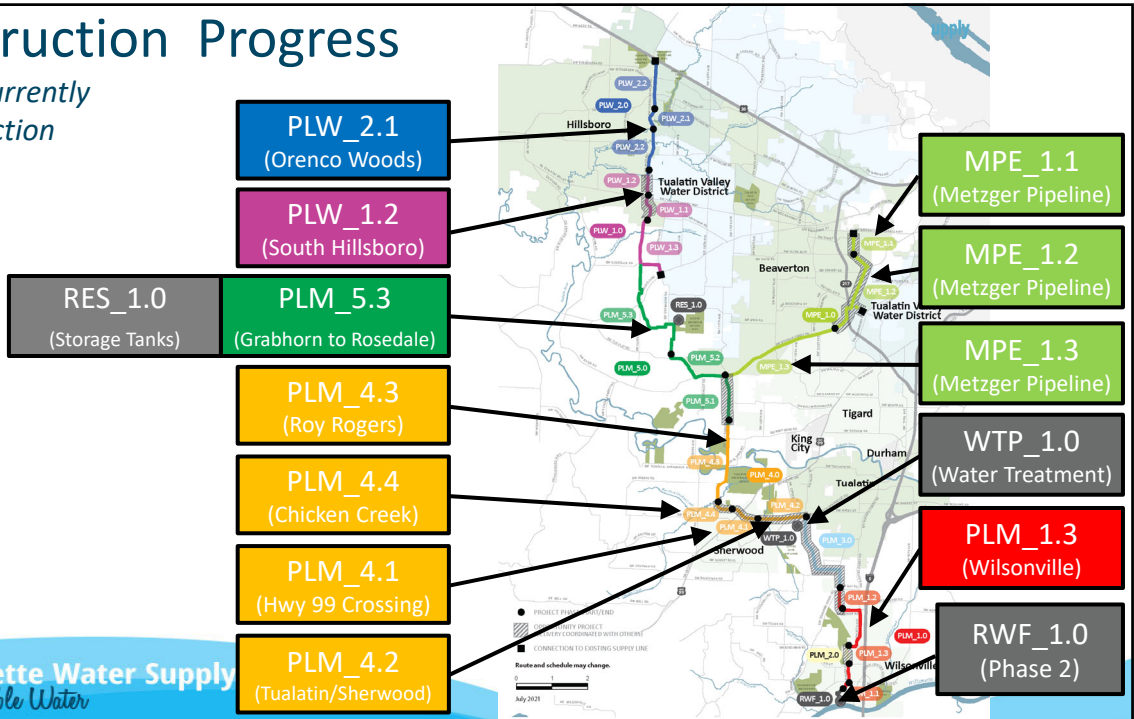
WWSP CONSTRUCTION UPDATES

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Our Reliable Water

9

Construction Progress

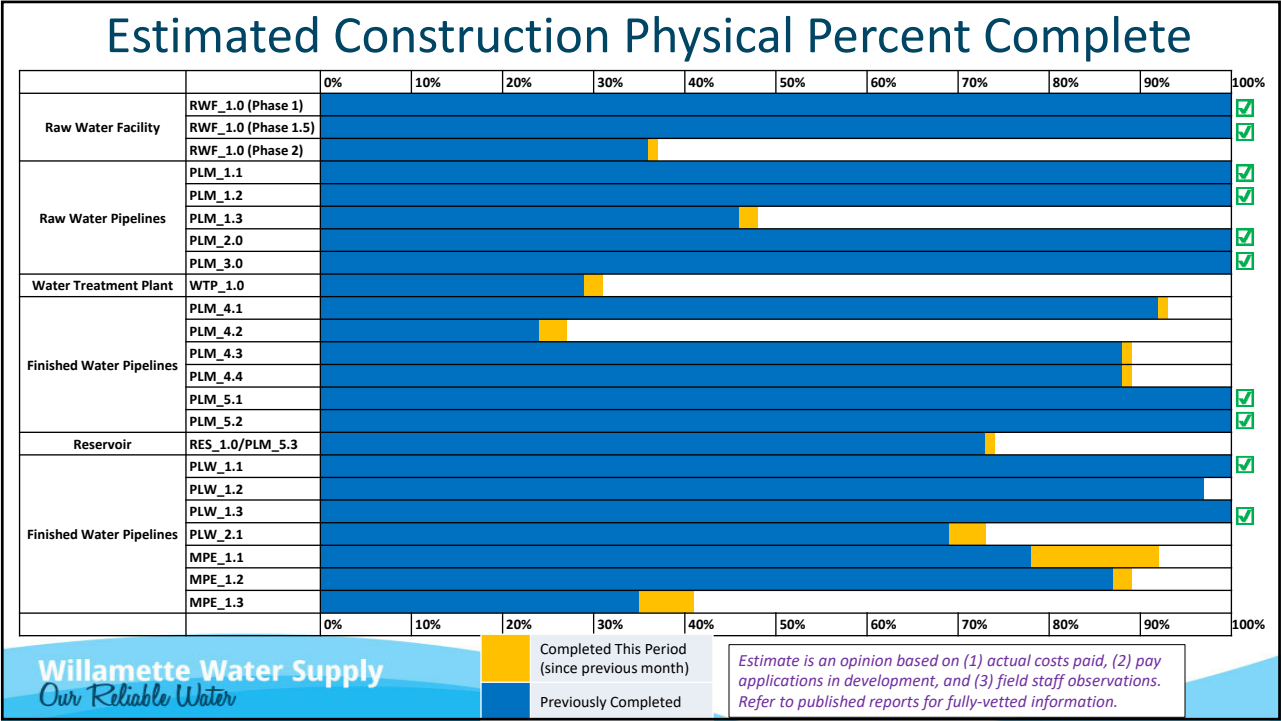
Projects currently in construction



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10

5



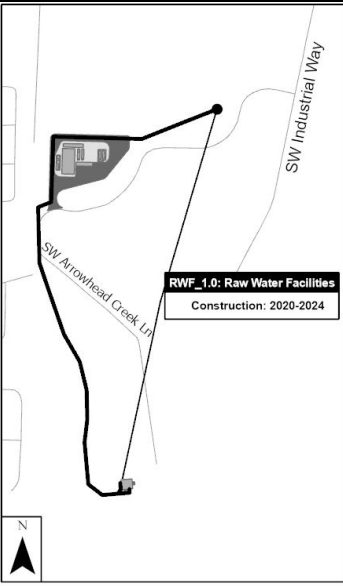
11


RWF_1.0 (GMP-2)

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

Current and Planned Activities:

- Exterior and interior HVAC systems
- Interior mechanical, electrical, and plumbing systems
- Interior painting, flooring, wall sheetrock, and ceilings
- Upper site perimeter wall – stone veneer and steel pickets.
- Main entrance gate posts and foundations
- New 24" piping at east side of RWPS (for two new pumps)
- PGE began 1.5 MW electrical feeder project





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12

Construction Photos – RWF_1.0 (GMP-2)



13

Construction Photos – RWF_1.0 (GMP-2)

