

# **Willamette Water Supply System Commission**

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**Board Meeting**  
**Thursday, December 7, 2023**  
**12:00 PM**

**Microsoft Teams Meeting**

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**Willamette Water Supply System Commission  
Board Meeting Agenda  
Thursday, December 7, 2023 | 12:00 – 1:30 PM  
Microsoft Teams Meeting**

This meeting will not be held at a physical location. If you wish to attend and need dial-in information, please contact [annette.rehms@tvwd.org](mailto:annette.rehms@tvwd.org) or call 971-222-5957 by 10:00 a.m. on December 7, 2023. If you wish to address the WWSS Board, please request the Public Comment Form and return it 48 hours prior to the day of the meeting. The meeting is accessible to persons with disabilities and those who need qualified bilingual interpreters. A request for an interpreter for the hearing impaired, a bilingual interpreter or for other accommodations should be made at least 72 hours before the meeting to the contact listed above.

**EXECUTIVE SESSION – 11:15 AM**

*An executive session of the Board is called under, ORS 192.660(2)(e) to conduct deliberations with persons designated by the governing body to negotiate real property transactions, ORS 192.660(2)(f) to consider information or records that are exempt by law from public inspection, and ORS 192.660(2)(h) to consult with counsel concerning the legal rights and duties of a public body with regard to current litigation or litigation likely to be filed.*

**REGULAR SESSION – 12:00 PM**

**CALL TO ORDER**

**1. GENERAL MANAGER'S REPORT – David Kraska**

*Brief presentation on current activities relative to the WWSS Commission*

**2. PUBLIC COMMENT**

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

**3. CONSENT AGENDA**

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

- A. Approve the November 2, 2023 meeting minutes

**4. BUSINESS AGENDA**

- A. Approve WTP\_1.0 GMP2 Contract for Construction – David Kraska

**5. INFORMATION ITEMS**

- A. Water Treatment Plant Schedule Recovery Progress Update – David Kraska
- B. WWSP Performance Audit – Justin Carlton
- C. Planned February Business Agenda items – Joelle Bennett
- D. The next Board Meeting is scheduled on February 1, 2024, via Microsoft Teams

**6. COMMUNICATIONS AND NON-AGENDA ITEMS**

- A. None scheduled

**ADJOURNMENT**

# Willamette Water Supply System Commission

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**GENERAL MANAGER'S REPORT**

**To:** WWSS Board of Commissioners  
**From:** David Kraska, P.E., WWSS General Manager  
**Date:** December 7, 2023  
**Subject:** Willamette Water Supply System General Manager's Report

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This report provides an overview of some of the current Willamette Water Supply System (WWSS) work efforts being performed under the direction of this Commission.

- 1. Cost Agreement with Portland General Electric (PGE)** – In August the Board approved Resolution WWSS-06-23, which authorized the General Manager to execute PGE cost agreements over \$500,000 to secure the electrical distribution, transmission, and substation projects needed to energize WWSS facilities. Because WWSS future electrical load requires local expansion of transmission and substation capacity near the water treatment plant, the WWSS is required to reimburse PGE for its share of the necessary capital investments. This is memorialized in the cost agreement. The WWSS share has a value of approximately \$6 million, which is within the Willamette Water Supply Program (WWSP) Baseline 8.1. The new substation is currently under construction and PGE anticipates energizing it at the end of April 2024.
- 2. January 4<sup>th</sup> Board Meeting** – Currently, there are no planned business agenda items for the January WWSS Commission Board meeting. The January Board meeting “hold” will be cancelled.
- 3. WWSS Board Elections** – Section 5.3 of the WWSS Commission intergovernmental agreement states that the WWSS Board shall elect from its members a Chair and Vice Chair at the first Board meeting each calendar year. As we are not anticipating holding a January 2024 Board meeting, our first meeting for next calendar year will be February 1st. As a reminder, at our January 2022 meeting we discussed standardizing on two-year terms for officers. Currently, Chair Duggan and Vice Chair Judah are in the first of their two-year terms.
- 4. In-person meetings** – The WWSS Commission Board has been meeting remotely since April 2020. Some governmental bodies have returned to meeting in person or holding hybrid meetings. Staff request the Board's preferences for returning to meeting in person. If the Board is interested in meeting in person for all meetings, or just occasionally, or holding hybrid meetings, staff will evaluate logistics and present a transition plan at the next regular Board meeting.
- 5. Permitting and Communications Updates** –Attached to this General Manager's Report is a tabulation of the permits and approvals recently granted, and the status of those currently in process. Here are a few highlights of recent WWSP permitting and communications activities:

*Permitting highlights:*

- The Permitting Team is preparing the annual monitoring reports for the US Army Corps of Engineers (USACE) and the Oregon Department of State Lands (DSL) that are conditions of the USACE Section 404 and the DSL Removal/Fill Permits. These reports will provide a summary of construction work that

was completed in 2023, submit as-built drawings for the completed projects (only to the USACE), and summarize work that is anticipated to occur in 2024.

- With the return of rainy weather, much of the Permitting Team's time is currently focused on monitoring and supporting erosion and sediment control at the 14 active construction sites. Staff verify that erosion control measures are in place and are meeting the requirements of the Department of Environmental Quality (DEQ) 1200-C (water quality) permit, and other permits that have erosion control requirements.

*Communications highlights:*

- Communications staff have been busy on updating residents, agencies, and businesses impacted by the Cornelius Pass Road lane closure along Pipeline West (PLW)\_2.1. The work required lane closures for two-weeks and reduced the speed from 45 to 35 miles per hour. With the construction in the roadway now complete, the project contractor, Moore Excavation, Inc. (MEI) is now installing pipe north of the TriMet light rail and through the WWSS property between Orenco Woods Nature Park and the Cornelius Pass Road, north of Cherry Drive.
- Staff launched the Water Supply Integration communications project with Water Systems Consulting, Inc. (WSC) on November 27. A kickoff workshop was held with communications and water quality staff from TVWD and the cities of Hillsboro and Beaverton. The project will assist WWSS Owners in communicating changes, impacts, and benefits of the new water system in a coordinated and consistent fashion to our customers. Staff expect to complete the communications plan and implementation toolkit by August 2024. WSI-related communications with our customers are planned to begin in the Fall of 2024.

- 6. Construction Progress Update** – Attached to this General Manager's Report is a tabulation of the status of all the active construction projects. To provide a more complete understanding of the work underway, we will share a presentation of recent photos from the construction sites.

**Willamette Water Supply Program Permits and Approvals – Recent Actions and Status**

Date of Report: 11/27/2023

**Permits and Approvals Recently Granted**

| Agency               | Project Involved | Permit or Approval Granted  |
|----------------------|------------------|---|
| City of Wilsonville  | PLM_1.3          | Plumbing permit for catch basin relocation  |
| City of Sherwood     | PLM_4.2          | Engineering permit for waterline relocation   |
| City of Tigard       | MPE_1.2          | Temporary use permit renewal for Washington Square Mall staging area, ODOT ROW utility permit extension |
| Clean Water Services | System-Wide      | Service Provider Letter Extension   |
| City of Hillsboro    | PLW_2.1          | Noise variance, ODFW/DSL/NMFS/USACE In-Water Work Window Variance                                       |
| Washington County    | PLW_2.1          | ROW temporary access permit   |
| Washington County    | PLM_4.3          | Temporary road closure permit   |
| Washington County    | RES_1.0          | Building permits (2)  |

**Permits and Approvals Submitted**

| Agency                              | Projects Involved | Permit or Approval Submitted                           |
|-------------------------------------|-------------------|--|
| City of Wilsonville                 | PLM_1.3           | Plumbing permit for catch basin relocation             |
| Genesee and Wyoming                 | PLM_1.3           | ROE extension  |
| City of Beaverton                   | MPE_1.3           | Noise/night variance; Kinder Morgan crossing agreement |
| Kinder Morgan                       | MPE_1.3           | Crossing agreement                                     |
| City of Hillsboro                   | PLW_2.1           | Noise variance   |
| Washington County                   | PLW_2.1           | ROW temporary access permit                            |
| Oregon Department of Transportation | MPE_1.2           | ROW utility permit extension                           |

**Permits and Approvals in Progress**

| Agency            | Projects Involved | Permit or Approval in Progress   |
|-------------------|-------------------|--|
| Washington County | RES_1.0           | Mechanical building permits (3)  |
| City of Sherwood  | WTP_1.0           | Fire line work, retaining wall, sign, storage/racking permits            |
| City of Sherwood  | PLM_4.2           | Night variance, temporary road closures – Cipole and Wildrose, ROW Signs |

**Anticipated Approvals**

| Agency                        | Projects Involved | Permit or Approval Anticipated                        |
|-------------------------------|-------------------|---|
| Washington County             | RES_1.0           | Mechanical and building permits (8)                   |
| City of Wilsonville           | PLM_1.3           | Erosion control permit – Schedule B Work              |
| City of Beaverton             | MPE_1.3           | Noise/night variance                                  |
| Tualatin Valley Fire & Rescue | RWF_1.0           | Fuel storage tank permit                              |
| Tualatin Valley Fire & Rescue | WTP_1.0           | Fuel storage tank permit                              |
| City of Sherwood              | WTP_1.0           | Mechanical and retaining wall permits and sign permit |

**Willamette Water Supply Program Projects in Construction – Recent Status Update**

Date of Report: November 27, 2023

| Project    | Description   | Current and Planned Activities:   |
|------------|---|---|
| 1. RWF_1.0 | Raw Water Facilities project located at the Willamette River Water Treatment Plant in Wilsonville   | <ul style="list-style-type: none"> <li>- Roof installation at Upper Site Electrical Building.</li> <li>- Architectural system framing (doors, windows, louvers, etc.) at Electrical Bldg.</li> <li>- Upper site perimeter wall.</li> <li>- Electrical duct banks and site lighting.</li> <li>- Pump bases for new vertical turbine pumps.</li> <li>- Electrical work at Raw Water Pump Station.</li> </ul>  |
| 2. PLM_1.3 | Raw water pipeline project in Wilsonville from Wilsonville Road to Garden Acres Road  | <ul style="list-style-type: none"> <li>- Curb and gutter, sidewalk, storm drain, and street panel restoration on 95<sup>th</sup> Ave.</li> <li>- Completed 66-inch open cut waterline on Kinsman Rd.</li> <li>- Began appurtenance construction on Kinsman Rd.</li> <li>- Began 66-inch open cut waterline parallel to Boeckman Rd.</li> <li>- Mobilized tunneling subcontractor for Boeckman Rd. to 95<sup>th</sup> Ave. railroad crossing.</li> <li>- Approximately 6850 LF of 66-inch waterline installed (51% of total).</li> </ul>   |
| 3. WTP_1.0 | Water Treatment Plant project, located in City of Sherwood, near the intersection of SW Tualatin-Sherwood Road and SW 124 <sup>th</sup> Avenue  | <ul style="list-style-type: none"> <li>- Continued 78” overflow line and other yard piping.</li> <li>- Began excavation for footings at Area 08 (Admin Bldg.).</li> <li>- Finished slab and began wall concrete at Area 22 (Ballasted Floc).</li> <li>- Continued concrete work at Areas 25/26 (Ozone).</li> <li>- Continued slab and wall construction at Area 28 (Filters).</li> <li>- Continued concrete, electrical and process pipe at Area 30 (UV building).</li> <li>- Completed perimeter concrete wall construction and began interior baffle walls at Area 35 (Clearwell).</li> <li>- Completed concrete wall construction and began slide gate installation at Area 37 (EQ Basin).</li> <li>- Began concrete slab construction for Area 40 (Gravity Thickeners).</li> <li>- Began concrete slab construction for Area 52 (Thickened Sludge PS).</li> <li>- Completed hydrostatic test for wet well at Area 53 (FWPS).</li> </ul> |
| 4. PLM_4.2 | Finished water pipeline project being completed in partnership with Washington County’s Tualatin-Sherwood Road Project, (WWSS pipeline from Langer Farms Parkway to SW 124 <sup>th</sup> Avenue, Washington County work continues east to Teton Avenue) | <ul style="list-style-type: none"> <li>- Completed tunneling across Tualatin-Sherwood Rd. at 124<sup>th</sup> Ave.</li> <li>- 66-inch carrier pipe to be installed.</li> <li>- Washington County road widening work continues.</li> </ul>   |
| 5. PLM_4.1 | Finished water pipeline project being completed in partnership with Washington County’s Highway 99 Crossing Pipeline and Tualatin-Sherwood Road – Langer Farms Parkway to Borchers Drive  | <ul style="list-style-type: none"> <li>- Appurtenance piping and vaults for 66-inch waterline.</li> <li>- Base paving for County road widening.</li> </ul>  |



