

Willamette Water Supply System Commission

Board Meeting
Thursday, September 1, 2022
12:00 PM

Microsoft Teams Meeting

Willamette Water Supply System Commission

(this page intentionally left blank)

Willamette Water Supply System Commission
Board Meeting Agenda
Thursday, September 1, 2022 | 12:00 – 1:30 PM
Microsoft Teams Meeting

If you wish to attend via conference call and need dial-in information, please contact annette.rehms@tvwd.org or call 971-222-5957 by 10:00 a.m. on September 1, 2022. 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. **All testimony is electronically recorded.**

REGULAR SESSION – 12:00 PM

CALL TO ORDER

1. GENERAL MANAGER'S REPORT – Dave 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 August 4, 2022 meeting minutes

4. BUSINESS AGENDA

- A. Approve RWF_1.0 GMP No.2 for Construction – *Mike Britch*

5. INFORMATION ITEMS

- A. The next Board Meeting is scheduled on October 6, 2022, via Microsoft Teams

6. COMMUNICATIONS AND NON-AGENDA ITEMS

- A. None scheduled

ADJOURNMENT

Willamette Water Supply System Commission

(this page intentionally left blank)

GENERAL MANAGER'S REPORT

To: WWSS Board of Commissioners
From: David Kraska, P.E., WWSS General Manager
Date: September 1, 2022
Subject: Willamette Water Supply System General Manager's Report

This report provides an overview of some of the current Willamette Water Supply System (WWSS) work efforts under the direction of this Commission, beginning with a Safety Minute presentation.

- 1. Permitting and Communications Updates** – The Willamette Water Supply Program (WWSP) permitting efforts remain very active. 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.

Permitting highlights:

- Staff's efforts were heavily focused this month on the Metzger Pipeline East (MPE) project, securing permits for the Pressure and Flow Control Facility along MPE_1.2; as well as the Right of Way Access Permit for the Lancaster Staging Area and the Right of Way Utility Permit Amendment for the Portland General Electric Line installation both along MPE_1.3.
- Staff submitted a permit modification to the US Army Corp of Engineers (USACE) and Department of State Lands (DSL) for the installation of the temporary major blowoff at the Tualatin River on the former Azalea Farm site now owned by the City of Tigard that is planned as the City's future Laisch Lane Park. The major blowoff will be needed for pre-operational dewatering of the Transmission Pipeline as part of the start-up and commissioning process. Staff consulted with USACE, DSL, Oregon Department of Fish and Wildlife, Clean Water Services, Tualatin National Wildlife Refuge, and City of Tigard to select a preferred location for the blowoff that would be the least potentially impactful to habitats and life stages of salmon and other listed sensitive

Communications highlights:

- Communications staff coordinated several WWSS Water Treatment Plant (WTP_1.0) site tours this month. On August 8 staff provided a tour to State Representatives Schouten (District 27) and Campos (District 28); State Senator Lieber (District 14); and Patrick Brennan of the Oregon Legislative Policy and Research Office. On August 11 staff provided a tour to State Representatives Neron (District 26), and Grayber (District 35), and State Senator Sollman (District 15). Briefings and site visits with legislators help position the WWSP for funding opportunities, highlight the importance of the seismically resilient regional water supply system and build confidence in the WWSP's ability to complete the project by July 2026.

- 2. Planned Business Agenda Item** – The Approvals and Procurements Forecast (Forecast) presents WWSP activities that have recently been approved or are scheduled for approval over the next two months by either the WWSP Director/WWSS General Manager, WWSS Committees, or the WWSS Board. There are no planned business agenda items for the October WWSS Commission Board meeting as shown in the attached Forecast. Our next anticipated business agenda item is in December, and it will be previewed at the October Board meeting.