PGE contractor installing
conduit for new electrical
service



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14

Construction Photos – RWF_GMP-2.0

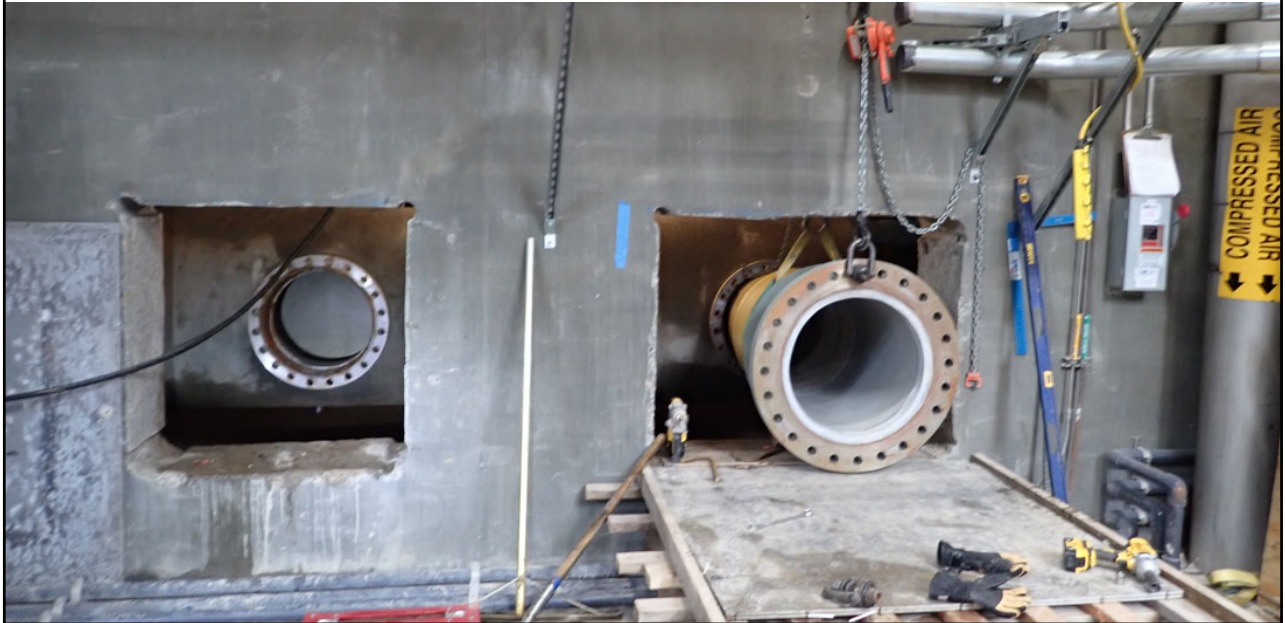
New electrical gear installations at interior of USEB



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15

Construction Photos – RWF_GMP-2.0



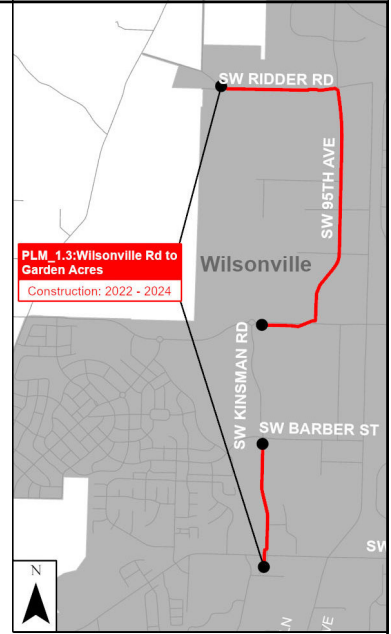
16

PLM_1.3

Contractor: Moore Excavation Inc.
Designer: HDR

Current and Planned Activities:

- Completed temporary paving on 95th Ave to allow 2-way traffic
- Completed tunneling casing under railroad tracks at Boeckman Rd. (270 LF trenchless crossing)
- Approximately 7,280 LF of 66" waterline installed (59% of total)
- Installed cathodic protection and appurtenances on Kinsman Rd.
- Began tree clearing for City of Wilsonville road projects (Schedule B)



Construction Photos - PLM_1.3

Tunneling head breaking out at receiving shaft at corner of SW Boeckman Rd. and SW 95th Ave.



Construction Photos - PLM_1.3

Tree clearing on Kinsman Rd. in advance of turn lane construction for City of Wilsonville.



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19

Construction Photos - PLM_1.3

Type II CARV vault installation on Kinsman Rd.



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20

10

Construction Photos - PLM_1.3

Temporary asphalt paving on SW 95th Ave.



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02/05/2024 11:32

21

WTP_1.0

Contractor: Sundt Construction, Inc.
Designer: CDM Smith

Current and Planned Activities:

- Area 03 (Site Work): 66" RAW and 66" ARW pipe continues.
- Area 08 (Admin Building): Under-slab pipe and electrical.
- Area 22 (Flash Mix): Continued concrete walls.
- Area 25 (Ozone Generation): Under-slab piping and electrical.
- Area 26 (Ozone Contactor) Under-slab piping and electrical.
- Area 28 (Filters): Building upper gullet walls.
- Area 30 (UV): Structural steel framing and roof decking.
- Area 34 (Chemical Building): Installing chemical-resistant coatings on tank pads.
- Area 35 (Clearwell): Constructing shoring for roof slab construction.
- Area 37 (EQ basin): Slide gate testing and exterior wall damp-proofing.
- Area 40 (Thickeners): Installing 24" TKD piping.
- Area 52 (Thickened Sludge PS): Placed elevated concrete slab.
- Area 53 (FWPS): Continue backfilling exterior in coordination with yard piping.



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11

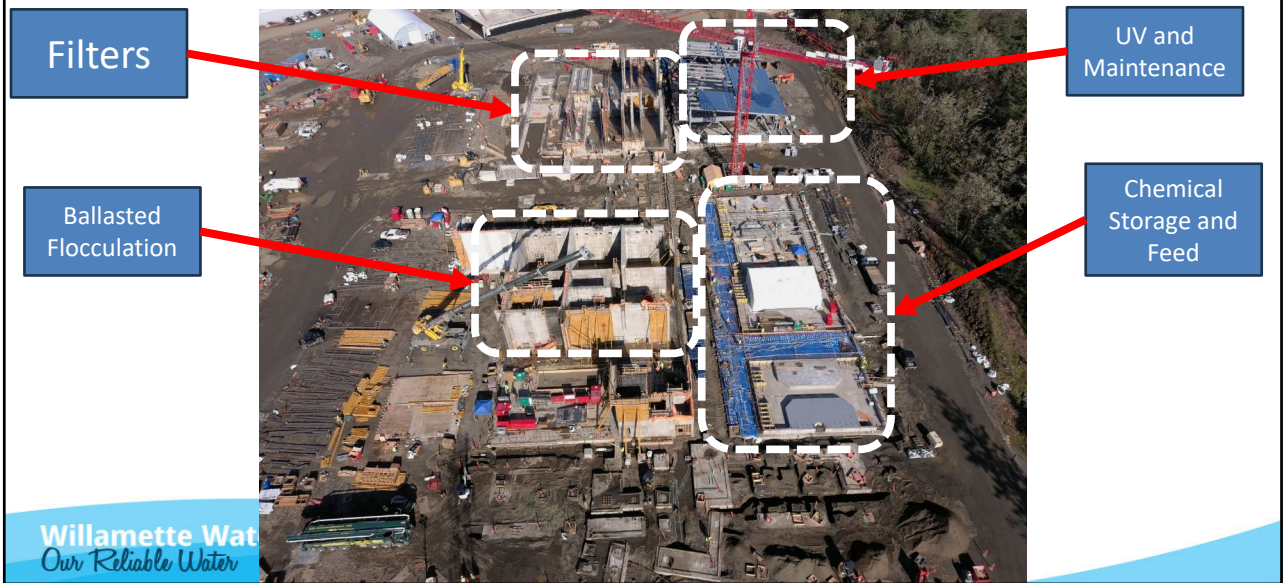
22

Construction Photos - WTP_1.0



23

Construction Photos - WTP_1.0



24

Construction Photos - WTP_1.0

Solids process area – Gravity Thickeners and Thickened Sludge Pump Station



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25

Construction Photos - WTP 1.0



26

13

Construction Photos – PLM_4.2

Preparing for annular space grouting at receiving shaft of 124th Ave trenchless crossing