| Project                 | Description   | Current and Planned Activities:   |
|-------------------------|---|---|
| 6. PLM_4.4              | Finished water pipeline project being completed in partnership with Washington County’s Roy Rogers Road – Chicken Creek to Borchers Drive   | <ul style="list-style-type: none"> <li>- Continuing County road work.</li> <li>- All 66-inch waterline installed and tested.</li> <li>- Tie-ins to PLM 4.1 and PLM 4.3 to occur after both of those other projects are complete.</li> </ul>   |
| 7. PLM_4.3              | Finished water pipeline project in unincorporated Washington County along Roy Rogers Road   | <ul style="list-style-type: none"> <li>- Chicken Creek Crossing – Install 66-inch pipe in shafts, remove shaft shoring and backfill shafts.</li> <li>- Tualatin River Crossing – secant pile shaft demolition and backfill.</li> <li>- Approximately 10,640 LF of pipe installed (80% of total).</li> <li>- Shotcrete finish of soldier pile and lagging wall with tie-backs at Tributary #4.</li> </ul>  |
| 8. RES_1.0/<br>PLM_5.3  | Water Storage Tank and finished water pipeline project in rural Washington County. Tank site at SW Grabhorn Road and Stonecreek Drive. Pipeline extends from SW Grabhorn Road at SW Tile Flat Road to SW Rosedale Road at future Cornelius Pass Extension | <p><b>RES_1.0:</b></p> <ul style="list-style-type: none"> <li>- Constructing concrete columns (more than 90% complete).</li> <li>- Began concrete roof slab (33% complete).</li> <li>- Continued work in valve vaults.</li> <li>- Began masonry walls at Water Quality Building.</li> </ul> <p><b>PLM_5.3:</b></p> <ul style="list-style-type: none"> <li>- Completed installation of 66” waterline (except tie-ins to adjacent pipelines).</li> <li>- Completed interior joint mortar lining.</li> <li>- Continued surface restoration and plantings.</li> </ul> |
| 9. PLW_1.3              | Finished water pipeline project in South Hillsboro from SW Farmington Road to SE Blanton Street   | <ul style="list-style-type: none"> <li>- New fiber conduit installed via HDD at Butternut Creek</li> <li>- Installed power conduit to Butternut Creek turnout.</li> </ul>   |
| 10. PLW_1.2             | Finished water pipeline project being completed in partnership with Washington County’s Cornelius Pass Road project between Frances Street and Tualatin Valley Highway  | <ul style="list-style-type: none"> <li>- Continuing Frances St. turnout vault pressure reducing valve (PRV) and associated pipe installation.</li> <li>- Site restoration.</li> <li>- Permanent power to electrical cabinets installed.</li> <li>- Beginning “deficiency list” work for closeout.</li> </ul>  |
| 11. PLW_2.1             | Finished water pipeline project in Hillsboro. Cornelius Pass Road (Orenco Woods Nature Park to NE Cornelius Pass Road at NE Cherry Drive)   | <ul style="list-style-type: none"> <li>- Completed 48-inch waterline installation within Orenco Woods Nature Park (OWNP).</li> <li>- Completed 48-inch waterline installation from OWP to Cornelius Pass Rd.</li> <li>- Beginning 48-inch waterline installation from staging area to Cherry Dr.</li> </ul>   |
| 12. MPE_1.1/<br>COB_1.1 | Finished water pipeline project being completed in partnership with the City of Beaverton’s SW Western Avenue project   | <ul style="list-style-type: none"> <li>- Planning/coordination for Washington County Supply Line tie-in. Estimated to start in January 2024.</li> <li>- No current activities.</li> </ul>   |
| 13. MPE_1.2/<br>COB_1.2 | Finished water pipeline project in Beaverton from SW Scholls Ferry Road at Greenway Park to SW Allen Boulevard at Western Avenue  | <ul style="list-style-type: none"> <li>- 48-inch waterline and appurtenances on Allen Blvd.</li> <li>- 16-inch COB waterline on Allen Blvd.</li> <li>- Mechanical and electrical work inside PFC facility.</li> <li>- Shaft excavation and tunneling setup at upper Fanno Creek crossing.</li> <li>- Surface restoration.</li> </ul>  |
| 14. MPE_1.3             | Finished water pipeline project on Scholls Ferry Road from Roy Rogers Road to Greenway Park   | <ul style="list-style-type: none"> <li>- 48” waterline installation on Scholls Ferry Road headed west near 135<sup>th</sup> Avenue (night work).</li> <li>- Pavement restoration continuous with waterline installation.</li> </ul>   |

# Willamette Water Supply System Commission

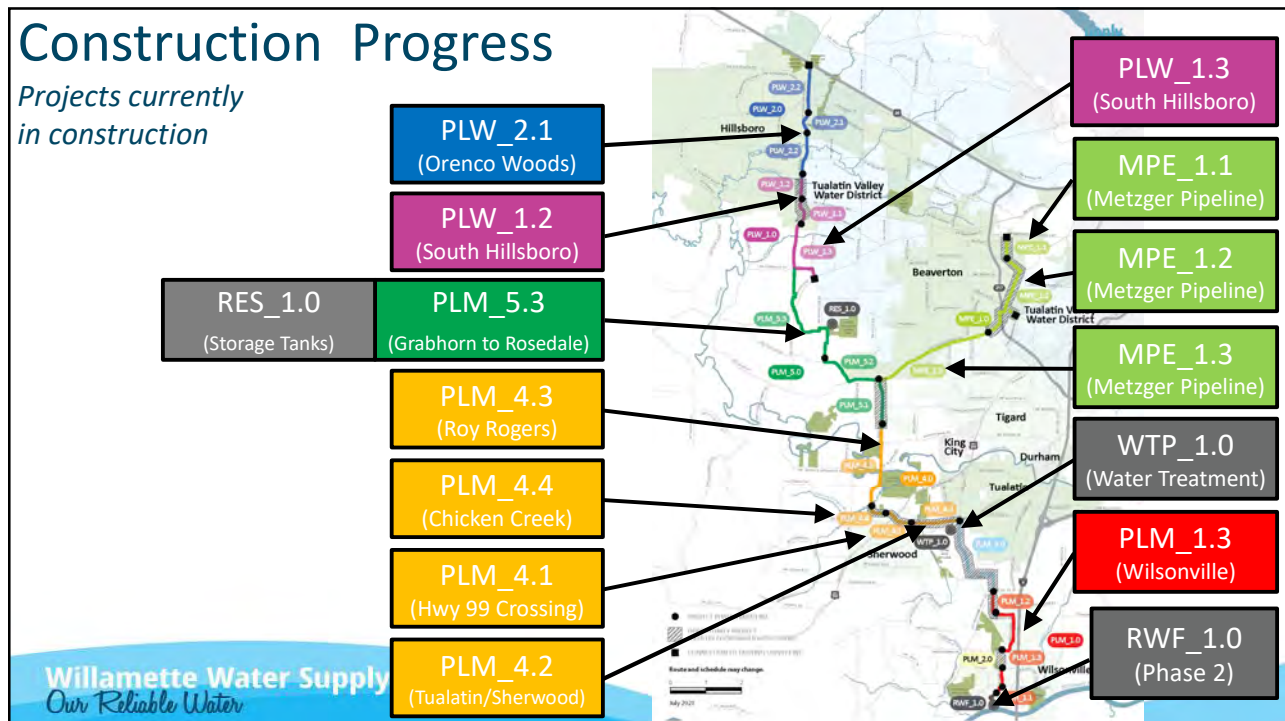
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# Willamette Water Supply *Our Reliable Water*

## 1A. Willamette Water Supply Program and Construction Progress Update

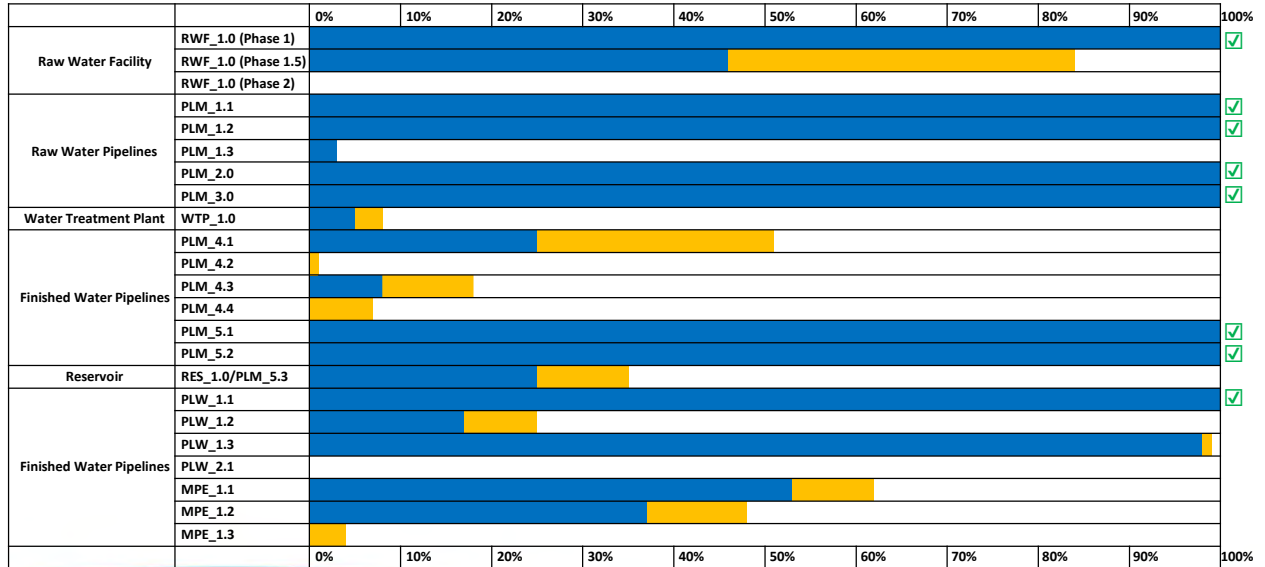
December 7, 2023

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## Dec 2022 Estimated Construction Physical Percent Complete



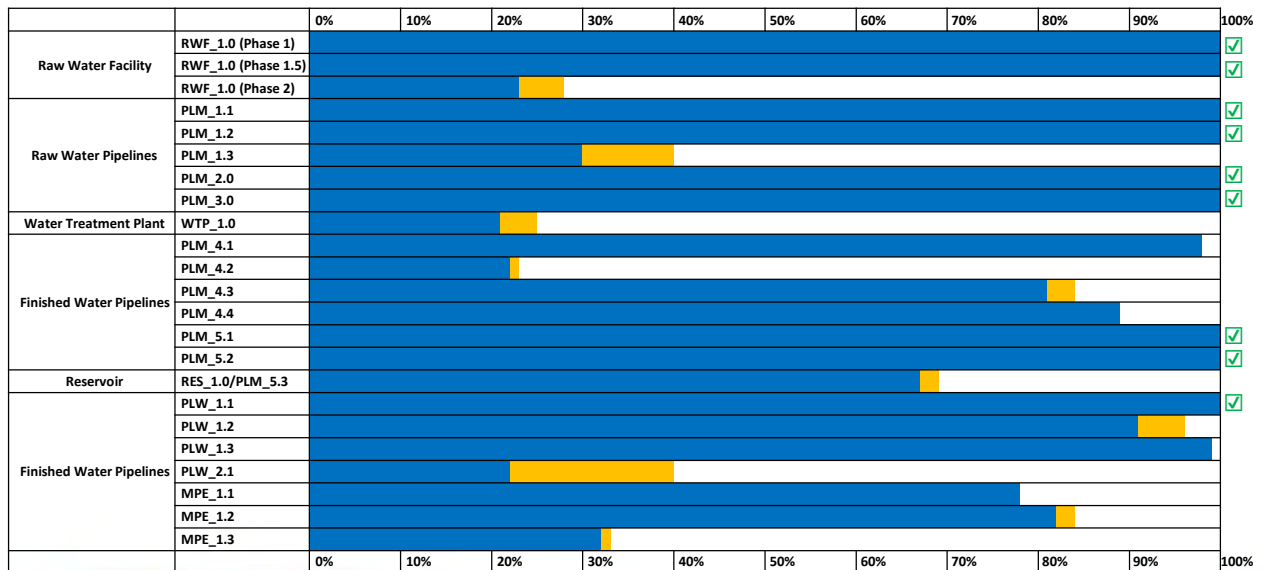
**Willamette Water Supply**  
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Completed This Period  
Previously Completed

*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.*

3

## Dec 2023 Estimated Construction Physical Percent Complete



**Willamette Water Supply**  
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Completed This Period  
(since Nov Board Mtg)  
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.*

4

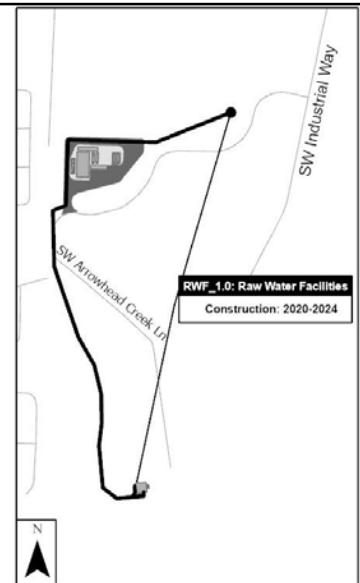
## RWF\_GMP-2.0

Contractor: Kiewit Infrastructure West Co.

Designer: Black & Veatch

### Current and Planned Activities:

- Roof installation at Upper Site Electrical Building
- Architectural system framing (doors, windows, louvers, etc.) at Electrical Bldg.
- Upper site perimeter wall
- Electrical duct banks and site lighting
- Pump bases for new vertical turbine pumps
- Electrical work at Raw Water Pump Station



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## Construction Photos – RWF\_1.0 (GMP-2)



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## Construction Photos – RWF\_GMP-2.0



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## Construction Photos – RWF\_GMP-2.0



8

## Construction Photos – RWF\_GMP-2.0

Construction of support footings for HVAC ductwork



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## Construction Photos – RWF\_GMP-2.0

Raw Water Pump Station:  
demolition of existing pump bases for new larger pump bases for WWSS vertical turbine pumps



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# PLM\_1.3

Contractor: Moore Excavation Inc.  
Designer: HDR

## Current and Planned Activities:

- Curb & gutter, sidewalk, storm drain, and street panel restoration on 95<sup>th</sup> Ave.
- Completed 66-inch open cut waterline on Kinsman Rd.
- Began appurtenance construction on Kinsman Rd.
- Began 66-inch open cut waterline parallel to Boeckman Rd.
- Mobilized tunneling subcontractor for Boeckman Rd. to 95<sup>th</sup> Ave. railroad crossing
- Approximately 6850 LF of 66-inch waterline installed (51% of total)



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## Construction Photos - PLM\_1.3

66-inch waterline installation near Boeckman Rd.



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## Construction Photos - PLM\_1.3

Concrete sidewalk restoration on 95<sup>th</sup> Ave.