- 3. Update on Possible Move to Hybrid Meetings** – At the May 2022 WWSS Commission Board meeting, Commissioners expressed support to switch to bi-monthly meetings beginning in October and to continue meeting remotely using Microsoft Teams with the possibility of meeting in person a few times per year once the TVWD Boardroom has been equipped to facilitate hybrid meetings. Due to delays in receiving the necessary equipment, the TVWD Boardroom will not be equipped for hybrid meetings until late this year. We will provide another status update at the February 2023 WWSS Commission Board meeting.
- 4. Construction Status Updates** – 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 these construction sites. A copy of this presentation is attached to this General Manager's report.

One particular highlight for the Commissioners' awareness relates to an incident that happened on July 29th. Construction crews on the Highway 99 Crossing (PLM_4.1) project experienced unexpected soil movement. As the auger boring head pushed through the back of the receiving shaft, a portion of the shaft wall sloughed, and there were concerns that the soil movement had compromised a traffic lane. No one was hurt. Construction crews quickly closed that traffic lane and stopped construction work in the area. Working with our partner Washington County, and the road owner, Oregon Department of Transportation, the team evaluated the issue and developed a solution that allowed the traffic lane to be reopened by rush hour. The roadway was not damaged by the incident.

Due to the potential for media attention, the notification was shared with our Management Committee members and some Board members may have been subsequently informed. In the future, the Management Committee members will coordinate on sharing these types of notices with their respective Board members so that all Commissioners are equally informed.

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

Date of Report: August 18, 2022

Permits and Approvals Recently Granted

Agency	Projects Involved	Permit or Approval Granted
City of Beaverton	MPE_1.2	Building Permit, PFC Facility
City of Beaverton	MPE_1.3	Right-Of-Way Permit
WCLUT	MPE_1.3	Right of Way Access Permit - Lancaster Staging Area and Right-of-Way Utility Permit Amendment for PGE line installation

Permits and Approvals Submitted

Agency	Projects Involved	Permit or Approval Submitted
City of Beaverton	MPE_1.2	PFC Facility Electrical Permit
USACE/DSL	System-wide	Major Permit Modification Bundle 8, Tualatin River Blowoff

Permits and Approvals in Progress

Agency	Projects Involved	Permit or Approval in Progress
City of Beaverton	MPE_1.2	PFC Facility Mechanical and Plumbing permits
WCLUT	MPE_1.3	Electrical and Temporary Road Closure permits; Beaverton Noise/Night Variance Permit
WCLUT	PLM_3.0	Noise Variance
WCLUT	PLM_4.2	Cipole Night Variance; Sherwood Right of Way and Temporary Road Closure permits; Tualatin Detour Route and Sign Placement Permit (Herman and 124th)
WCLUT	PLM_4.3	Electrical, Noise Variance, Road Closure Permit for Roy Rogers Road; ODOT Detour Permit for Roy Rogers Road
WCLUT	PLW_2.1	ROW Access Permit; Hillsboro Tree Care, Type I Land Use, Building, Private Utility permits
WCLUT	RES_1.0	Building Permits (3)

Anticipated Approvals

Agency	Projects Involved	Permit or Approval Anticipated
City of Beaverton	MPE_1.2	PFC Facility Electrical Permit
City of Wilsonville	PLM_1.3	Erosion and Sediment Control, Public Works Construction, Land Use (2) permits
City of Sherwood	WTP_1.0	Engineering Plan Review, Exterior Plumbing, Interior Plumbing, Mechanical, 9 Building permits; WaCo Facility Permit
City of Sherwood	PLM_4.3	Temporary Road Closure, Engineering permits; Tualatin Detour Route and Sign Placement Permit (Herman and 124th); Union Pacific RR Right of Entry permit and Utility Occupancy Licenses for fiber optic and stormwater pipe (WaCo to obtain)
WCLUT	MPE_1.3	Grading Permit - Lancaster Staging Area
WCLUT	PLM_4.3	Noise Variance, Road Closure permits; ODOT Detour Permit; Sherwood Engineering Permit
WCLUT	PLW_2.1	ROW Access Permit; Hillsboro Tree Care, Building, Grading and Erosion Control, Public Infrastructure, Private Utility permits
WCLUT	RES_1.0	Building Permits (2)
WCLUT	PLM_3.0	WaCo Noise Variance