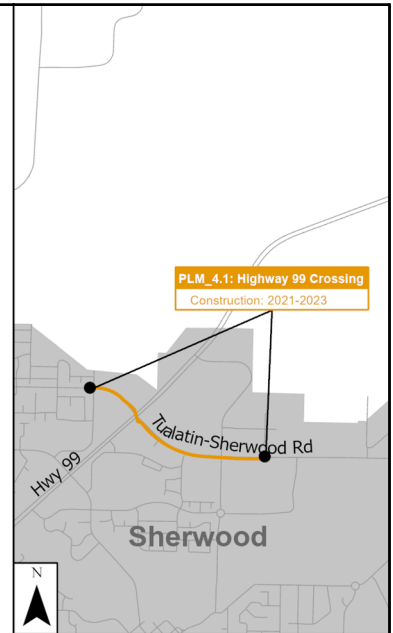
29

PLM_4.1

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

Current and Planned Activities:

- Completed cathodic protection system installation and activation
- Began preliminary deficiency list corrective work
- Continued road-related scope for Washington County



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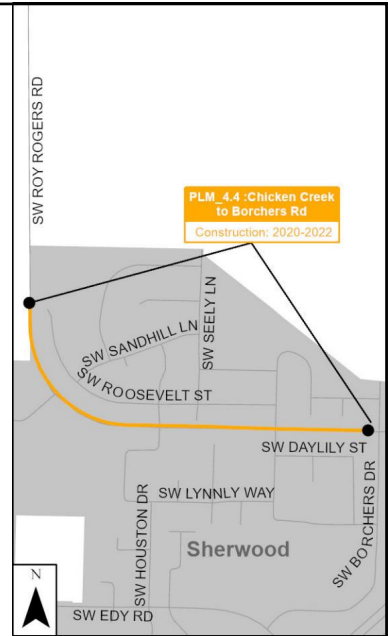
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PLM_4.4

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

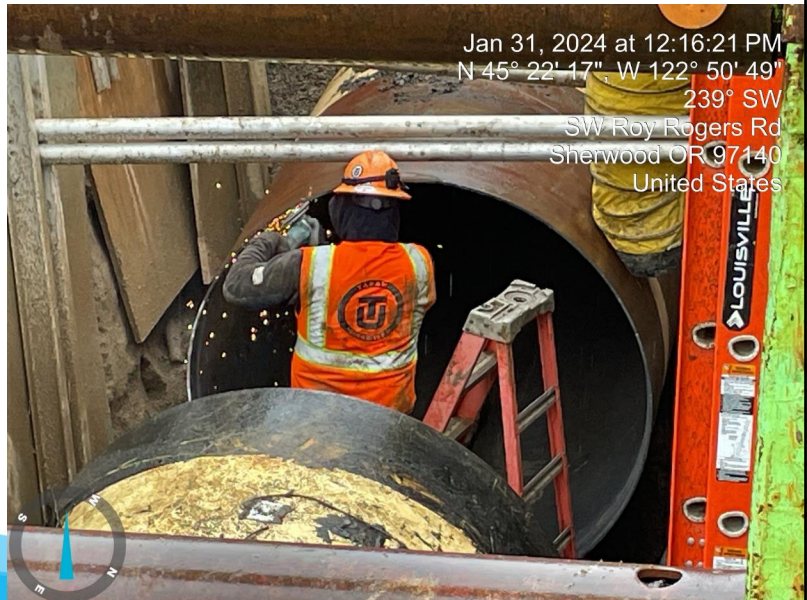
Current and Planned Activities:

- Completed tie-in to PLM_4.1
- Continued road-related work for Washington County
- Preparing to begin sewer forcemain work for CWS



Construction Photos – PLM_4.4

Preparing for connection of
PLM_4.1 to PLM_4.4

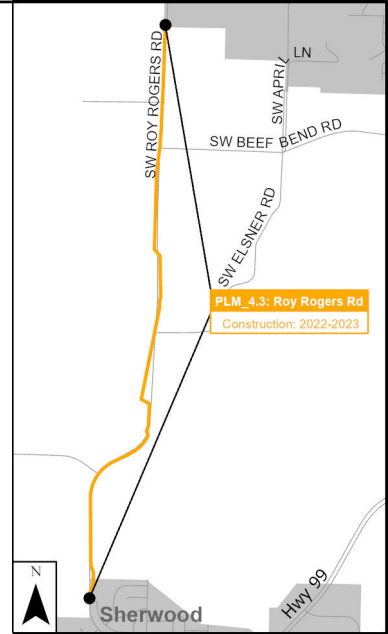


PLM_4.3

Contractor: Tapani Inc.
Designer: Brown & Caldwell

Current and Planned Activities:

- Completed open cut crossing of Roy Rogers Rd. (24-hour operation during weekend road closure)
- Continue installing 66-inch waterline on west side of Roy Rogers Rd. toward Tualatin River launch shaft
- Approximately 12,300 LF of pipe installed (93% of total)



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33

Construction Photos – PLM_4.3

66" waterline installation
across Roy Rogers Rd.
(weekend road closure)



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34

Construction Photos – PLM_4.3

Anode installation for cathodic protection system



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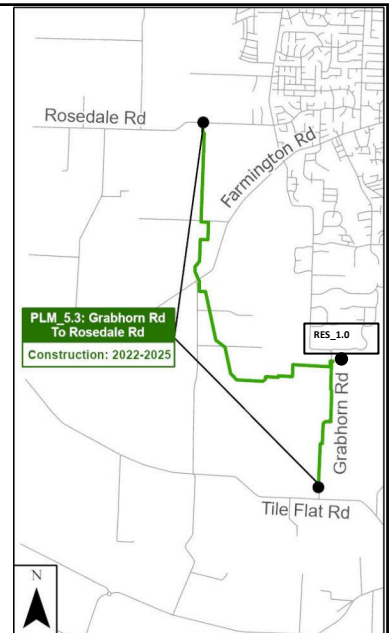
35

RES_1.0 / PLM_5.3

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

Current and Planned Activities:

- RES_1.0
 - Mobilization of DN Tanks to begin prestressing operation
 - Reservoir roof concrete complete; removing falsework
 - Meter vault and valve vault mechanical work
 - Continued electrical duct bank and yard piping installation
 - Continued roof construction on Water Quality Building
- PLM_5.3
 - Completed tie-in to PLM_5.2
 - Continued appurtenance installations
 - Continued easement restoration in multiple locations



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36

Construction Photos – RES_1.0

Reservoir site



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37

Construction Photos – RES_1.0

Reservoir concrete roof installation complete. Water Quality Bldg. under construction



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38

19

Construction Photos – PLM_5.3

Topsoil replacement and restoration at Farmington Gardens property



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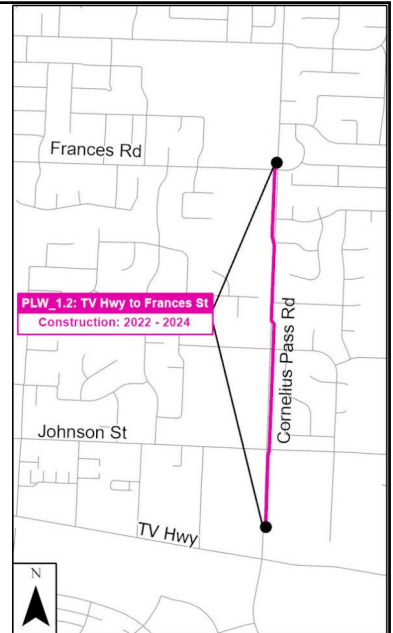
39

PLW_1.2

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

Current and Planned Activities:

- Final restoration of Reedville Creek Park
- Deficiency list items
- Closeout



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40

20

Construction Photos – PLW_1.2

Final site restoration at Reedville Creek Park



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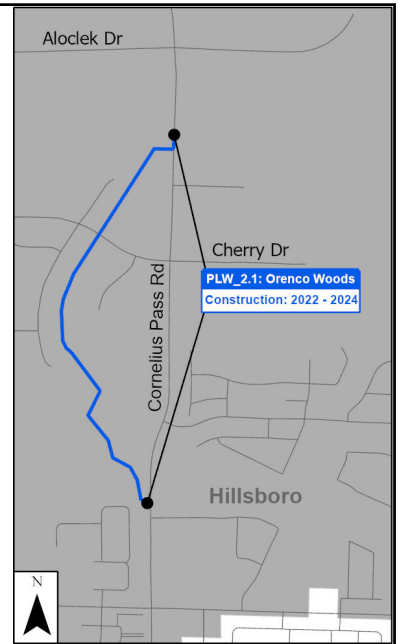
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PLW_2.1

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

Current and Planned Activities:

- Completed 48" waterline installation
- Continued appurtenance and precast vault installation
- Began cathodic protection system installation
- Preparing for interior cleaning and joint grouting



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42

21

Construction Photos – PLW_2.1

Final piece of 48" waterline installation at north end of alignment in Cornelius Pass Rd.