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## Construction Photos - PLM\_1.3

Tunneling equipment delivery to Boeckman Rd/95<sup>th</sup> Ave. railroad crossing (84-inch auger bore)



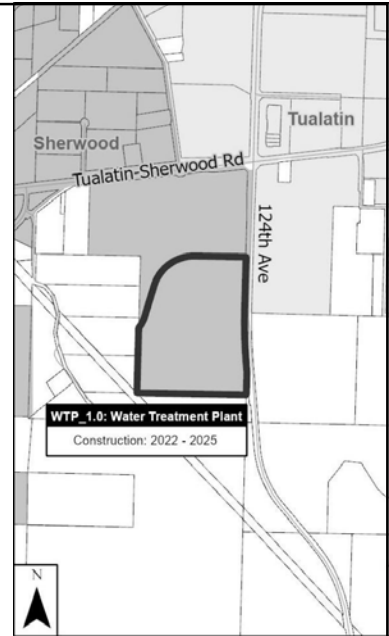
14

# WTP\_1.0

Contractor: Sundt Construction, Inc.  
Designer: CDM Smith

### Current and Planned Activities:

- Continued 78" Overflow line and other yard piping
- Began excavation for footings at Area 08 (Admin Bldg)
- Finished slab and began wall concrete at Area 22 (Ballasted Floc)
- Continued concrete work at Areas 25/26 (Ozone)
- Continued slab and wall construction at Area 28 (Filters)
- Continued concrete, electrical and process pipe at Area 30 (UV building)
- Completed perimeter concrete wall construction and began interior baffle walls at Area 35 (Clearwell)
- Completed concrete wall construction and began slide gate installation at Area 37 (EQ Basin)
- Began concrete slab construction for Area 40 (Gravity Thickeners)
- Began concrete slab construction for Area 52 (Thickened Sludge PS)
- Completed hydrostatic test for wet well at Area 53 (FWPS)



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# Construction Photos - WTP\_1.0

Filtration Area –  
electrical power and  
instrument signal  
conduits in slab



16

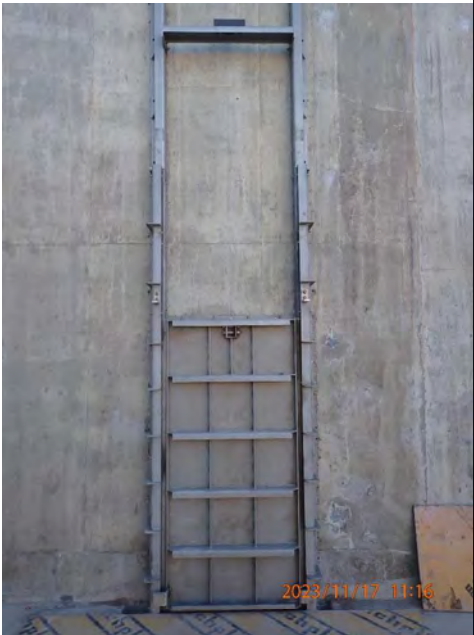


# Construction Photos - WTP\_1.0

Slide gate installation at EQ Basin



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# Construction Photos - WTP\_1.0

Interior baffle wall construction at Clearwell

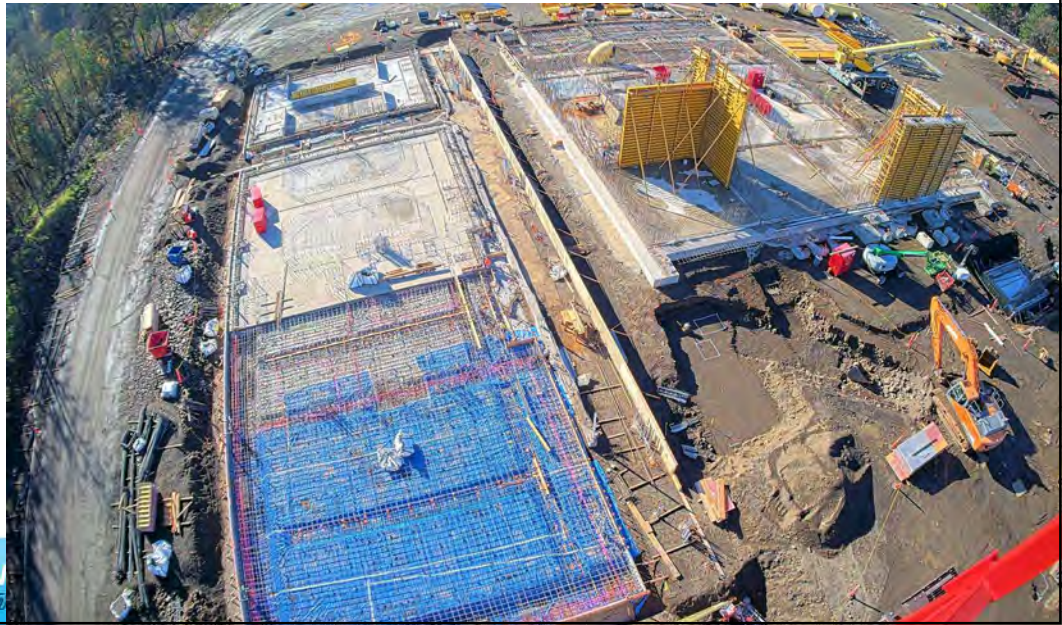


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## Construction Photos - WTP\_1.0

Chemical Area slabs (with radon vapor barrier) and first Ballasted Floc area walls



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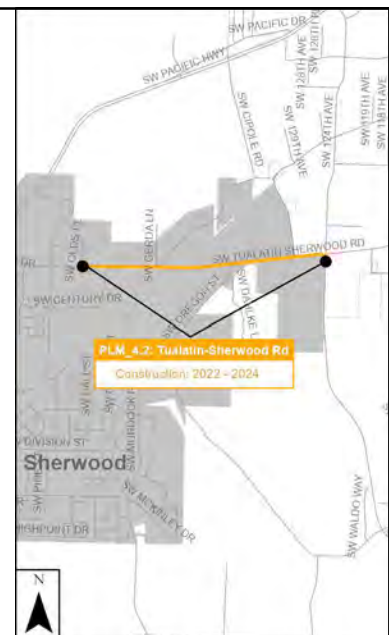
19

## PLM\_4.2

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

### Current and Planned Activities:

- Completed tunneling across Tualatin-Sherwood Rd. at 124<sup>th</sup> Ave.
- 66-inch carrier pipe to be installed
- Washington County road widening work continues



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## Construction Photos – PLM\_4.2

Tualatin-Sherwood Rd. at 124<sup>th</sup> Ave. - trenchless launch shaft. County road widening on south side of road.



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## Construction Photos – PLM\_4.2

Trenchless launch shaft at 124<sup>th</sup> Ave. and Tualatin-Sherwood Rd.

WTP\_1.0 project in background



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## PLM\_4.1

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

### Current and Planned Activities:

- Appurtenance piping and vaults for 66-inch waterline
- Base paving for County road widening



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## Construction Photos – PLM\_4.1

Wax tape (corrosion protection)  
installed on air valve vent piping



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## Construction Photos – PLM\_4.1

Air valve vent piping installation near Hwy 99



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## PLM\_4.4

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

### Current and Planned Activities:

- Continuing County road work.
- All 66-inch waterline installed and tested.
- Tie-ins to PLM 4.1 and PLM 4.3 to occur after both of those other projects are complete.



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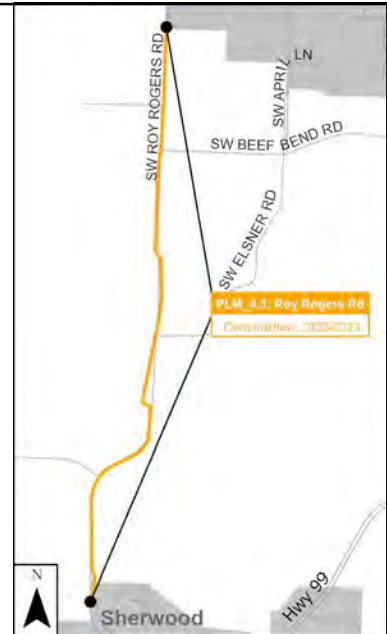
26

## PLM\_4.3

Contractor: Tapani Inc.  
Designer: Brown & Caldwell

### Current and Planned Activities:

- Chicken Creek Crossing – Install 66-inch pipe in shafts, remove shaft shoring and backfill shafts
- Tualatin River Crossing – secant pile shaft demolition and backfill
- Approximately 10,640 LF of pipe installed (80% of total)
- Shotcrete finish of soldier pile and lagging wall with tie-backs at Tributary #4



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## Construction Photos – PLM\_4.3

Chicken Creek tunnel shaft  
shoring removal



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## Construction Photos – PLM\_4.3

Installation of special pipe fittings in Chicken Creek tunnel south shaft



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## Construction Photos – PLM\_4.3

66-inch waterline installation up to Tualatin River tunnel north shaft



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## Construction Photos – PLM\_4.3

Installation of rebar for shotcrete finish of retaining wall at Tributary #4



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

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

Current and Planned Activities:

- RES\_1.0
  - Constructing concrete columns (more than 90% complete)
  - Began concrete roof slab (33% complete)
  - Continued work in valve vaults
  - Began masonry walls at Water Quality Building
- PLM\_5.3
  - Completed installation of 66" waterline (except tie-ins to adjacent pipelines)
  - Completed interior joint mortar lining
  - Continued surface restoration and plantings



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## Construction Photos – RES\_1.0

Reservoir roof slab construction



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## Construction Photos – RES\_1.0

Water Quality Building masonry walls



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## Construction Photos – RES\_1.0

Stainless steel weir and overflow pipe connection inside reservoir.

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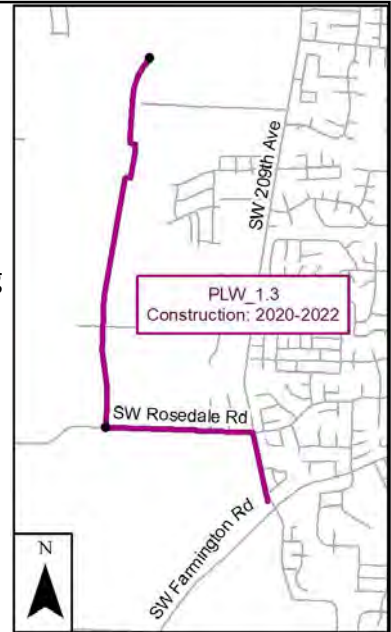


# PLW\_1.3

Contractor: Tapani, Inc.  
Designer: Kennedy/Jenks

## Current and Planned Activities:

- New fiber conduit installed via horizontal directional drilling at Butternut Creek
- Installed power conduit to Butternut Creek turnout



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# Construction Photos – PLW\_1.3

Fiber conduit installation at north side of Butternut Creek



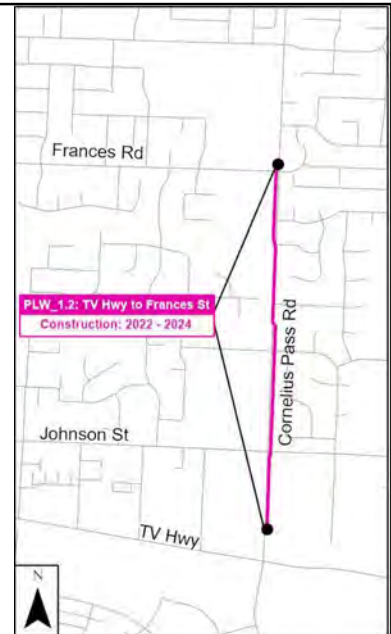
38

## PLW\_1.2

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

### Current and Planned Activities:

- Continuing Frances St. turnout vault pressure reducing valve (PRV) and associated pipe installation
- Site restoration
- Permanent power to electrical cabinets installed
- Beginning “deficiency list” work for closeout



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## Construction Photos – PLW\_1.2

Site restoration at Frances St. turnout; meter vault hatches in view



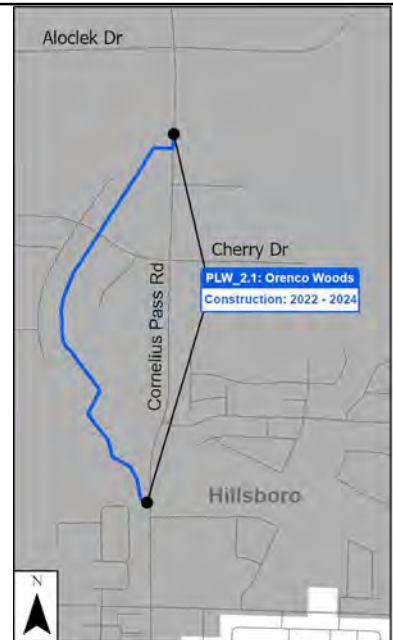
40

## PLW\_2.1

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

### Current and Planned Activities:

- Completed 48-inch waterline installation within Orenco Woods Nature Park (OWNP)
- Completed 48-inch waterline installation from OWINP to Cornelius Pass Rd.
- Beginning 48-inch waterline installation from staging area to Cherry Dr.



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Our Reliable Water

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## Construction Photos – PLW\_2.1

48-inch waterline installation  
in Cornelius Pass Rd. near  
entrance to Orenco Woods  
Nature Park



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## Construction Photos – PLW\_2.1

Completed haul road and temporary fence installation along “berm” alignment in advance of 48-inch waterline construction.



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## MPE\_1.1

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

### Current and Planned Activities:

- Planning/coordination for Washington County Supply Line tie-in. Estimated to start in January 2024.



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## MPE\_1.2

Contractor: Emery & Sons  
Designer: Brown & Caldwell

### Current and Planned Activities:

- 48-inch waterline and appurtenances on Allen Blvd.
- 16-inch COB waterline on Allen Blvd.
- Mechanical and electrical work inside PFC facility
- Shaft excavation and tunneling setup at upper Fanno Creek crossing
- Surface restoration



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## Construction Photos – MPE\_1.2

48-inch waterline installation on Allen Blvd. inside casing below railroad tracks



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## Construction Photos – MPE\_1.2

16-inch COB waterline installation on Allen Blvd. inside casing below railroad tracks



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## Construction Photos – MPE\_1.2

Sheet pile installation for tunnel launch shaft at upper Fanno Creek



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## Construction Photos – MPE\_1.2

Valving and pipe installation  
inside PFC facility



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## MPE\_1.3

Contractor: Emery & Sons  
Designer: Brown & Caldwell

Current and Planned Activities:

- 48" waterline installation on Scholls Ferry Rd. headed west near 135<sup>th</sup> Ave (night work)
- Pavement restoration continuous with waterline installation



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## Construction Photos – MPE\_1.3

48-inch waterline installation on Scholls Ferry Rd. (near 135<sup>th</sup> Ave.)