Willamette Water Supply Program Projects in Construction – Recent Status Update

Date of Report: August 18, 2022

Project	Description	Progress Since Last Month
1. RWF_1.0	Raw Water Facilities project located at the Willamette River Water Treatment Plant	<ul style="list-style-type: none"> - In-water pile driving completed, and marine contractor demobilized - Completed earthwork cuts to subgrade elevations at upper site - Began Upper Site Utilities work including: <ul style="list-style-type: none"> · 4" sanitary sewer, · 2" potable water, · 12" & 18" storm drain, and · raw water sample lines - Began work on Lower Site stormwater improvements - Preparing for upcoming GMP#2 package
2. PLM_1.3	Raw water pipeline project in Wilsonville from Wilsonville Road to Garden Acres Road	<ul style="list-style-type: none"> - Potholing utility crossings - Processing PCOs, submittals and RFIs - Steel pipe shop drawings - Outside utility relocating fiber optic line conflict
3. WTP_1.0	Water Treatment Plant project, located in City of Sherwood, near the intersection of SW Tualatin-Sherwood Road and SW 124 th Avenue	<ul style="list-style-type: none"> - Continue mass excavation and embankment fill - Continue drilling and controlled rock blasting - Continue rock crushing - Temporary electrical service - Critical submittals including baseline CPM schedule
4. 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"> - Completed trenchless crossing of Hwy 99 - Install 66" waterline inside trenchless casing - Continue Road widening on Roy Rogers Rd. - Continue Road widening on Tualatin-Sherwood Rd.
5. PLM_4.4	Finished water pipeline project being completed in partnership with Washington County's Chicken Creek to Borchers Dr	<ul style="list-style-type: none"> - Processing WWSP submittals and RFIs - Held pre-construction meeting June 14, 2022
6. PLM_4.3	Finished water pipeline project in unincorporated Washington County along Roy Rogers Road	<ul style="list-style-type: none"> - Access and haul roads for waterline construction - Secant pile installation for north tunnel shaft - Groundwater observation wells - Clearing and grubbing alignment - Critical submittals
7. RES_1.0/ 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 Clark Hill to SW Rosedale Road at future Cornelius Pass Extension.	<ul style="list-style-type: none"> - Continue installation of 66" waterline – approximately 1800 LF installed - Began second pipeline crew for 66" waterline installation - Mobilized ground improvement subcontractor (cement deep soil mixing) - Continued rock excavation at Reservoir site - Crushing rock on Staging Area #4 - Continued construction of the soil nail/rock bolt retaining wall at the RES_1.0 site

8. PLW_1.3	Finished water pipeline project in South Hillsboro from SW Farmington Road to SE Blanton Street	<ul style="list-style-type: none"> - Completed all testing and disinfection of 66" and 30" lines - Completed Tie-in to PLW_1.1 - Farmington turnout vault piping and electrical work - Marker posts and misc. appurtenances
9. PLW_1.2	Finished water pipeline project in South Hillsboro from TV HWY to Frances Street	<ul style="list-style-type: none"> - Sidewalk and driveways on west side of Cornelius Pass Rd. - Traffic shift for Stage 2 - Overhead and underground utility relocations
10. MPE_1.1/ 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"> - Continue installing 48" WWSP waterline north from 5th Ave. - Continued work on test stations, blowoff assemblies and CAV appurtenance piping - Continue WWSP flowmeter vault construction - City road construction between Allen and Arctic
11. MPE_1.2/ 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"> - Complete shaft and begin tunnel #1 at lower Fanno Creek - 16" COB waterline on Scholls Ferry Rd. - Install 48" open cut waterline north of Hall Blvd. - Install 48" waterline on Scholls Ferry Rd, west of Hwy 217

Willamette Water Supply System Commission

(this page intentionally left blank)

Willamette Water Supply

Our Reliable Water

Safety Minute: First Care: how to assist until help arrives

WWSS Commission Board Meeting
September 1, 2022

1

The importance of providing First Care

- Life-threatening emergencies can happen fast, and emergency responders aren't always nearby.
- Those nearest are best positioned to provide First Care.
- You may be able to save a life by taking these simple actions immediately.