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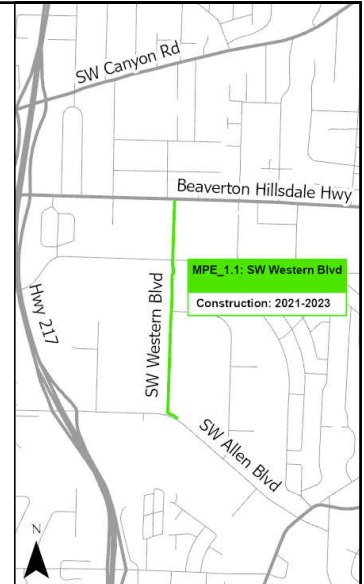
43

MPE_1.1

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

Current and Planned Activities:

- Installed new 48-inch waterline and connected to existing 54-inch WCSL at Beaverton-Hillsdale Hwy. and Western Ave.
- Installed two new butterfly valves and pressure tested
- Began tie-in work at Beaverton-Hillsdale Hwy. and 96th Ave. with new 48-inch pipe and butterfly valve.



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44

Construction Photos – MPE_1.1

Cut-in to WCSL at 96th Ave. and
Beaverton-Hillsdale Hwy.



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45

Construction Photos – MPE_1.1

Cut-in to WCSL at Western Ave.
and Beaverton-Hillsdale Hwy.



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46

MPE_1.2

Contractor: Emery & Sons
Designer: Brown & Caldwell

Current and Planned Activities:

- Completed first trenchless crossing at Upper Fanno Creek, began second trenchless drive
- Continued PFC building mechanical, HVAC, electrical
- Connections to existing 24" and 16" waterlines on Oleson Rd.
- 48-inch open cut waterline installation on Scholls Ferry Rd. near Allen Blvd.



Construction Photos – MPE_1.2

Upper Fanno Creek trenchless crossing site

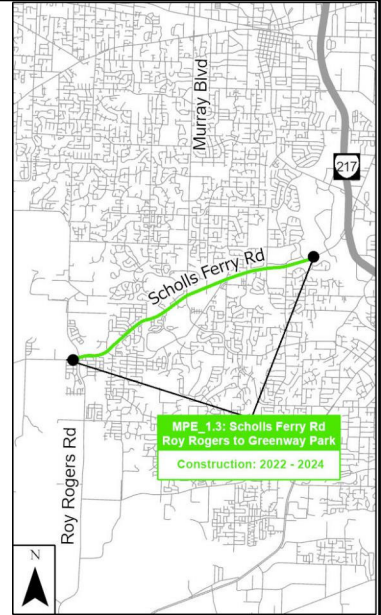


MPE_1.3

Contractor: Emery & Sons
Designer: Brown & Caldwell

Current and Planned Activities:

- 48" waterline installation on Scholls Ferry Rd.
 - Heading west near 135th Ave. (night work)
 - Heading east near Roy Rogers Rd. (day work)
- Barrows Rd. Sewer Relocation
- Roy Rogers Road Turnout Vault
- PGE relocations



Construction Photos – MPE_1.3

48-inch waterline installation on Scholls Ferry Rd. near Roy Rogers Rd. (daytime crew)



Construction Photos – MPE_1.3

48-inch waterline
installation on Scholls
Ferry Rd. near Davies Rd.
(nighttime crew)



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51

QUESTIONS?

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52

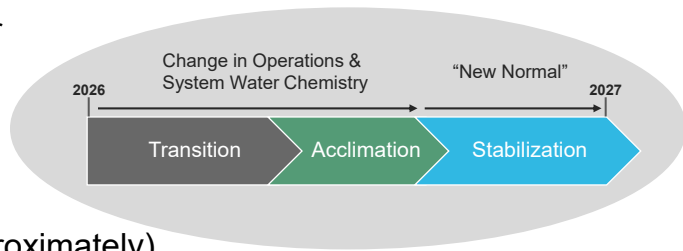
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53

WHAT IS WATER SUPPLY INTEGRATION (WSI)?

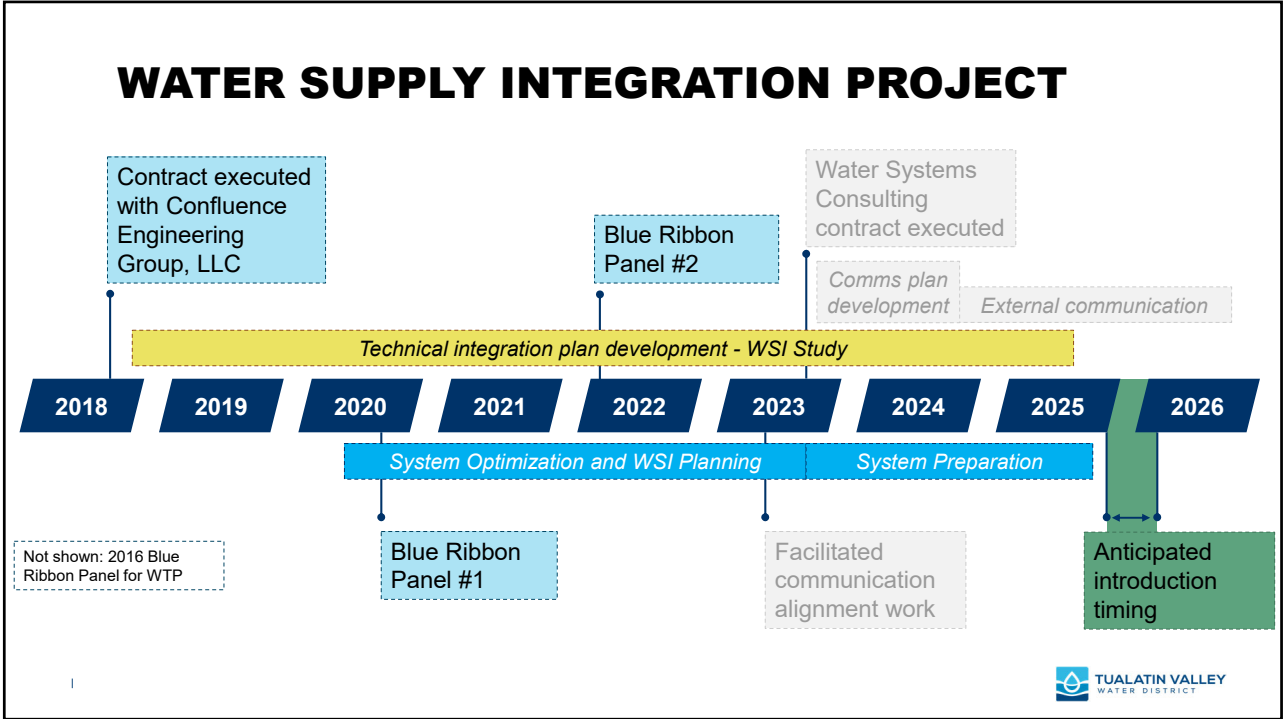
- WSI is the operational and water chemistry process of integrating the WWSS source into the TVWD distribution system