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## Construction Photos – MPE\_1.3

Trench pavement restoration on Scholls Ferry Rd. (near 135<sup>th</sup> Ave.)



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**QUESTIONS?**

**Willamette Water Supply**  
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# Willamette Water Supply System Commission

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**Willamette Water Supply System Commission  
Board Meeting Minutes  
Thursday, November 2, 2023**

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**Attendance:**

**Commissioners present:**

|                                       |                |
|---------------------------------------|----------------|
| City of Beaverton                     | Allison Tivnon |
| City of Hillsboro                     | David Judah    |
| Tualatin Valley Water District (TVWD) | Jim Duggan     |

---

**Committee Members present:**

|                   |   |
|-------------------|---|
| City of Beaverton | <i>Not available</i>                    |
| City of Hillsboro | Niki Iverson, Chris Wilson, Lee Lindsey |
| TVWD              | Paul Matthews, Pete Boone               |

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**Managing Agency Staff present:**

|  |                  |
|--|------------------|
| WWSS Commission General Manager /<br>Willamette Water Supply Program (WWSP) Director | David Kraska     |
| WWSP Assistant Director  | Joelle Bennett   |
| WWSP Program Manager   | Andre Tolme      |
| WWSP Deputy Program Manager  | Jill Chomycia    |
| WWSP Permitting and Outreach Manager   | Christina Walter |
| WWSS Commission Recorder / WWSP Executive Assistant                                  | Annette Rehms    |

**Other Attendees present:**

|  |                  |
|--|------------------|
| City of Beaverton Public Outreach Management Analyst | Stacy Revay      |
| City of Hillsboro Public Information Officer         | Lindsay Wochnick |
| TVWD Outreach and Engagement Coordinator             | Justin Dyke      |
| TVWD Water Resource Division Manager                 | Joel Cary        |
| TVWD Capital Improvement Program Manager             | Nick Augustus    |
| TVWD Engineering Manager                             | Sarah Alton      |
| WWSP Design Manager                                  | Scott Gibson     |
| Public Attendee                                      | Rob Annear       |

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**REGULAR SESSION – 12:00 PM**

**CALL TO ORDER**

Chair Duggan called the regular Willamette Water Supply System (WWSS) Commission meeting to order at 12:01 p.m.

**ROLL CALL**

Ms. Rehms administered the roll call and noted a quorum was present.

## 1. GENERAL MANAGER'S REPORT

The General Manager's report included status updates on Willamette Water Supply Program (WWSP) permitting, communications, and construction activities, the quarterly financial report for the period ending September 30, 2023, and the WWSS 2023 Audit Planning Letter. (*presentation on file*)

## 2. PUBLIC COMMENT

There were no public comments.

## 3. CONSENT AGENDA

- A. Approve the August 3, 2023, meeting minutes

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

## 4. BUSINESS AGENDA

- A. Approve Water Supply Integration Communications Plan, Toolkit, and Engagement Support Contract – *Christina Walter*

Ms. Walter presented an overview of the Water Supply Integration (WSI) progression timeline, the WSI Communications Plan, Toolkit, and Engagement support request proposal (RFP) timeline, and outlined the contract management approach. Task Order #1 scope of work includes: (*presentation on file*)

- Develop a comprehensive communications plan and timeline.
- Identify priority audiences.
- Develop key messaging and community engagement strategies.
- Test messaging prior to regionwide implementation and measure effectiveness.
- Develop for Owner use: graphics, video, sound bites, fact sheets, info graphics, training for front line staff.
- Develop internal trainings and briefings.

In response to commissioner's question regarding whether this work was within the Baseline 8.1 budget, staff replied that it was. [WWSS General Manager's note: A more complete answer is provided in the staff report for this agenda item, which explains that the budget for this work will be provided from Management Reserve for the balance of this fiscal year. The budget for WSI communications work in subsequent years will be captured in Baseline 9.0, which will be brought to the WWSS Board for consideration early next year. The budget for this work will not cause an overall increase in the WWSP Baseline budget as it is well within the approved Management Reserve.]

Motion was made by Tivnon and seconded by Judah, to approve MSA 2024-008 and Task Order #1 with Water Systems Consulting, Inc., in the amount of \$416,730.00 to provide Water Supply Integration Communications Plan, Toolkit, and Engagement Support to the Willamette Water Supply Program and its Owners. The motion passed unanimously with Tivnon, Judah, and Duggan voting in favor.



## 5. INFORMATION ITEMS

### A. Water Treatment Plant Schedule Recovery Progress Update – *Dave Kraska*

Mr. Kraska reviewed the current schedule for the WWSS WTP\_1.0 project. Progress on the schedule recovery plan has been slower than anticipated as the contractor continues to work on improving the quality and accuracy of its schedule. Once the improved schedule is available, WWSP staff will work closely with the Contractor's team to evaluate opportunities to retain the scheduled float. This topic will be discussed at each upcoming WWSS Board meeting. Staff will preview the information with the Management Committee. (*presentation on file*)

In response to questions, staff confirmed that the contractor, Sundt Construction, Inc., has been using critical path method to prepare its schedule.

### B. Planned December Business Agenda items – Joelle Benett

Ms. Bennett presented information on the business agenda items planned for the December 2023 WWSS Commission Regular Board Meeting.

Staff anticipates the following business agenda item:

1. Approve WTP\_1.0 GMP2 Contract for Construction

### C. The next Board meeting is scheduled on December 7, 2023, via Microsoft Teams.

## 6. COMMUNICATIONS AND NON-AGENDA ITEMS

### A. None scheduled

## ADJOURNMENT

There being no further business, Chair Duggan adjourned the meeting at 1:10 p.m.

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James Duggan, Chair

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David Judah, Vice Chair

# Willamette Water Supply System Commission

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**STAFF REPORT**

**To:** WWSS Board of Commissioners

**From:** Mike Britch, P.E., Willamette Water Supply System Engineering & Construction Manager

**Date:** December 7, 2023

**Subject:** Recommend Approval of WTP\_1.0 CM/GC Contract Amendment (Contract No. 2018-015 Amendment 42 and Change Order 93)

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**Requested Board Action:**

Consider approving a change to the Sundt Construction, Inc. contract (Contract 2018-015) in the amount of \$11,578,844 to incorporate Guaranteed Maximum Price (GMP) No. 2 for construction of the WTP\_1.0 Project of the Willamette Water Supply Program (WWSP).

**Key Concepts:**

- The Sundt contract for construction manager/general contractor (CM/GC) services was executed on January 25, 2019, and was planned to be amended to include two GMPs for construction.
  - GMP No. 1 for most of the water treatment plant construction
  - GMP No. 2 for final road construction, landscaping, fencing, and finished water system commissioning.
- Recently, the decision was made to separate the finished water system commissioning work from GMP No. 2 (draft expected in February 2024) as the CM/GC was not able to complete the scope and pricing for it in time. This allows for timely execution of the site work contracts while the CM/GC continues to work on scope and pricing for the finished water system commissioning.
- Finished water system commissioning work will now be performed under a new GMP No.3 that we are planning to bring to the WWSS Commission Board for approval at the February 2024 meeting.
- GMP No. 2 has a planned Notice to Proceed (NTP) date of December 14, 2023.
- The proposed GMP No. 2 was developed using a competitive, open-book process and includes CM/GC contingency, Owner's contingency, Owner's escalation/de-escalation contingency, and allowances for changed conditions and potential risks encountered during construction.
- The GMP No. 2 change order value of \$11,578,844 is within the approved \$16.8 million baseline budget (Baseline 8.1, approved in 2023) for this project. The difference in the change order value and the baseline will be used to fund GMP No. 3

**Background:**

**Project**

The WTP\_1.0 project consists of the construction of a new 60 MGD water treatment plant situated at a greenfield site in the Tonquin Employment Area in Sherwood. This will include construction of SW Ice Age Drive and half-street improvements for SW 124<sup>th</sup> Avenue. Procurement of ultraviolet (UV) disinfection,

ballasted flocculation, and dewatering screw press equipment has already been completed to allow for efficient design around those process elements. Major scope elements of GMP No. 2 include:

- Signage
- Paving
- Curb and Gutter
- Striping
- Landscaping

These identified major scope elements were expanded during the bidding and evaluation phase to encompass the seven work packages listed below.

Sundt was selected through a competitive, best value selection process in Q4 2018 to provide the WWSP CM/GC services for the WTP\_1.0 Project. The scope of work (SOW) includes design phase, construction phase, and post-construction services. Design phase services, early procurement of UV, ballasted flocculation, and dewatering screw press equipment, and construction phase services included in GMP No. 1 have been authorized to date.

#### **Construction Procurement Process**

The bid process for construction was completed in accordance with a procurement plan prepared by Sundt and reviewed by WWSP and its legal counsel. The process included outreach meetings to promote interest and understanding among potential bidders. A pre-bid meeting and site visit was held with interested bidders as well. RFP packages for the seven separate work packages were developed by Sundt in conjunction with WWSP. The work packages were organized into the following categories reflecting the basis of selection:

- WC-1014 Signage
- WC-3212 Site Surfacing
- WC-3216 Curb, Gutter & Sidewalks
- WC-3217 Striping
- WC-3231 Fence & Gates
- WC-3235 Forest Platform
- WC-3290 Site Furnishings, Landscape & Irrigation

All seven packages utilized minimum qualifications with the low bid as the basis of selection.

#### **GMP 2 Development and Review**

In the CM/GC delivery method, the bid review is an “open-book process” where the owners review all the detailed backup information provided by the CM/GC. Sundt submitted an initial draft GMP on October 24, 2023, and made several updates and refinements over the subsequent weeks. A thorough review of the GMP information was completed by WWSP staff and subject matter experts.

Bidder response, as determined by the quantity of bids received for each work package, was moderate. Outreach was conducted by the CM/GC Contractor before, during, and following the bidding process to ensure adequate coverage for the bid packages. Bidder participation is consistent with recent local and national trends.



The table below summarizes the components of GMP No. 2 and the basis for each component. Note that, because this work will be completed in parallel with the GMP No. 1 work, the CM/GC Contractor overhead (general conditions) included in GMP No. 1 is unchanged and no CM/GC Contractor overhead is included in GMP No. 2.

| <b>Component</b>                            | <b>Amount</b>       |
|---|---------------------|
| Work Packages                               | \$9,519,554         |
| Bonds, Insurance, and Taxes                 | \$210,939           |
| CM/GC Fee Non Self-Performed Work (3.5%)    | \$326,905           |
| CM/GC Fee Self-Performed Work (9.0%)        | \$35,132            |
| CM/GC Contingency (3%)                      | \$190,391           |
| Allowances                                  | \$677,153           |
| Owner's Contingency (5%)                    | \$475,978           |
| Escalation/De-escalation Contingency (1.5%) | \$142,793           |
| <b>Total</b>                                | <b>\$11,578,844</b> |

WWSP has implemented numerous actions to manage the cost of the WTP\_1.0 project. During the CM/GC procurement, cost was a major component of the selection process. CM/GC fees, bonds and insurance rates, and rates for key professional staff were established through that competitive process. The CM/GC contingency was established through negotiations. During the design phase, the design consultant, CM/GC, and WWSP staff engaged in extensive value engineering. During the development of GMP No. 2, bidder outreach was extensive; open-book competitive bidding was used; supplemental bids were sought for packages with low responsiveness; prices were negotiated downward; and the process and results were subjected to a comprehensive review.

**Budget Impact**

The following is a summary of GMP No. 2 compared to the current Baseline Budget:

| <b>Cost Item</b>                                  | <b>Total</b>        |
|---|---------------------|
| Baseline 8.1 Construction Budget                  | \$16,800,000        |
| Baseline 8.1 Project-level Contingency (3%)       | \$504,000           |
| <b>Total Baseline 8.1 Budget</b>                  | <b>\$17,304,000</b> |
| GMP No. 2   | \$11,578,844        |
| Project-level Contingency (3%)                    | \$347,635           |
| <b>Total Estimated Construction Cost for GMP2</b> | <b>\$11,926,479</b> |

The net difference between the Baseline 8.1 (official release) and the total estimated construction cost for GMP No. 2 of \$5,377,521 will be used to fund GMP No. 3 early in 2024.

The following is a summary of the estimated share of the total GMP No.2 cost (including project contingency) by WWSS partner:

| <b>Estimated Partner Share of Proposed GMP No. 2 Cost<sup>1</sup></b> |                    |
|---|--------------------|
| <i>TVWD Estimated Share<sup>2</sup> (58.92%)</i>                      | <i>\$7,027,082</i> |
| <i>Hillsboro Estimated Share<sup>2</sup> (36.09%)</i>                 | <i>\$4,304,266</i> |
| <i>Beaverton Estimated Share<sup>2</sup> (4.99%)</i>                  | <i>\$595,131</i>   |
| <sup>1</sup> Includes Project-level Contingency of 3% for GMP No. 2   |                    |
| <sup>2</sup> Based on 100.3 MGD Ownership Capacity                    |                    |

**Staff Contact Information:**

David Kraska, P.E., WWSS General Manager, 503-941-4561, david.kraska@tvwd.org

Mike Britch, P.E., WWSP Engineering & Construction Manager; 503-941-4565; mike.britch@tvwd.org

**Attachments:**

- Exhibit 1: DRAFT Sundt CO-42 to Agreement 2018-015

**Change Title:** PCO 93  
**Project:** WTP\_CMGC  
**To:** SUNDT CONSTRUCTION INC

**Change Order#** 42  
**Date:** 11/27/2023  
**Contract #** 2018-015

The following PCOs are hereby incorporated into the Contract:

| PCO#     | Description   | Time Impact (Days) | Change Amount   |
|----------|---|--------------------|-----------------|
| PCO - 93 | GMP 2 Incorporation *No Off-site Commissioning & Startup* | 0                  | \$11,578,844.56 |

|  |                  |
|--|------------------|
| The Original Contract Sum was  | \$1,083,696.00   |
| Net Change by Previously Authorized Requests and Changes             | \$405,989,720.91 |
| The Contract Sum Prior to this Change Order was                      | \$407,073,416.91 |
| The Contract Sum will change by                                      | \$ 11,578,844.56 |
| The New Contract Sum including this Change Order                     | \$418,652,261.47 |
| The Contract Time will change by                                     | 0 Days           |
| The Date of Contract Completion as of this Change Order Therefore is | 3/26/2026        |

The compensation amount of this Change Order, including time and price, comprises the total compensation due the Contractor, its Subcontractors, Suppliers, or any other party for whom Contractor is responsible, for the work or change defined in the Change Order, including impact on unchanged Work, and is all inclusive of any additional costs incurred by the Contractor to date. By executing this Change Order, the Contractor acknowledges and agrees on behalf of itself, its Subcontractors, Suppliers, and any other party for whom Contractor is responsible, that the stipulated compensation includes payment for all work contained in the Change Order, plus all payment for the interruption of schedules, extended field overhead costs, delay, and any costs resulting from, arising out of, in connection with, or impacting all other Work under this Contract. The execution of this Change Order constitutes full satisfaction and total equitable adjustment for the change. No further claim or request for equitable adjustment of any type for any reasonably foreseeable cause shall arise out of or as a result of this Change Order on the remainder of the Work under this Contract. All rights, without exception or reservation of any kind whatsoever, to file any further claim related to this Change Order are hereby waived.