2

Providing First Care until help arrives

1. Call 9-1-1

- Don't assume someone else has already done so
- 911 operators are highly trained and will help you
- Let them coach you through the emergency situation



3

Providing First Care until help arrives

2. Stay safe

- Assess the situation: pause and use all available senses
- Decide whether to stay and help, grab the injured and get to safety, or get yourself to safety



4

Providing First Care until help arrives

3. Stop the bleeding

- Apply steady, firm pressure on the source of bleeding until first responders arrive
- If you can't control the bleeding with manual pressure, consider a tourniquet



Providing First Care until help arrives

4. Position the injured

If there are no head or neck injuries:

- Lay the injured on their side, legs slightly bent, with bottom hand reached outward and head resting near hand
- Raise the chin forward with mouth pointed downward



Providing First Care until help arrives

5. Provide comfort

- Share names and ask basic questions
- Tell them what you know happened, but do not speculate
- Keep them warm and offer a hand to hold



https://community.fema.gov/PreparednessCommunity/s/until-help-arrives?language=en_US

Willamette Water Supply
Our Reliable Water

Approvals and Procurement Forecast: August 2022 through October 2022

This report provides a three-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
Program Baseline or Related Plans (above Program Director's Authority)	1. None	Approve	N/A	N/A	N/A
		Execute	N/A	N/A	N/A
Real Estate	2. None	Approve	N/A	N/A	N/A
IGAs, MOUs, Permit Commitments, & Similar Agreements	3. DCS_1.0 Sherwood Broadband Services IGA	Approve	N/A	MC: 3/18/2021 a	4/1/2021 a
		Execute	8/30/2022 t	N/A	N/A
	4. PLW_1.3 Pahlisch developer agreement	Approve	N/A	N/A	N/A
		Execute	8/30/2022 t	N/A	N/A
Contracts (above Program Director's Authority)	5. WTP_1.0 Materials Testing & Special Inspection <ul style="list-style-type: none"> Goal: Quality Control WTP_1.0 Value: \$2.5M (Estimated) Contractor: TBD 	Approve	N/A	MC: 10/20/2022 t	12/1/2022 t
		Execute	12/9/2022 t	N/A	N/A
Contract Amendments and Change Orders (above Program Director's Authority)	6. RWF_1.0 GMP 2 for Construction <ul style="list-style-type: none"> Goal: Construct RWF_1.0 Value: \$62.0 M Contractor: Kiewit 	Approve	N/A	MC: 8/18/2022 t	9/1/2022 t
		Execute	9/13/2022t	N/A	N/A
Local Contract Review Board (LCRB) Actions	7. None	Approve	N/A	N/A	N/A
Other	8. Operations Staffing Plan Evaluation <ul style="list-style-type: none"> Goal: O&M Staffing Plan Evaluation Value: \$100,000 (Estimated) Contractor: TBD *This item is here for awareness	Approve	N/A	N/A	N/A
		Execute	9/23/2022 t	N/A	N/A

Willamette Water Supply System Commission

(this page intentionally left blank)