- WSI is a year long process (approximately)
- WSI is not Commissioning and Start Up (CSU)
- WSI will affect all partners – TVWD/COH/COB – biggest change is for TVWD

54 |

54




55

CHANGING SUPPLY AND OPERATIONS IS A RISK

A new source is a major adjustment for any system

- **If it goes poorly:**
 - » Dirty water over several months
 - » Thousands of customer calls
 - » Unfavorable media coverage
 - » Tarnished reputation and trust
- **We won't let it go poorly:**
 - » 6 years of WSI planning (so far)
 - » We understand our system and risks involved
 - » Perception of Willamette raises the bar on preparation and communication



TUALATIN VALLEY WATER DISTRICT

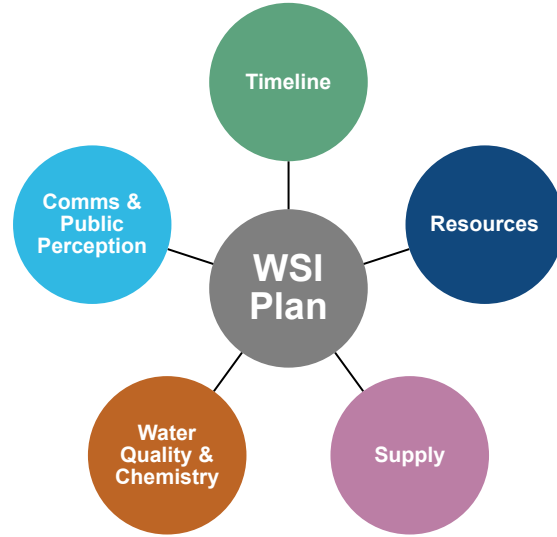
56

WHAT ARE WE DOING ABOUT IT?

- **Developed WSI Plan**
 - » Integration “playbook”
 - » Operationally focused

- **Framework for WSI Plan**
 - » WSI Study recommendations
 - » Blue Ribbon Panel findings
 - » Commissioning and Startup Plan

- **Other considerations**
 - » Contractual obligations
 - » Adaptability and flexibility
 - » Industry best practices

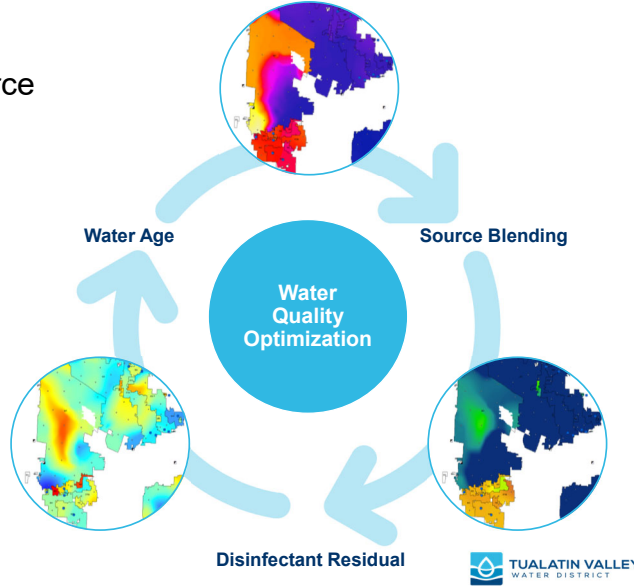


WSI Plan Development



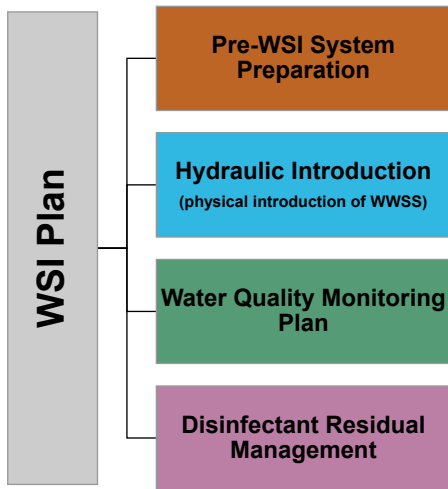
WATER QUALITY OPTIMIZATION TASKFORCE

- Foundational work for developing approach to integration of new source
- Real-world data and modeling supported what we knew about the system
- Provided new insights into system dynamics
- Removed silos and promoted collaboration among staff



59

WSI INTRO PLAN COMPONENTS

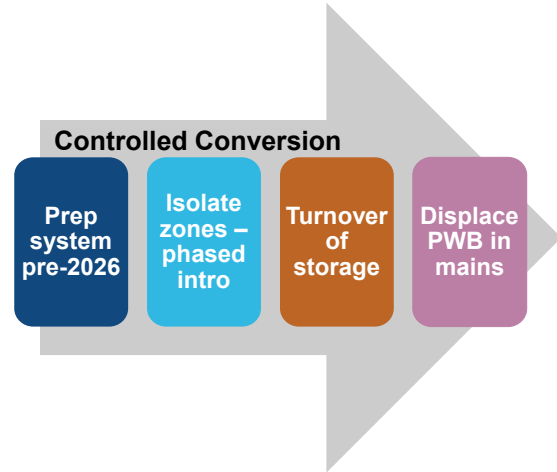


- Goal is risk reduction
- Plan development 75% complete and written draft is in progress
- Contingencies and mitigations for Hydraulic Introduction in development
- Elements of WSI Plan already underway, additional elements will be implemented Q4 2024

60

INTEGRATION STRATEGY IN A NUTSHELL

- **Chloramine Conversion**
 - » Stepwise conversion of system to WWSS/JWC by displacement of PWB
- **Practical conversion approach – tank characteristics determine turnover process**
 - » Empty and fill tanks or keep online and discharge to storm
- **Goal: Rapid and Controlled Conversion**
 - » Minimize magnitude and duration of water quality issues

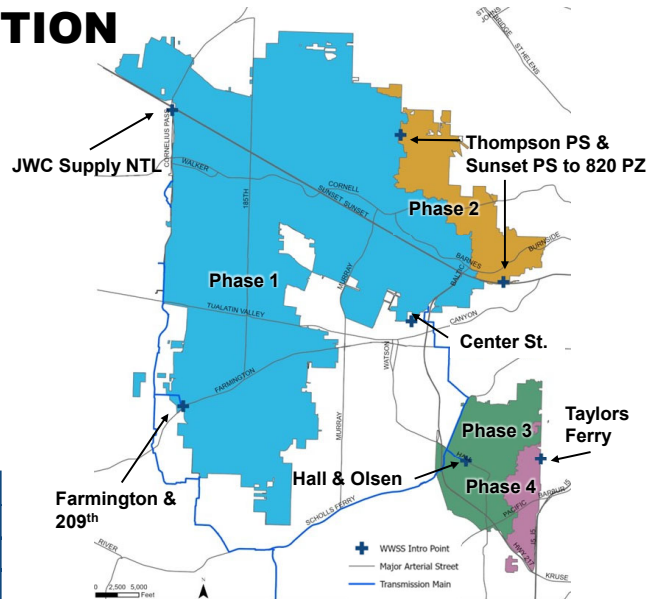


61

2026 WWSS INTRODUCTION

- **Introduction Approach:**
 - » Phased conversion of system
 - » Leverage JWC supply and maximize utilization of WWSS source
 - » TVWD “off” PWB source before PWB contract ends
- **Start date dependent on CSU Plan**

WWSS Introduction Schedule			
Phase	Location	Early Start	Late Start
1	Valley Floor	January	March
2	West Hills	February	April
3	Metzger 426 PZ	March	May
4	Metzger 498 PZ	April	June



62

SUCCESSFUL INTEGRATION IS PRIORITY #1 FOR TVWD – MISSION CRITICAL!

- Phased introduction allows TVWD to maintain current level of service during WSI
- WSI projects require staff and prioritization of work
- Goal is a well informed and positive customer experience!