**OWNER**

**By:** \_\_\_\_\_  
**Name:** \_\_\_\_\_  
**Title:** \_\_\_\_\_  
**Date:** \_\_\_\_\_

**SUNDT CONSTRUCTION INC**

**By:** \_\_\_\_\_  
**Name:** \_\_\_\_\_  
**Title:** \_\_\_\_\_  
**Date:** \_\_\_\_\_

**PCO-93 Contract No. 2018-015  
WTP\_1.0 Construction Management / General Contractor Services**

**WTP CMGC Contract deliverables and WTP Construction**

In accordance with the Contract Agreement, this change authorizes the not to exceed, Guaranteed Maximum Price 2 (GMP 2) of \$11,586,819.00 for the WTP\_1.0 Construction Phase 2 (two). The following documents are provided as back-up for GMP 2:

- A.1 - Summary of GMP 2
- A.2 - List of Clarifications, Assumptions, and Exclusions (EAC)
- A.3 - Schedule of Values
- A.4 - Supporting Documentation (Exhibit A's, Abstracts, Bid Forms, & Proposals)
- A.5 - List of Plans and Specifications use for GMP Proposals
- A.6 - Organizational Chart
- A.7 - Progress Schedule in CPM Format
- A.8 - Project Management Plans
- A.9 - Updated Cash-Flow Forecast
- Appendix A - Bid Outreach and Advertisements
- Appendix B - Supplemental Bidding Information

Except for the Corporate Activities Tax, which the parties have addressed through a separate agreement, neither party waives any argument with respect to the Contract's treatment of income taxes, gross receipt taxes, or taxes on profits.

Note that commitment items in the change order are entered at the bid package level and are shown as lump sum for the purposes of invoice administration and use of e-Builder. Actual costs shall be billed per contract requirements.

| Item | Description                               | Quantity | Units | Unit Price | Net Amount     |
|------|---|----------|-------|------------|----------------|
| 400  | GMP 2 Payment & Performance Bond          |          |       | \$ 0.00    | \$72,998.00    |
| 401  | GMP 2 General Liability Insurance         |          |       | \$ 0.00    | \$49,420.00    |
| 402  | GMP 2 Builders Risk & Pollution Insurance |          |       | \$ 0.00    | \$48,129.00    |
| 403  | GMP 2 Corporate Activities Tax            |          |       | \$ 0.00    | \$40,392.00    |
| 404  | GMP 2 CMGC Fee - Non Self Performed       |          |       | \$ 0.00    | \$326,905.00   |
| 405  | GMP 2 CM/GC Fee - Self Performed          |          |       | \$ 0.00    | \$35,132.00    |
| 410  | GMP 2 WC-1014 - Signage                   |          |       | \$ 0.00    | \$153,300.00   |
| 411  | GMP 2 WC-3212 - Site Surfacing            |          |       | \$ 0.00    | \$1,084,678.00 |
| 412  | GMP 2 WC-3216 - Curb, Gutter & Sidewalks  |          |       | \$ 0.00    | \$1,008,287.00 |



|              |   |           |                      |
|--------------|---|-----------|----------------------|
| 413          | GMP 2 WC-3217 - Striping                                    | \$ 0.00   | \$108,199.00         |
| 414          | GMP 2 WC-3231 - Fence & Gate                                | \$ 0.00   | \$2,642,613.00       |
| 415          | GMP 2 WC-3235 - Forest Platform                             | \$ 0.00   | \$390,355.00         |
| 416          | GMP 2 WC-3290 - Site Furnishings,<br>Landscape & Irrigation | \$ 0.00   | \$4,132,122.00       |
| 406          | GMP 2 CM/GC Contingency                                     | \$        | \$190,391.00         |
| 407          | GMP 2 Escalation/De-Escalation<br>Contingency               | \$        | \$142,793.00         |
| 408          | GMP 2 Allowance - WC-3290                                   | \$        | \$677,152.56         |
| 409          | GMP 2 Owners Contingency                                    | \$        | \$475,978.00         |
| <b>Total</b> |   | <b>\$</b> | <b>11,578,844.56</b> |

DRAFT

|   |    | GMP2     |                   | GMP1 and GMP2      |
|---|----|----------|-------------------|--------------------|
| <b>A1. DIRECT COST OF WORK TOTAL - NON-SELF PERFORM</b>                   |    | a1       | 9,129,199         | 145,109,495        |
| <b>A2. DIRECT COST OF WORK TOTAL - SELF PERFORM</b>                       |    | a2       | 390,355           | 181,790,187        |
| <b>TOTAL DIRECT COSTS (a1+a2)</b>   |    | a3       | <b>9,519,554</b>  | <b>326,899,681</b> |
| B1. GENERAL CONDITIONS (CM/GC) from detail breakdown of CMGC              | b1 | 0.000%   | 0                 | 23,072,144         |
| C1. PAYMENT & PERFORMANCE BOND [ bond tab ]                               | c1 | 0.670%   | 72,998            | 3,282,647          |
| C2. GENERAL LIABILITY INSURANCE (PLPD) [ c2 x a8 ]                        | c2 | 0.453%   | 49,420            | 3,228,610          |
| C3. BUILDERS RISK & POLLUTION INSURANCE [ insurance tab ]                 | c3 | 0.441%   | 48,129            | 2,671,156          |
| C4. CORPORATE ACTIVITIES TAX [ (250 + (a8 x 0.65)) x c4 ]                 | c4 | 0.570%   | 40,392            | 1,542,804          |
| <b>TOTAL INDIRECT COSTS (b1+c1+c2+c3+c4)</b>                              |    | a4       | <b>210,939</b>    | <b>33,797,361</b>  |
| <b>SUBTOTAL DIRECT AND INDIRECT COSTS (a3+a4)</b>                         |    | a5       | <b>9,730,493</b>  | <b>360,697,043</b> |
| D1. CONSTRUCTION FEE - NON SELF PERFORM (CM/GC) [ (a1+c1+c2+c3+c4) x d1 ] | d1 | 3.500%   | 326,905           | 5,454,215          |
| D2. CONSTRUCTION FEE - SELF PERFORM & CM GC's [ (a2+b1) x d2 ]            | d2 | 9.000%   | 35,132            | 18,437,610         |
| D3. CM/GC CONTINGENCY (Direct Costs Only) [ a3 x d3 ]                     | d3 | 2.000%   | 190,391           | 9,711,795          |
| <b>TOTAL CM/GC FEE &amp; CONTINGENCIES (a5+d1+d2+d3)</b>                  |    | a6       | <b>552,428</b>    | <b>33,603,620</b>  |
| E1. ESCALATION CONTINGENCY (Direct Costs Only) [ a3 x e1 ]                | e1 | 1.500%   | 142,793           | 4,903,495          |
| E2. OWNERS CONTINGENCY (Direct Costs Only) [ a3 x f1 ]                    | f1 | 5.000%   | 475,978           | 16,344,984         |
| E3. ALLOWANCES (See Allowance Log)  | h1 | See Log  | 677,153           | 4,538,581          |
| <b>TOTAL OWNER'S CONTINGENCIES &amp; ALLOWANCES (e1+e2+e3)</b>            |    | a7       | <b>1,295,924</b>  | <b>25,787,060</b>  |
| F1. NEGOTIATED PACKAGE REDUCTION / CREDIT                                 | f1 | Lump Sum | 0                 | (3,000,000)        |
| <b>GMP2 TOTAL PROJECT COST (a5+a6+a7+f1)</b>                              |    | a8       | <b>11,578,844</b> | <b>417,087,722</b> |

# ESTIMATE REVIEW REPORT

TVWD WTP 1.0 - GMP2 100% CD

11/17/2023

Project Location:

Bid Date: 11/4/2021 12:00:00AM

Lead Estimator: Dean Zimmerman

Estimate Type: GMP



| ITEM                      | ACTIVITY | DESCRIPTION  | QTY UNIT | TOTAL LABOR | TOTAL MATERIAL   | TOTAL EQUIPMENT | TOTAL SUBCONTRACT | TOTAL COST        |
|---------------------------|----------|--|----------|-------------|------------------|-----------------|-------------------|-------------------|
| <b>TOTAL PROJECT COST</b> |          |  |          | <b>0</b>    | <b>2,059,291</b> | <b>0</b>        | <b>9,519,554</b>  | <b>11,578,844</b> |
| TOTAL INDIRECTS           |          |  |          | 0           | 2,059,291        | 0               | 0                 | 2,059,291         |
| FEES & INSURANCE          |          |  |          | 1 LS        | 2,059,290.56     |                 |                   |                   |
| BONDS                     |          |  |          | 1 LS        | 72,998.00        |                 |                   |                   |
| GL/BR INSURANCES          |          |  |          | 1 LS        | 97,549.00        |                 |                   |                   |
| CAT TAX                   |          |  |          | 1 LS        | 40,392.00        |                 |                   |                   |
| ALLOWANCE                 |          |  |          | 1 LS        | 677,152.56       |                 |                   |                   |
| NON-SELF PERFORM FEE      |          |  |          | 1 LS        | 326,905.00       |                 |                   |                   |
| SELF PERFORM FEE          |          |  |          | 1 LS        | 35,132.00        |                 |                   |                   |
| CONTRACTORS CONTINGENCY   |          |  |          | 1 LS        | 190,391.00       |                 |                   |                   |
| ESCALATION CONTINGENCY    |          |  |          | 1 LS        | 142,793.00       |                 |                   |                   |
| OWNER'S CONTINGENCY       |          |  |          | 1 LS        | 475,978.00       |                 |                   |                   |
| Bond                      |          |  |          |             | 0                |                 |                   |                   |
| 91000000                  |          | GENERAL CONDITIONS                                 | 217 WK   | 0.00        | 0.00             | 0.00            | 0.00              | 0.00              |
| <b>TOTAL DIRECTS</b>      |          |  |          | <b>0</b>    | <b>0</b>         | <b>0</b>        | <b>9,519,554</b>  | <b>9,519,554</b>  |
| 10140000                  |          | WC-1014 - Signage                                  | 1 LS     | 0.00        | 0.00             | 0.00            | 153,300.00        | 153,300.00        |
| 10140100                  |          | \$\$ 03 - SITE IMPROVEMENTS                        | 1 LS     | 0.00        | 0.00             | 0.00            | 153,300.00        | 153,300.00        |
| 10140110                  |          | Signage  | 1 LS     | 0.00        | 0.00             | 0.00            | 153,300.00        | 153,300.00        |
| 10140110                  | 1014     | Signage  | 1 LS     | 0.00        | 0.00             | 0.00            | 153,300.00        | 153,300.00        |
| 32000000                  |          | WC-3212 - Site Surfacing                           | 1 LS     | 0.00        | 0.00             | 0.00            | 1,084,678.00      | 1,084,678.00      |
| 32000010                  |          | \$\$ 03 - SITE IMPROVEMENTS                        | 1 LS     | 0.00        | 0.00             | 0.00            | 1,084,678.00      | 1,084,678.00      |
| 32000010                  | 321222   | Asphalt Paving & Site Surfacing                    | 1 LS     | 0.00        | 0.00             | 0.00            | 1,084,678.00      | 1,084,678.00      |
| 32010000                  |          | WC-3216 - Curb, Gutter & Sidewalks                 | 1 LS     | 0.00        | 0.00             | 0.00            | 1,008,287.00      | 1,008,287.00      |
| 32010010                  |          | \$\$ 03 - SITE IMPROVEMENTS                        | 1 LS     | 0.00        | 0.00             | 0.00            | 1,008,287.00      | 1,008,287.00      |
| 32010010                  | 321602   | Concrete Curbs, Gutters & Sidewalks                | 1 LS     | 0.00        | 0.00             | 0.00            | 1,008,287.00      | 1,008,287.00      |
| 32020000                  |          | WC-3217 - Striping                                 | 1 LS     | 0.00        | 0.00             | 0.00            | 108,199.00        | 108,199.00        |
| 32020010                  |          | \$\$ 03 - SITE IMPROVEMENTS                        | 1 LS     | 0.00        | 0.00             | 0.00            | 108,199.00        | 108,199.00        |
| 32020010                  | 321702   | Site Striping                                      | 1 LS     | 0.00        | 0.00             | 0.00            | 108,199.00        | 108,199.00        |
| 32030000                  |          | WC-3231 - Fence & Gates                            | 1 LS     | 0.00        | 0.00             | 0.00            | 2,642,613.00      | 2,642,613.00      |
| 32030010                  |          | \$\$ 03 - SITE IMPROVEMENTS                        | 1 LS     | 0.00        | 0.00             | 0.00            | 2,642,613.00      | 2,642,613.00      |
| 32030010                  | 323106   | Site Fencing & Gates                               | 1 LS     | 0.00        | 0.00             | 0.00            | 2,642,613.00      | 2,642,613.00      |
| 32030100                  |          | WC-3235 - Forest Platform                          | 1 LS     | 0.00        | 0.00             | 0.00            | 390,355.00        | 390,355.00        |
| 32030110                  |          | \$\$ 03 - SITE IMPROVEMENTS                        | 1 LS     | 0.00        | 0.00             | 0.00            | 390,355.00        | 390,355.00        |
| 32030110                  | 32350011 | 323500 - Forest Platform                           | 1 LS     | 0.00        | 0.00             | 0.00            | 390,355.00        | 390,355.00        |
| 32040000                  |          | WC-3290 - Site Furnishings, Landscape & Irrigation | 1 LS     | 0.00        | 0.00             | 0.00            | 4,132,122.00      | 4,132,122.00      |
| 32040010                  |          | \$\$ 03 - SITE IMPROVEMENTS                        | 1 LS     | 0.00        | 0.00             | 0.00            | 4,132,122.00      | 4,132,122.00      |
| 32040010                  | 329001   | Landscaping & Irrigation                           | 1 LS     | 0.00        | 0.00             | 0.00            | 4,132,122.00      | 4,132,122.00      |

# Willamette Water Supply System Commission

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# Willamette Water Supply

*Our Reliable Water*

## 4.A. Approve WTP\_1.0 GMP2 Contract for Construction – *David Kraska*

WWSS Commission Board Meeting  
December 7, 2023

1

## WTP\_1.0 Background

- Located in the Tonquin Employment Area in Sherwood
- The WTP will initially produce up to 60 million gallons per day (MGD), with full buildout production of 120 MGD
- WTP\_1.0 includes construction of Ice Age Drive and half street improvements for SW 124<sup>th</sup> Ave
- Construction will be bid in three GMP packages
- Early Equipment Procurement and GMP 1 are already executed



2

# Project Scopes

## GMP 1 Scope of Work

- Best Value:
  - Earthwork/Utilities
  - Process Integration
  - Concrete
  - Electrical
- Assigned Contracts
  - SCADA Integrator
  - Security Integrator
  - Vibration Monitoring
  - Erosion Control compliance
- Low Bid
  - Balance of scope of work

## GMP 2 Scope of Work

- Low Bid
  - Signage
  - Paving
  - Curb and Gutter
  - Striping
  - Landscaping
- Negotiated / Low Bid
  - Forest Platform

## GMP 3 Scope of Work

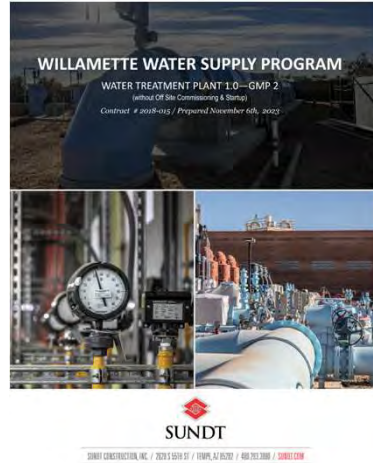
- Negotiated
  - Finished water distribution system startup and commissioning
  - System punch list items

# WTP\_1.0 CM/GC Background

- Sundt Construction contract for CM/GC services was executed in January 2019
  - Included design phase services for WTP\_1.0
  - Included preparation of two GMPs:
    - GMP No. 1 for most of the WTP
    - GMP No. 2 for final road construction, landscaping, fencing, and finished water commissioning
- GMP1 NTP on April 8, 2022
- GMP2 NTP planned for December 15, 2023
- GMP3 NTP planned for March 2024

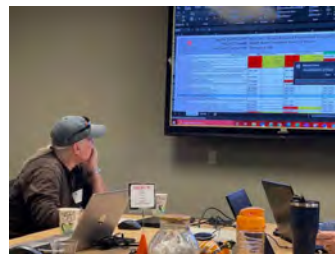
## GMP2 Outreach

- Pre-bid meetings prior to advertisement
- Pre-bid meeting after advertisement
- Focused meetings with vendors/subs for individual work packages after advertisement
- Use of OurReliableWater website for consolidated location for all vendors and subs to access bid information, including recordings of all meetings



## Bidding Process

- Updated wage rate information with GMP2 RFP
- Bid questions jointly addressed
  - All technical questions routed to WTP\_1.0 design engineer
  - Sundt responded to scoping and contractual questions
- Sundt received bids
- Five addenda issued to address bidder questions
- “Open Book Approach” to bid review
- Sundt/WWSP met in late September
  - Reviewed each work package in detail



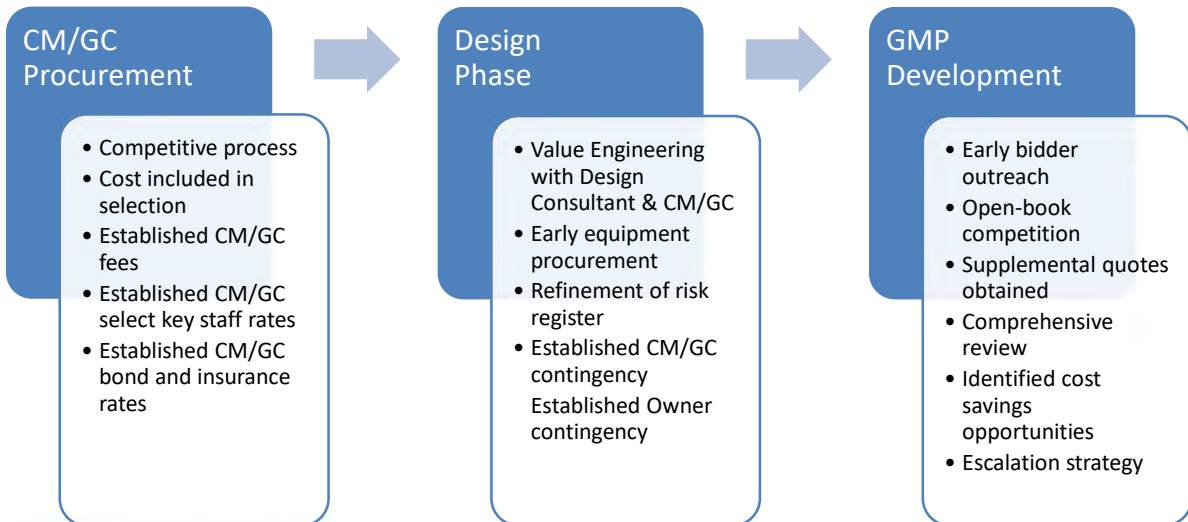
## Market Competition and Cost

| Bid Item                         | Number of Bidders                 | Cost               |
|----------------------------------|-----------------------------------|--------------------|
| Signage                          | 2                                 | \$153,300          |
| Paving                           | 2                                 | \$1,084,678        |
| Curb and Gutter                  | 2                                 | \$1,008,287        |
| Striping                         | 1                                 | \$108,199          |
| Fence and Gates                  | 2                                 | \$2,642,613        |
| Forest Platform                  | no bidders, negotiated with Sundt | \$390,355          |
| Landscaping                      | 3                                 | \$4,132,122        |
| <b>Total Direct Cost of Work</b> |                                   | <b>\$9,519,554</b> |

- Total GMP2 cost = \$11,578,844  
(includes contingencies, allowances and general conditions)
- Baseline 8.1 Budget for WTP\_1.0 GMP 2 = \$17.3 M  
(includes budget for WWSS commissioning and startup)

7

## Actions Taken for Cost Management through GMP



8



**QUESTIONS?**

#### 4.A. Requested Board Action

Consider approving a change to the Sundt Construction contract (Contract 2018-015) in the amount of \$11,578,844 to incorporate Guaranteed Maximum Price No. 2 for the construction of the WTP\_1.0 project of the Willamette Water Supply Program.

# Willamette Water Supply System Commission

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**STAFF REPORT**

**To:** WWSS Board of Commissioners  
**From:** Dave Kraska, P.E., General Manager  
**Date:** December 7, 2023  
**Subject:** Water Treatment Plant Schedule Recovery Progress Update

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**Key Concepts:**

On-time completion of the Willamette Water Supply System (WWSS) construction is of critical importance to the Partners (TVWD and the cities of Hillsboro and Beaverton), but the Water Treatment Plant (WTP\_1.0) project is currently behind schedule. At the December WWSS Commission Board meeting, staff will share a presentation of the following information:

- Summary of the current WTP\_1.0 schedule and finish date
- Efforts underway to identify and evaluate options for recovering the project schedule
- Current, expanding activities at the WTP\_1.0 project site

**Background:**

On-time completion of the Willamette Water Supply System (WWSS) is a primary goal of the Willamette Water Supply Program (WWSP). A detailed review of the WWSP schedule and budget at the end of Fiscal Year 2023 revealed that some projects were performing at a slower spend rate than originally anticipated, but only the Water Treatment Plant project (WTP\_1.0) is currently threatening on-time completion of the WWSP.

This information was shared with both the WWSS Commission Board and the TVWD Board in August, along with a high-level plan for schedule recovery on the WTP\_1.0 project. Since that time, the WWSP team has been working with the WTP\_1.0 general contractor (Sundt Construction, Inc.) on a schedule recovery plan while simultaneously continuing to manage the expanding activities on the WTP\_1.0 project site.

The WWSP team continues to hold weekly schedule review meetings with the contractor. On November 16, 2023, staff held a partnering meeting with the general contractor to further discuss the schedule issues. The contractor has recently brought on a new scheduling team to address our concerns related to the quality of the schedule. Delivery of the new schedule for the WTP\_1.0 project is anticipated in April 2024. Meanwhile, the WWSP construction management team will continue to manage the work against the current version of the schedule.

At the December WWSS Commission Board meeting, staff will share a presentation that provides an update on these activities.

**Budget Impact:**

Informational item only. There are no budget impacts from this staff report. All items discussed in this report are included in WWSP Baseline 8.1 budget.

**Staff Contact Information:**

David Kraska, P.E.; General Manager; 503-941-4561; david.kraska@tvwd.org

**Attachments:**

None

# Willamette Water Supply System Commission

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

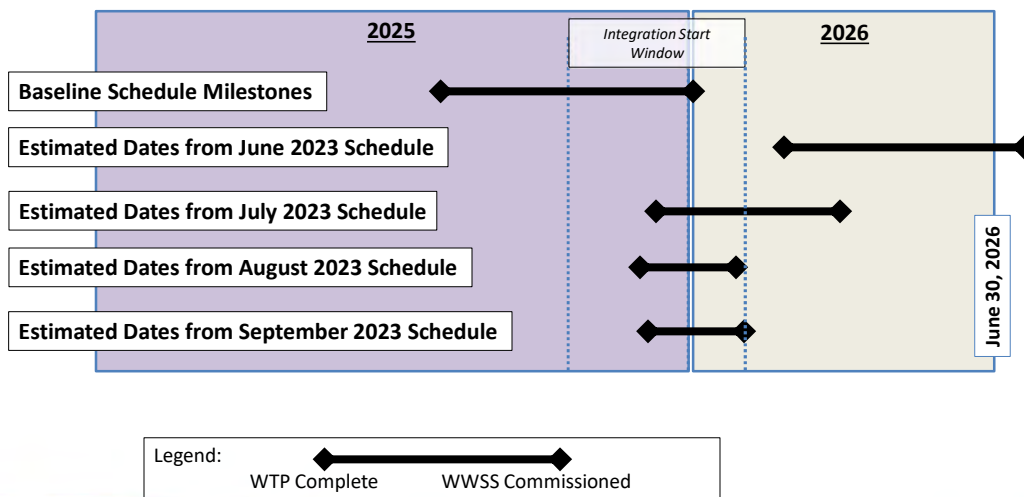
**5A. Water Treatment Plant Schedule Recovery**  
 Progress Update – *David Kraska*

December 7, 2023

1

**WTP and System Commissioning Schedule Status**

December 2023 – **No Change** from November 2023, Contractor Hired New Schedule Team



2

## On-going Contractor Coordination

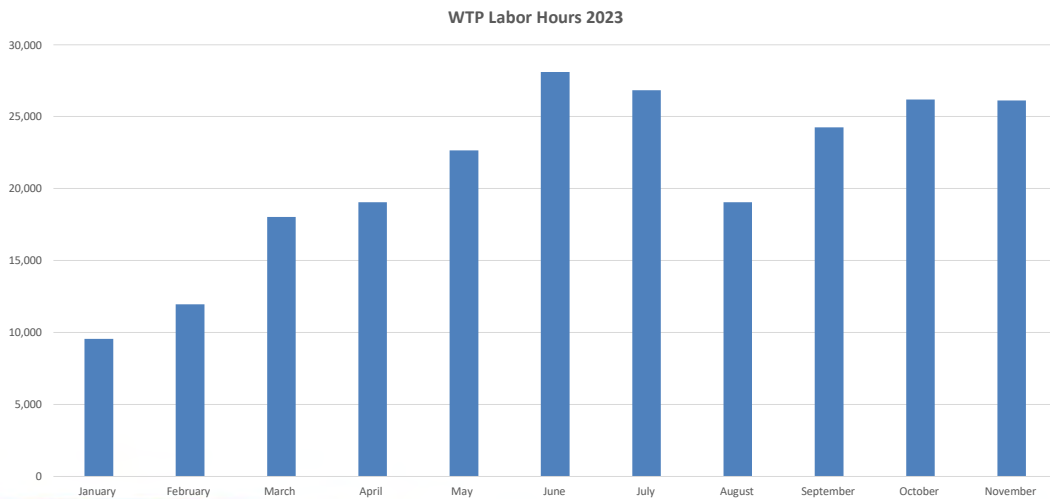
December 2023 – No Change from November 2023, Contractor Hired New Schedule Team

- Delay Prevention:
  - CM Team and Design Engineer prioritizing urgent field issue resolution
  - Weekly RFI and submittal prioritization with Contractor, Design Engineer, and CM Team
  - CM Team participation in subcontractor coordination meetings
- Schedule Recovery Activities

| Activity   | Status                     | Potential Schedule Improvement | Potential Cost Impact |
|--|----------------------------|--------------------------------|-----------------------|
| Optimizing schedule logic for future activities    | Ongoing through early 2024 | None to Medium                 | 0                     |
| Construction technique changes                     | Go / No-Go by end of 2023  | Low to Medium                  | \$                    |
| Coating product substitution                       | Go / No-Go by end of 2023  | None to Low                    | \$                    |
| 6-day workweek or second shifts for certain trades | In review through end 2023 | Medium to High                 | \$\$                  |