63 |

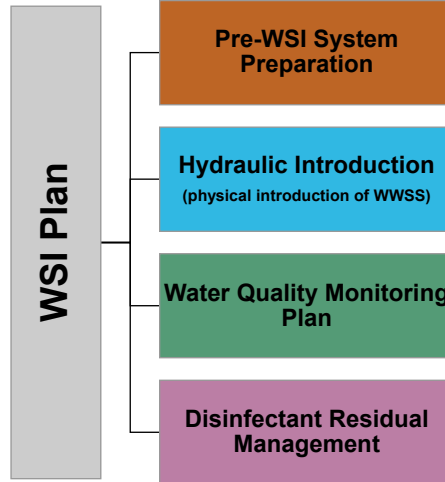


Application of WSI Plan Pre-2026

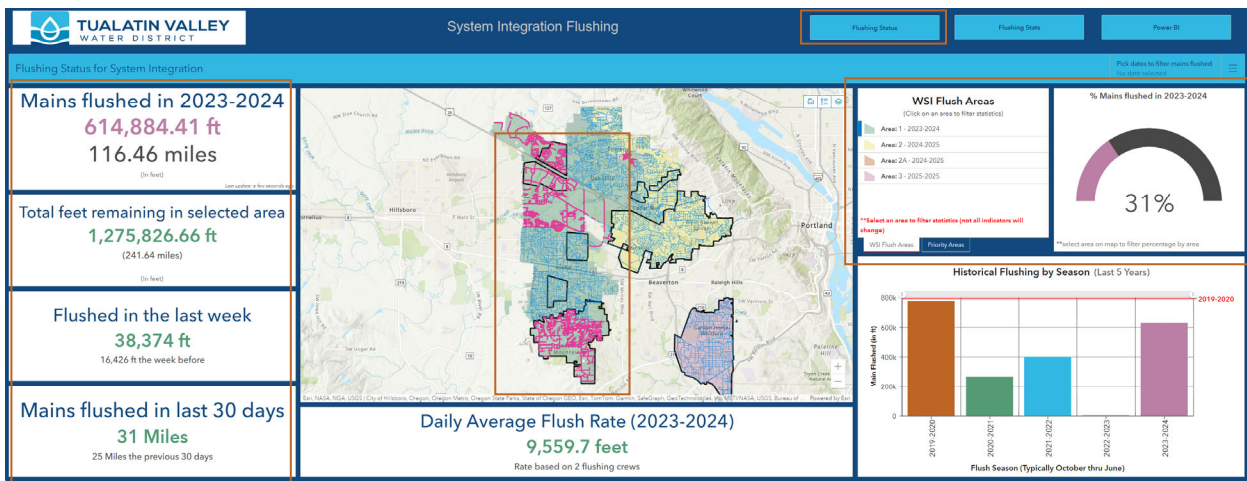


ELEMENTS OF WSI PLAN ALREADY UNDERWAY

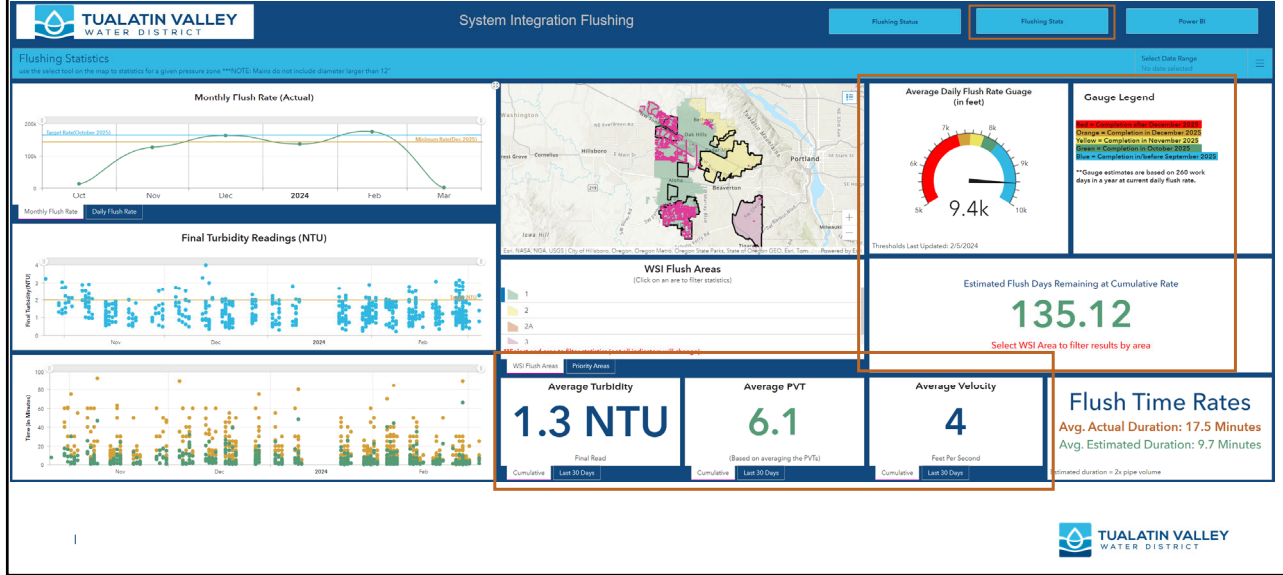
- **Flush entire TVWD system pre-WSI**
 - ✓ On track to be complete Q4 2025 (Sept.)
 - ✓ GIS integrated dashboard tool developed
- **Reservoir discharge SOPs to support WSI**
 - ✓ On track to be complete Q4 2024
- **SCADA upgrades to support WQ data needs**
 - ✓ On track to be complete Q3 2024
- **Disinfectant Residual Management Plan nearly complete**
 - ✓ On track for draft by Q3 2024
 - ✓ Strategies and mitigations identified



TVWD FLUSHING DASHBOARD TOOL

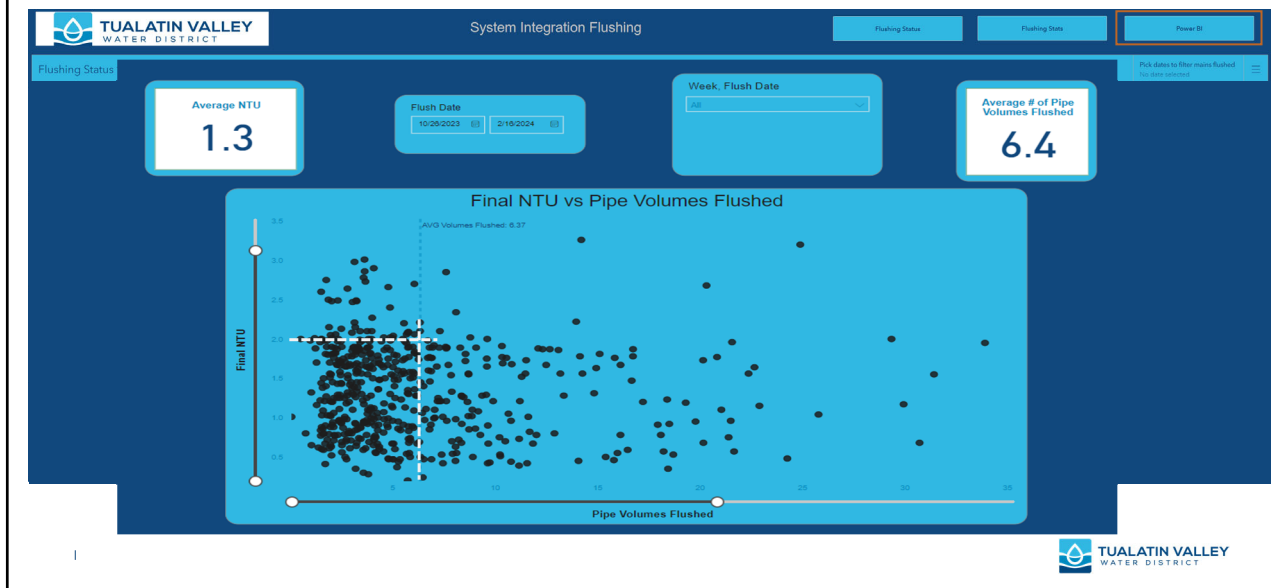


TVWD FLUSHING DASHBOARD TOOL



67

TVWD FLUSHING DASHBOARD TOOL



68

WSI TASKS FOR 2024-2025

- **Practice runs to test planned operational scenarios**
 - » Q2 2024 – re-start of WCSL connection with PWB
 - » Further validation of our models
- **Implementation of systemwide Water Quality Monitoring Plan**
 - » Q2 2024 – pipe tap coupon collection
 - » Q4 2024 – begin baseline WQ monitoring
- **Execute system prep activities**
 - » Continue flushing, tank cleaning/divers



69

 A large circular graphic with a white border containing an aerial photograph of a river winding through a dense forest. The scene is captured at sunrise, with a bright yellow and orange glow on the horizon and the water's surface reflecting the light.

WATER SUPPLY INTEGRATION COMMUNICATIONS

Justin Dyke
March 5, 2024

 The logo for Tualatin Valley Water District, featuring a stylized blue water drop icon to the left of the text "TUALATIN VALLEY WATER DISTRICT" in a sans-serif font.

70

(RE)INTRODUCING OUR TEAM



Justin Dyke
Communications Manager



Frank Reed
Communications Coordinator



New Person
Starting soon!



Priorities to Support Integration



COMMUNICATION OBJECTIVES



1 GROUNDWORK

Prepare for integration across all platforms



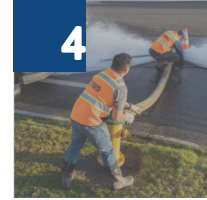
2 PERCEPTION

Increase positive impressions



3 VISIBILITY

Build awareness of efforts to serve our customers

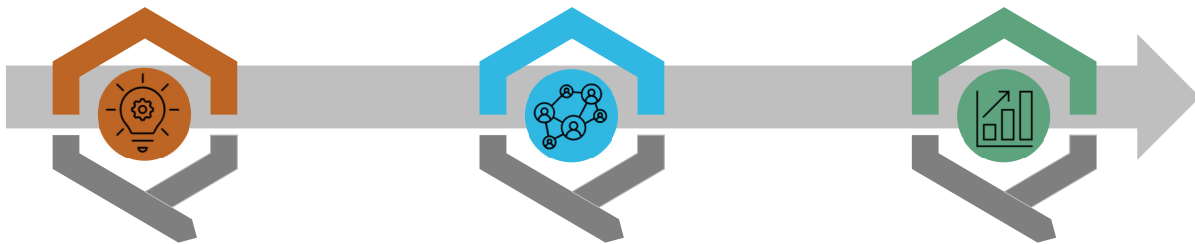


4 MESSAGE

Summer 2024 pre-WSI communication



SUMMER 2024 TVWD CAMPAIGN



Campaign Planning: Q2

- » Set theme, strategy, effectiveness measurement
- » Test and promote key messages

Go Live Timing: Q3-Q4

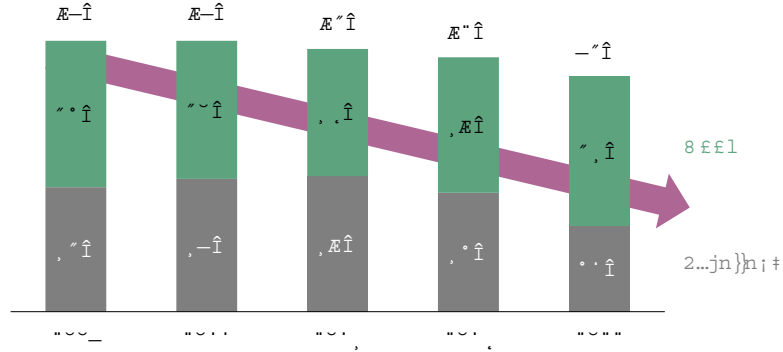
- » Paid/sponsored social media campaigns
- » Traditional advertising or streaming services

Track & Share: Q4 and Beyond

- » Benchmark data for WSI
- » Improve customer impressions ahead of WSI



SLIDING CUSTOMER IMPRESSIONS



Data gathered from DHM Research for Customer Satisfaction Surveys



Water Supply Ingratiation Communications



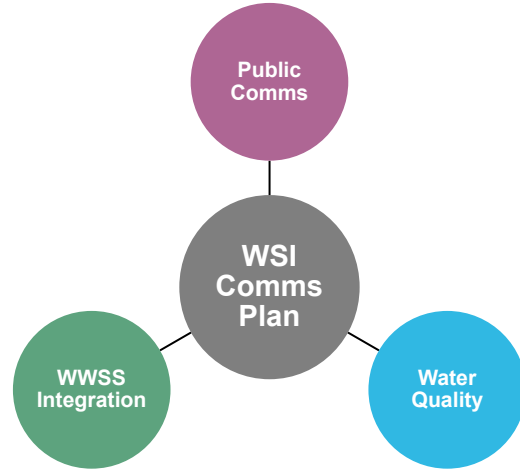
INTEGRATION COMMS CORE TEAM

Daily project management

- Managed by WWSP staff
- TVWD engaged in all activities
- Coordination with technical groups

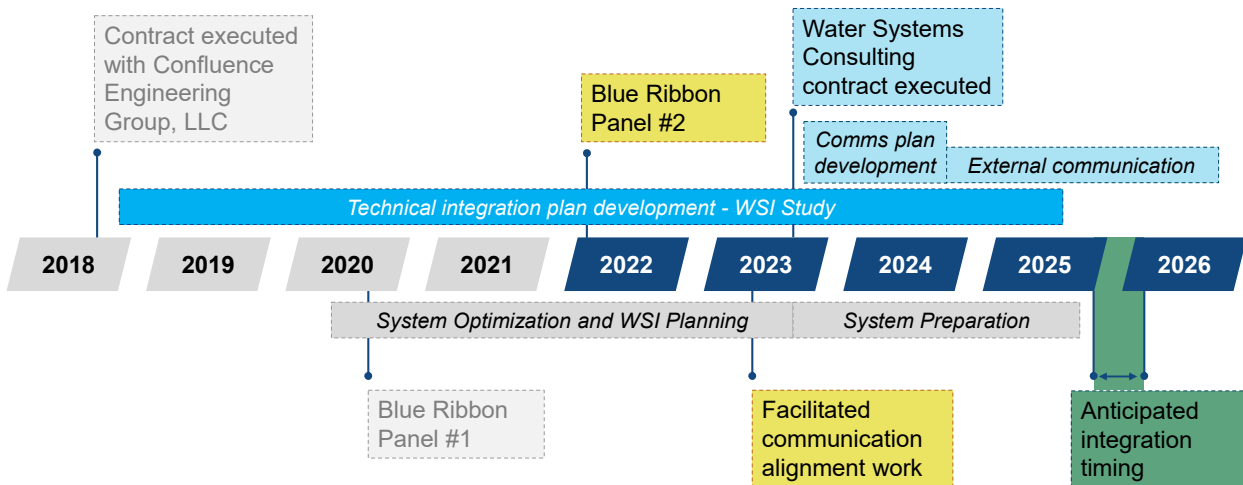
Expanded expertise

- Communications and water quality staff from three partners
- Consultation Water System Consulting and Confluence Engineering
- Guidance of Leadership Team