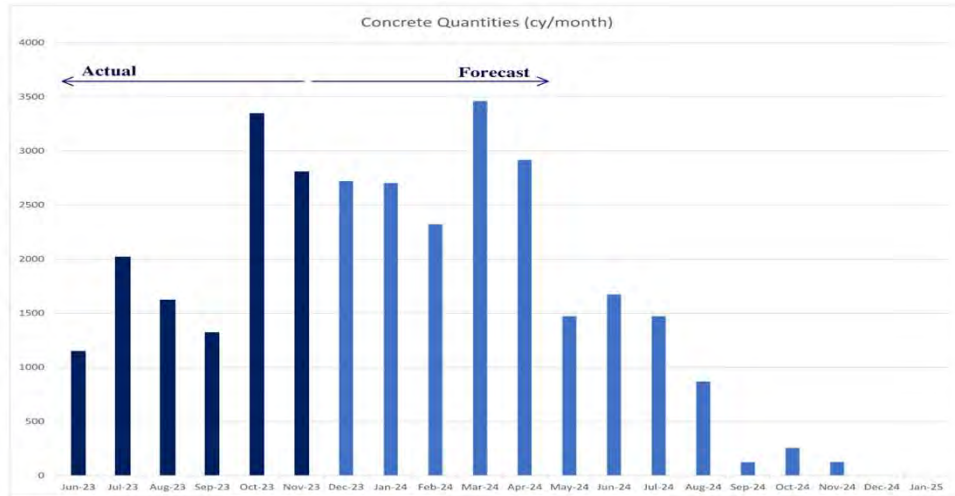
3

## WTP\_1.0 Craft Labor Force



4

# Concrete Quantities by Month



5



6

# Willamette Water Supply System Commission

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**STAFF REPORT**

**To:** WWSS Board of Commissioners  
**From:** Justin Carlton, CMA, TVWD Interim Chief Financial Officer  
**Date:** December 7, 2023  
**Subject:** WWSP Performance Audit

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**Key Concepts:**

- Tualatin Valley Water District (TVWD) engaged its auditors Moss Adams, LLP (Moss Adams), to conduct a performance audit of the Willamette Water Supply Program (WWSP) to verify the effectiveness and efficiency of internal controls, and to provide recommendations for improvement.
- The performance audit concluded that the WWSP and TVWD's accounting staff have adhered to the policies and procedures established under the Willamette Water Supply System (WWSS) Intergovernmental Agreement (IGA), WWSP Program Management Plan, and Management Authority Matrix (MAM), and that internal controls have been effectively maintained.
- The auditor recommended that the WWSS Board consider either formal adoption of the cost-shares allocation methodology or grant the WWSS Management Committee or Finance Committee the authority to approve the methodology established and maintained by the Managing Agency (TVWD). WWSS Board direction on this recommendation is requested.

**Background:**

In March of 2023, TVWD engaged its auditors Moss Adams, to conduct a performance audit of the WWSP for the purposes of verifying the effectiveness and efficiency of the internal controls established by the Program and within TVWD's accounting group, and to provide recommendations for improvement. The audit had three objectives:

1. Validate the methodology used to allocate expenditures to each partner.
2. Ensure expenditures were used for approved purposes set forth in the WWSS IGA and allocated to the proper cost category.
3. Validate the compliance of policies and procedures with emphasis on construction contract compliance as set forth in the MAM and the WWSS IGA Exhibit 5.

The audit was conducted in accordance with Generally Accepted Government Accounting Standards. Those standards require that the audit obtain sufficient and appropriate evidence to provide a reasonable basis for the findings and conclusions based on the audit objectives. Moss Adams sampled sixty-two expenditures from fiscal year 2020 totaling \$29.8 million. Additionally, they sampled twenty contracts to verify policy and procedure compliance. The WWSP provided over 500 documents for review and participated in several interviews along with TVWD accounting staff.

After performing a comprehensive review of the sampled transactions and supporting documents, Moss Adams concluded that there were no exceptions to the stated audit objectives, WWSP and TVWD's accounting staff have

adhered to the policies and procedures established under the WWSS IGA, WWSP Program Management Plan, and MAM, and that internal controls have been effectively maintained.

Relating to Objective 1, the cost shares allocation, Moss Adams made a recommendation for improvement regarding formal adoption, with two viable options to accomplish it:

Option 1: The WWSS Board could formally adopt the cost-share allocation methodology, as developed by TVWD with consensus from the WWSS Finance and Management Committees.

Option 2: The WWSS Board could explicitly grant the WWSS Finance or Management Committee the authority to approve the methodology.

As an alternative to Moss Adams' recommendation:

Option 3: The WWSS Board could choose not to take any action.

The cost-share allocation methodology is a temporary process that will no longer be necessary after the WWSS construction work is completed. Additionally, it was developed with the consensus of all the partners and has been in standard operation since 2020. The WWSS Finance Committee is in the process of developing long-term financial procedures for allocating future operating and capital costs for the WWSS, which will be presented to the WWSS Board for adoption upon completion. Given the limited remaining use of the cost-share allocation and its accepted use among the partners, staff recommends that the WWSS Board take no action on the auditor's recommendation.

Staff will make a presentation at the December 7, 2023 WWSS Board meeting to provide further information on the audit and this recommendation. Meanwhile, for additional context, please refer to the Management Response to this recommendation in the attached final report, on page 6.

WWSP staff request WWSS Board direction regarding whether the cost-share allocation methodology should be adopted, explicit authority be granted to the WWSS Management Committee by resolution, or acknowledge no action be taken. If WWSS Board action is required, a business agenda item will be presented at next WWSS Board meeting (February 1, 2024).

**Budget Impact:**

There is no budgetary impact from this informational item.

**Staff Contact Information:**

David Kraska, P.E., WWSP Program Director; 503-941-4561; david.kraska@tvwd.org

Justin Carlton, CMA, TVWD Interim Chief Financial Officer; 503-848-3070; justin.calton@tvwd.org

**Attachments:**

- Exhibit A: WWSP Performance Audit Final Report



FINAL REPORT

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**Tualatin Valley Water District**  
TUALATIN VALLEY WATER DISTRICT (TVWD)  
WILLAMETTE WATER SUPPLY SYSTEM (WWSS) PERFORMANCE AUDIT

October 5, 2023

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Moss Adams LLP  
805 SW Broadway, Suite 1400  
Portland, OR 97205  
(503) 242-1447

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# I. EXECUTIVE SUMMARY

## A. SUMMARY OF RESULTS

Moss Adams LLP (Moss Adams) was contracted by the Tualatin Valley Water District (TVWD) to perform performance audit services related to the agreement for the design and construction of the Willamette Water Supply Program, specifically, the Willamette Water Supply System Intergovernmental Agreement (the Agreement). The Agreement included provisions for the construction of the Willamette Water Supply System (WWSS), including intake and transmission facilities, a water treatment plant, and reservoir facilities. This audit took place between March 2023 and August 2023.

Performance audit procedures described in this report cover the period from July 1, 2019 through June 30, 2020. Our procedures covered both expenditures and the effectiveness and efficiency of internal controls. Based on the performance audit procedures performed and the results obtained, we identified the following:

| OBJECTIVE NO. | OBJECTIVE CATEGORY              | RESULT DESCRIPTION   | RESULT OUTCOME                    |
|---------------|---------------------------------|--|-----------------------------------|
| 1             | Report Calculation Validation   | Facility-related costs and system-wide costs were correctly allocated in accordance with Baseline Cost Shares Models as approved by the Management Committee and Finance Committee. However, this methodology had not been amended into the Agreement and approved by the WWSS Board, or, authorization authority had not been formally granted to the Finance and Management Committees to approve the methodology. | <b>Improvement Recommendation</b> |
| 2             | Expenditure Compliance          | Costs were used for approved purposes as set forth in the Agreement, allocated to the proper cost category, and allocated to each party in accordance with the WWSS Cost Share Allocation Methodology, or approved methodology.  | <b>No Exception</b>               |
| 3             | Policy and Procedure Compliance | Contracts and change order controls were compliant with policies and procedures as described in the Management Authority Matrix that defines approval authorities, including signature authority levels as outlined in Exhibit 5 of the Agreement.   | <b>No Exception</b>               |

## B. STATEMENT OF COMPLIANCE WITH GAGAS

We conducted this audit in accordance with Generally Accepted Government Auditing Standards (GAGAS). Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.





## C. COMMENDATIONS

Although the focus of this internal audit was to identify opportunities for improvement, it is important to note the areas of commendable operations. TVWD should be commended for the following accomplishments:

- The TVWD and the project management team consist of highly experienced development professionals with a strong track record of successful completed projects.
- TVWD and the project management team have proactively developed and implemented cost allocation methodologies that can be used as a basis for updating the Agreement to support a successful Willamette Water Supply Program.

We would like to thank TVWD staff and management for their willingness to assist with this project.



## II. DETAILED REPORT

### A. INTRODUCTION

Moss Adams was contracted by TVWD to perform audit services related to the Agreement for the design and construction of the Willamette Water Supply Program. This agreement included provisions for the construction of the WWSS, including intake and transmission facilities, a water treatment plant, and reservoir facilities. During this audit, we evaluated and tested select key controls related to the Willamette Water Supply Program, including evaluating the allocation of program expenditures and purchasing controls in compliance with the Agreement. This audit took place between March 2023 and August 2023.

### B. BACKGROUND

Effective July 1, 2019, TVWD, the City of Hillsboro, and the City of Beaverton (the Parties) entered into the Agreement for the ownership, management, and operation of the WWSS. Exhibit 1 of the Agreement outlines the approach used to define ownership allocations specific to each element of the WWSS: Raw Water Pump Station, Raw Water Pipeline, Water Treatment Plant, Finished Water Pipeline – Pumped, Reservoirs, Finished Water Pipeline – Gravity, Turnouts, and the Distributed Controls System; and explains the formulas used to calculate ownership allocations.

### C. OBJECTIVES

Our objectives for this audit were related to the Agreement, construction of the WWSS, and related processes. Specifically, the audit focused on:

- Evaluating the compliance of WWSS ownership allocation percentages and associated calculations reported in the WWSS Cost Share Calculation Report dated January 4, 2020, for compliance with Exhibit 1 of the Agreement, or approved allocation methodology by appropriate parties.
- Reviewing reported expenditures at a transaction level and validating funds were used for approved purposes set forth in the Agreement and allocated to the proper cost category including (1) project-specific costs, (2) system-wide costs, (3) general real estate costs, (4) specific real estate costs, and (5) non-capitalized expenditures.
- Validating the use of policies and procedures of sampled construction contract amounts with specific emphasis on construction compliance (i.e., contracts, change orders, expenditure management controls, etc.) with the Management Authority Matrix that defines approval authorities, including signature authority levels (or tiers) outlined in Exhibit 5 of the Agreement.

### D. SCOPE AND METHODOLOGY

The scope of this project was focused on the Agreement related to the construction of the WWSS. We conducted interviews with personnel within TVWD, and we reviewed the TVWD's applicable policies, procedures, and forms.



The procedures performed included:

- **Report Calculation Validation:** We evaluated the WWSS ownership allocation by percentages and associated calculations reported in the WWSS Cost Share Calculation Report dated January 4, 2020, for compliance with Exhibit 1 of the Agreement or in accordance with Baseline Cost Shares Models as approved by Management Committee and Finance Committee.
- **Expenditure Compliance:** We obtained a listing of all WWSS expenditures for the fiscal year of 2020 (FY20) and, using audit command language, selected a statistical, monetary unit sample of 62 transactions totaling \$29,810,483, obtained all supporting documentation that was available to support the related expenditures, and tested for the following:
  - Reviewed supporting documents (e.g., invoices, proof of payments, contracts) to ensure transactions were correctly recorded and reflected the actual cost incurred.
  - Determined that the expenditure allocated to the correct program cost code.
  - Compared the percentage that each party was allocated for the expenditure on the Cost Share Calculation Report to the calculated and compliant allocation percentage within the Cost Shares Baseline Report (Baseline Report).
- **Policy and Procedure Compliance:** From the sampled expenditures selected for expenditure compliance testing, we selected 20 contracts and performed the following:
  - Verified that contracts and change orders were fully executed.
  - Verified that contracts and change orders were adequately authorized in compliance with the Management Authority Matrix outlined in Exhibit 5 of the Agreement.
  - Recalculated the mathematical accuracy of change orders being applied to the contract sum.

## E. WWSS COST SHARE ALLOCATION METHODOLOGY

The Agreement, executed on July 1, 2019, was established subsequent to the commencement of the WWSS construction. As a result, the Agreement did not include a comprehensive record of project cost share allocations as detailed in Exhibit 1. Moreover, the Agreement has not been amended to encompass cost components and allocations that extended beyond the original Ownership Allocation Summary that was included in Exhibit 1.

For example, the Ownership Allocation Summary did not align with construction packages for pipeline projects and facility-related costs, nor did it address system-wide costs. Due to this omission, the Agreement could not serve as a compliance standard for cost allocations in this audit. In response, TVWD developed the Baseline Cost Shares Model to compute the allocation of cost shares for each participating party that align with the Willamette Water Supply Program's construction packages and the party's proportional share of system-wide costs. This methodology was presented to and approved by all parties at the Management Committee Meeting dated March 19, 2020. The Management Committee includes individuals from each party, specifically, Tom Hickmann (TVWD), Chad Lynn (City of Beaverton), and Niki Iverson (City of Hillsboro). Additionally, the Finance Committee reviewed and approved the methodology on July 17, 2020, which includes the Chief Financial Officer (TVWD), Financial Operations Manager (TVWD), Finance Director (City of Beaverton), and Business and Administration Manager (City of Hillsboro).



The Baseline Cost Shares Model aggregates cost data for each distinct cost category at both project and subproject tiers. Subsequently, it apportions costs among the Parties, factoring in variables such as location, length, capacity, and ownership percentage. On an annual basis, TVWD conducts a true-up of the Baseline Cost Shares Model to reflect alterations in project cost data aligned with the annual baseline changes. This involves adjusting the cost share percentages to align with the actual costs accrued up to that point. The process serves to rectify previous percentage distributions and ensures the precise and equitable allocation of costs to each respective party.