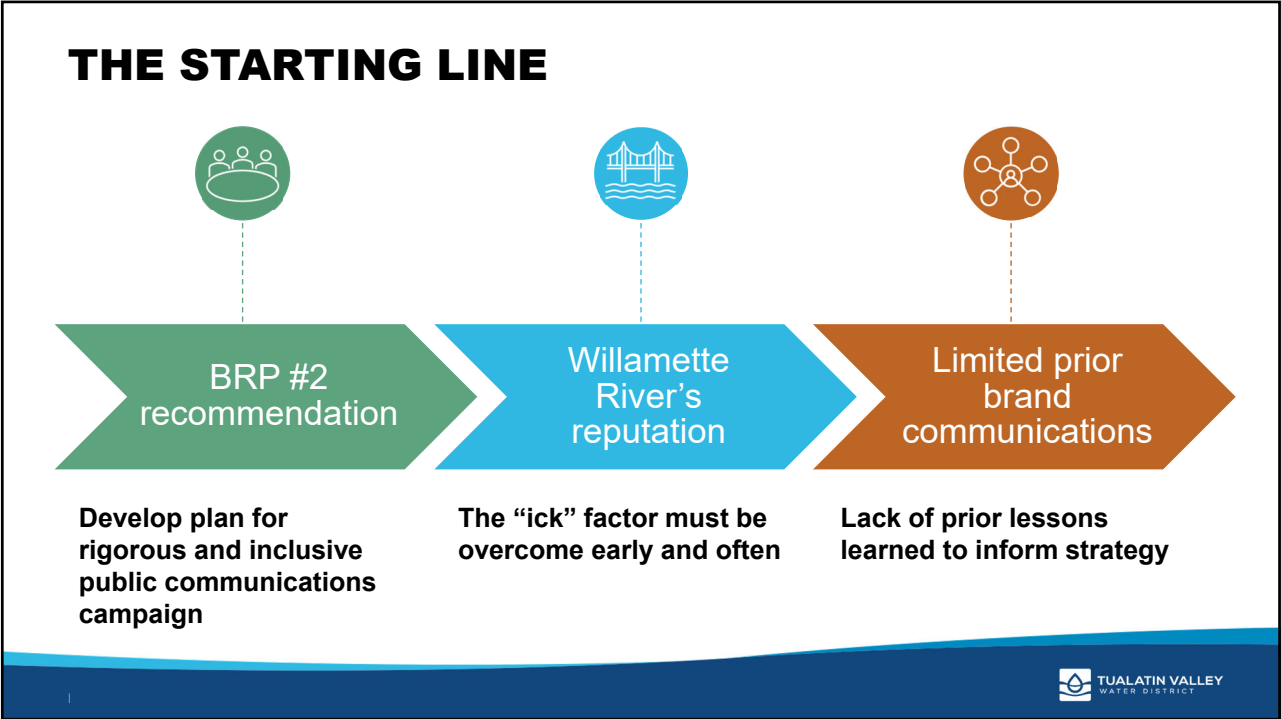


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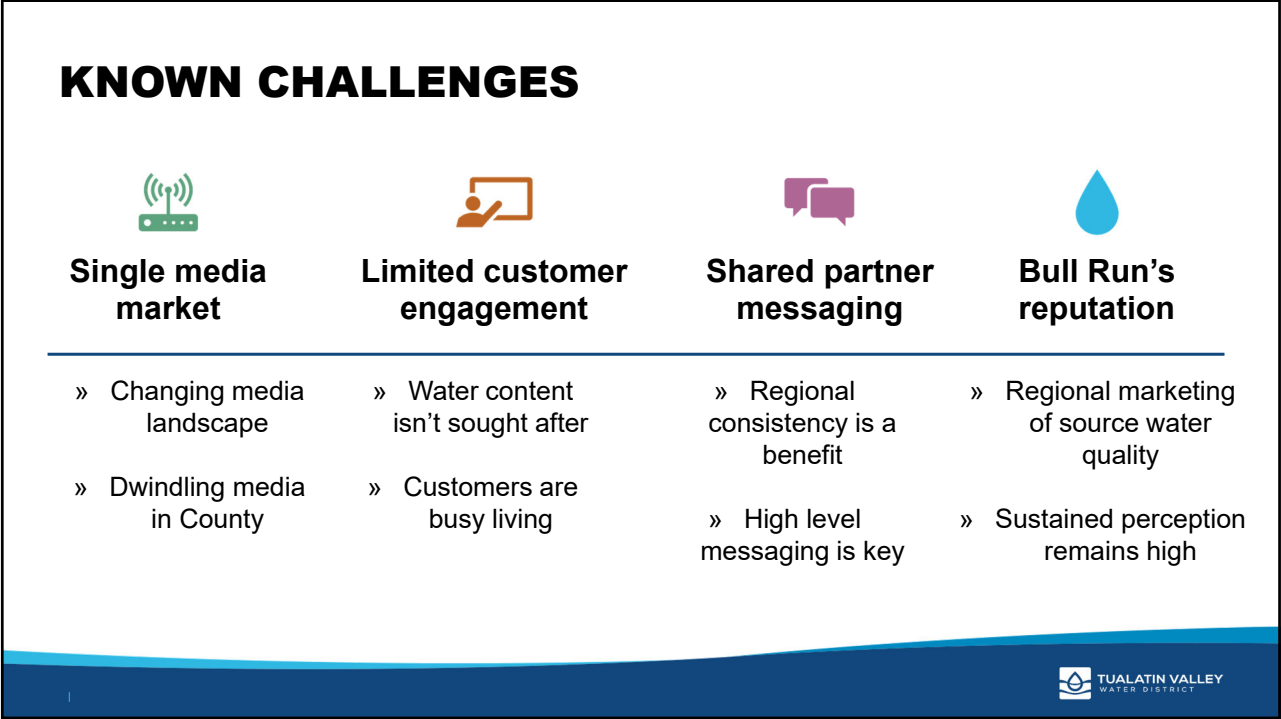
WATER SUPPLY INTEGRATION PROJECT



78



79



80

INTEGRATION COMMUNICATIONS GOALS



81

VALUE OF RESEARCH

Phone survey and focus groups will drive campaign planning

- Messaging meets customers where they are through tools, tactics, and languages
- Campaign materials based on known reactions and responses
- Emphasis on what our customers value



82

41

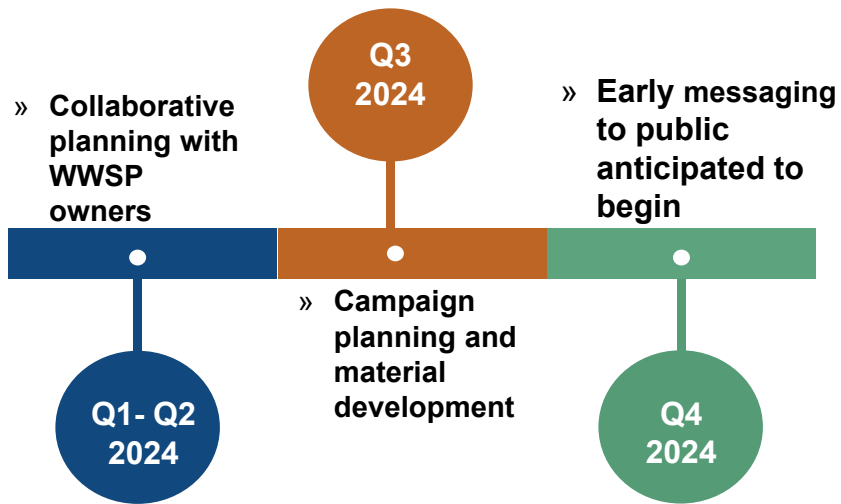
INTEGRATION CURRENT TASK ORDER



This is a regional partnership approach – TVWD, Hillsboro, and Beaverton



TIMING IS EVERYTHING



SUCCESSFUL INTEGRATION IS PRIORITY #1 FOR TVWD – MISSION CRITICAL!

- Coordination among partners creates shared success
- WSI projects require staff prioritization of work
- Goal is a well informed and positive customer experience!



FEEDBACK, QUESTIONS & DISCUSSION