### III. AUDIT RESULTS

#### A. OBJECTIVE NO. 1 – REPORT CALCULATION VALIDATION

**1 Facility-related costs and system-wide costs were correctly allocated in accordance with Baseline Cost Shares Models as approved by the Management Committee and Finance Committee. However, this methodology had not been amended into the Agreement and approved by the WWSS Board, or, authorization authority had not been formally granted to the Finance and Management Committees to approve the methodology.**

The Cost Ownership Summary originally outlined in the Agreement did not align with construction packages for pipeline projects and facility-related costs, nor did it address system-wide costs. As a result, TVWD proposed and obtained approval for the Baseline Cost Shares Model at both the Management Committee and Finance Committee levels (see Section 2.E – WWSS Cost Share Allocation Methodology).

We evaluated WWSS cost allocations for compliance with the methodology that was approved at the Management Committee and Finance Committee levels, and validated that costs were correctly allocated in accordance with this methodology.

**Improvement Recommendation:** While the allocation methodology has been approved by both the Management Committee and Finance Committee, we recommend that the allocation methodology be presented to and approved by the WWSS Board, or, the Board should formally establish approval authority to a committee, such as the Management Committee. The Board could adopt the methodology by resolution or amendment to Exhibit 1 of the IGA.

**Management Response:** As the Managing Agency TVWD was granted the authority to develop the cost-share methodology under Section 6.6.6:

**Power of the Managing Agency**

*Perform financial planning and management for the commission and WWSS operations including payment of invoices, accounting, reporting, financial oversight and budgeting in accordance with Oregon Law.*

Additionally, Section 8.8.2 states The Parties shall true up expenditures incurred prior to the effective date of this Agreement...The amount of these true up expenditures ...for each Party is set forth in Exhibit 7...the Managing Agency will provide an invoice to each party.

The table in Exhibit 7 was left blank in the executed IGA and it was incumbent upon the Managing Agency to complete the calculations to provide the invoices to each Party. Developing the cost-share methodology was a necessary precondition in calculating the true-up invoices. The cost-share methodology was developed in manner that conformed with the ownership allocations identified in Exhibit 1 of the IGA.

To build consensus for the cost share-methodology, TVWD engaged all the Parties through the WWSS Finance Committee and presented the methodology through a series of workshops in early 2020. At the conclusion of the workshops, the Finance Committee agreed with the methodology and presented its conclusions to the WWSS Management Committee at the March 19, 2020 meeting. That presentation has been provided for your review.

If the Management Committee had deemed it necessary, the cost-share methodology could have been adopted by the WWSS Board through resolution or modifying an exhibit. Only amendments to the body of the IGA require ratification by each of the Party's respective governing bodies and would not be necessary in this regard.





## B. OBJECTIVE NO. 2 – EXPENDITURE COMPLIANCE (NO EXCEPTIONS)

**2** Costs were used for approved purposes as set forth in the Agreement, allocated to the proper cost category, and allocated to each party in accordance with the WWSS Cost Share Allocation Methodology. No exceptions were noted.

We evaluated and substantiated WWSS project expenditures and assessed for the allowability of the cost with the Agreement and determined that the cost category was properly allocated across cost categories and parties. During our review, we identified one project cost code (W525-1000 – PLM\_5.2) that initially received an incorrect cost allocation on the FY20 Baseline Report; however, as TVWD performs an annual true-up process of the Baseline Report, this was later corrected through the adjustment process.

## C. OBJECTIVE NO. 3 – POLICY AND PROCEDURE COMPLIANCE (NO EXCEPTIONS)

**3** Contracts and change order controls were compliant with policies and procedures as described in the Management Authority Matrix that defines approval authorities, including signature authority levels as outlined in Exhibit 5 of the Agreement. No exceptions were noted.

We reviewed project contracts and change orders for compliance with the policies and procedures described in the Management Authority Matrix that defines approval authorities, including signature authority levels as outlined in Exhibit 5 of the Agreement. Per Exhibit 5, Section II of the Agreement, “the Managing Agency will present contract awards in excess of \$500,000 to the Board for Approval. Contract awards for \$500,000 or less may be approved and executed by the Managing Agency without necessity of Board action.” Additionally, Section III states “any change order or amendment to a contract or procurement with an amended total of \$500,000 or less may be approved by the Managing Agency in its discretion without Board approval. If the change order or amendment results in an amended total of more than \$500,000, then approval by the Board is required.”

In addition to the above, we evaluated the contract and change order controls for compliance with the Management Authority Matrix that was adopted by the WWSS Board of Commissioners as of September 5, 2019. No exceptions were noted.



**Willamette Water Supply**  
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## 5B. WWSP Performance Audit – *Justin Carlton*

December 7, 2023

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## WWSP Performance Audit

- In March of 2023, TVWD engaged Moss Adams, LLP to conduct a performance audit of the WWSP to ensure effective internal controls and recommend improvements.
- Audit Objectives:
  1. Validate Cost Report Calculations
  2. Ensure Expenditure Compliance
  3. Ensure Policy and Procedure Compliance

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2

## Audit Sample Information

- 62 transactions totaling \$29.8 million from FY20
- 20 contracts for policy and procedure compliance
- WWSP provided over 500 documents including:
  - Purchase orders
  - Invoices
  - Payments records
  - Contracts
  - Change orders

3

## Results Summary

| Objective                          | Result Outcome             |
|------------------------------------|----------------------------|
| 1. Report Calculation Validation   | Improvement Recommendation |
| 2. Expenditure Compliance          | No Exceptions              |
| 3. Policy and Procedure Compliance | No Exceptions              |

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## Audit Recommendation – Report Calculation Validation

- “... costs ... were correctly allocated in accordance with Baseline Cost Shares Models as approved by the Management Committee and Finance Committee”
- Methodology had not been amended into the Agreement and approved by the WWSS Board, or, authorization authority had not been formally granted to the Finance and Management Committees to approve the methodology
- Recommendation:
  - Obtain WWSS Board approval of cost-allocation methodology
  - Board grant approval authority to Management Committee

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## Management Response to the Recommendation

- Contend that the WWSS IGA grants authority to the MA (TVWD) to develop and implement the cost-share methodology
- Methodology reviewed and approved by the Finance and Management Committees prior to implementation

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## Possible WWSS Commission Board Actions in Response to the Audit Recommendation

|   | Option   | Actions   |
|---|--|---|
| 1 | WWSS Board to formally adopt the cost-share methodology through resolution | Staff will prepare a resolution for the Board to act on at the February 1, 2024 meeting                                 |
| 2 | WWSS Board for formally grant authority to the Management Committee        | Staff will prepare a resolution for the Board to act on at the February 1, 2024 meeting                                 |
| 3 | No additional action   | Staff continue to manage sharing WWSP costs in accordance with the approved methodology that has been in use since 2020 |

## Staff Recommendation

- Given the limited remaining use of the cost-share allocation and its accepted use among the partners, staff recommends that the WWSS Board take no action on the auditor's recommendation.

**QUESTIONS?**

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# Willamette Water Supply System Commission

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**STAFF REPORT**

**To:** WWSS Board of Commissioners

**From:** Joelle Bennett, P.E., WWSP Assistant Program Director

**Date:** December 7, 2023

**Subject:** Anticipated Business Agenda Items for the February 2024 Meeting of the WWSS Board of Commissioners

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**Key Concepts:**

The next Willamette Water Supply System (WWSS) Commission Board meeting agenda is anticipated to include staff recommendations for the following business agenda items:

1. Election of Officers
2. WWSS Annual Work Plan and Budget for Fiscal Year 2024-25 and WWSP Capital Improvement Plan (Baseline 9.0)
3. Approve WTP\_1.0 GMP3 Contract for Construction

**Background:**

There are three anticipated business agenda items for the February 1, 2024, meeting of the WWSS Board of Commissioners. Due to the dynamic nature of the WWSS work, request for approval of some items may be delayed or new items may emerge on the business agenda for the next meeting. WWSS staff strive to provide preliminary information one meeting prior to requesting action and a full staff report describing the recommended action during the appropriate month.

1. Election of Officers

As outlined in today's General Manager's report, it is a requirement in the WWSS Intergovernmental Agreement to elect the Commission Chair and Vice Chair at the first meeting of the calendar year. At the February WWSS Board meeting, we will hold Board officer elections.

2. WWSS Annual Work Plan and Budget for Fiscal Year 2024-25 and WWSP Capital Improvement Plan (Baseline 9.0)

WWSP staff are preparing the WWSS Fiscal Year 2024-2025 (FY2025) Work Plan and Budget. The WWSS Annual Work Plan provides the proposed scope of work to be performed by the Managing Agency for FY2025, in accordance with the WWSS Intergovernmental Agreement (IGA) and in alignment with the WWSP annual baseline schedule and budget.

The WWSP team is developing a rebaseline schedule and budget (Baseline 9.0) reflective of the current market conditions, construction environment, and WWSP construction progress. During the execution of the WWSP, Baseline 9.0 satisfies the WWSS IGA requirement for a Capital Improvement Plan and Budget. An initial draft

of Baseline 9.0 is scheduled to be provided to the Partners on or around December 22, 2023, and the official Baseline 9.0 will be released in January 2024.

As early as the February WWSS Board meeting, WWSP staff will present the WWSS Annual Work Plan and Budget for FY2025 and WWSP Capital Improvement Plan (Baseline 9.0), with a recommendation to the Board to approve.

### 3. Approve WTP\_1.0 GMP3 Contract for Construction

The WTP\_1.0 project is being delivered using the Construction Manager/General Contractor (CM/GC) method. The CM/GC contractor, Sundt Construction, Inc., has been onboard since January 2019 participating in the WTP\_1.0 final design. After the 100 percent design was completed in July 2021, the CM/GC prepared the first Guaranteed Maximum Price (GMP) for construction in late 2021. GMP 2 will be presented to the Board at its December meeting. GMP 3 includes startup and commissioning of the finished water system.

As early as the February WWSS Board meeting, WWSP staff will present the GMP 3 contract, with a recommendation to the Board to approve.

#### **Budget Impact:**

Anticipated costs for the actions described in this staff report are reflected in the WWSP FY2024 budget and the overall program baseline budget.

#### **Staff Contact Information:**

David Kraska, P.E., WWSS General Manager, 503-941-4561, david.kraska@tvwd.org

Joelle Bennett, P.E., WWSP Assistant Director, 503-941-4577, joelle.bennett@tvwd.org

#### **Attachments:**

- Approvals and Procurement Forecast (December 2023 – April 2024)





**Approvals and Procurement Forecast: December 2023 through April 2024**

This report provides a five-month projection of (1) forthcoming actions under the WWSS Management Authority Matrix and (2) ongoing and forthcoming procurements.

- a = Actual date
- e = Email approval
- FC = Finance Committee
- LCRB = Local Contract Review Board
- MC = Management Committee
- N/A = Not applicable
- OC = Operations Committee

- Rec. = Recommendation
- t = Tentative date
- TBD = To be determined; sufficient information not available to project a date
- Note: Dates in **red text** indicate meetings needed outside the normal meeting schedule

| Type  | Description  | Projected Action | Body/Position (projected action date) |                 |             |
|---|--|------------------|---------------------------------------|-----------------|-------------|
|   |  |                  | Program Director                      | WWSS Committees | WWSS Board  |
| <b>Program Baseline or Related Plans</b> (above Program Director's Authority)     | 1. WWSP 2024 Rebaseline Schedule and Budget and WWSS Fiscal Year 2024-2025 Work Plan and Budget  | Approve          | N/A                                   | 1/18/2024 t     | 2/1/2024 t  |
|   |  | Execute          | N/A                                   | N/A             | N/A         |
| <b>Real Estate</b>  | 2. None  | Approve          | N/A                                   | N/A             | N/A         |
| <b>IGAs, MOUs, Permit Commitments, &amp; Similar Agreements</b>                   | 3. PLM_4.3 City of Tigard Temporary Commissioning Discharge Facility IGA   | Approve          | N/A                                   | 5/3/2024 t      | 6/6/2024 t  |
|   |  | Execute          | 6/7/2024 t                            | N/A             | N/A         |
| <b>Contracts</b> (above Program Director's Authority)                             | 4. Water Supply Integration Communication Plan, Toolkit, and Engagement Support <ul style="list-style-type: none"> <li>• Goal: Provide communications planning, materials, and public engagement support for Water Supply Integration</li> <li>• Value: \$416,730</li> <li>• Contractor: Water Systems Consulting, Inc.</li> </ul> | Approve          | N/A                                   | 10/19/2023 a    | 11/2/2023 a |
|   |  | Execute          | 11/2/2023 a                           | N/A             | N/A         |
| <b>Contract Amendments and Change Orders</b> (above Program Director's Authority) | 5. WTP_1.0 GMP2 for Construction <ul style="list-style-type: none"> <li>• Goal: Construct WTP_1.0 which covers landscaping, asphalt, curbs/sidewalks, striping, signage, and fencing</li> <li>• Value: \$11.58 M</li> <li>• Contractor: Sundt Construction</li> </ul>  | Approve          | N/A                                   | 11/28/2023 a    | 12/7/2023 t |
|   |  | Execute          | 12/8/2023 t                           | N/A             | N/A         |
|   | 6. WTP_1.0 GMP3 for Construction <ul style="list-style-type: none"> <li>• Goal: Construct WTP_1.0 which covers finished water system commissioning</li> <li>• Value: TBD</li> </ul>  | Approve          | N/A                                   | 1/18/2024 t     | 2/1/2024 t  |
|   |  | Execute          | 2/2/2024 t                            | N/A             | N/A         |
| <b>Local Contract Review Board (LCRB) Actions</b>                                 | 7. None  | Approve          | N/A                                   | N/A             | N/A         |
|   |  | Execute          | N/A                                   | N/A             | N/A         |
| <b>Other</b>  | 8. None  | Approve          | N/A                                   | N/A             | N/A         |
|   |  | Execute          | N/A                                   | N/A             | N/A         |

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**Willamette Water Supply System Commission  
Board Meeting**

**December 7, 2023**

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