Willamette Water Supply

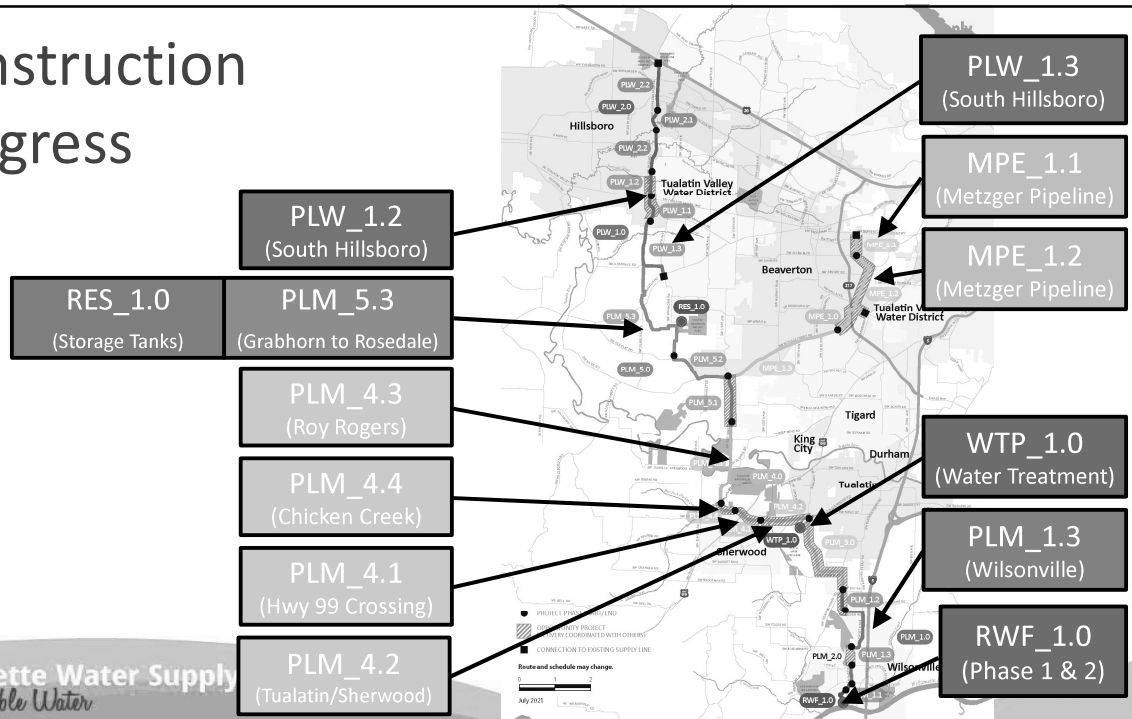
Our Reliable Water

1.A. WWSS General Manager's Report Construction Summary

WWSS Commission Board Meeting
September 1, 2022

1

Construction Progress



2

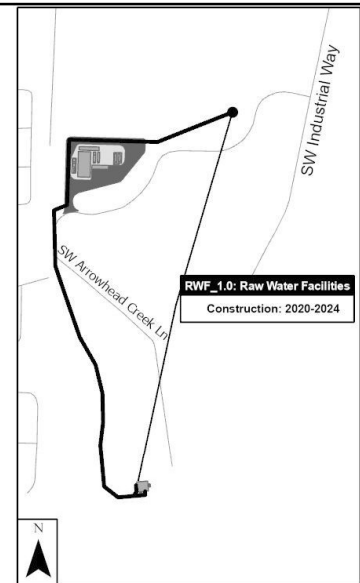
RWF_1.0 (Phase 1.5)

Contractor: Kiewit Infrastructure West Co.

Designer: Black & Veatch

Current and Planned Activities:

- In-water pile driving completed and marine contractor demobilized
- Completed earthwork cuts to subgrade elevations at upper site
- Began Upper Site utilities work including:
 - 4" sanitary sewer
 - 2" potable water
 - 12" & 18" storm drain
 - raw water sample lines
- Began work on Lower Site stormwater improvements
- Preparing for upcoming GMP#2 package



Willamette Water Supply
Our Reliable Water

3

3

Construction Photos – RWF_GMP-1.5

Upper Site Utilities: Backfilling
4" HDPE sanitary sewer and
cleanout risers.



Willamette Water Supply
Our Reliable Water

4

Construction Photos – RWF_GMP-1.5

Installing screen protection piles during in-water work window



Willamette Water Supply
Our Reliable Water

5

Construction Photos – RWF_GMP-1.5

Lower Site Drainage Improvements: Installing new storm drain catch basin and connecting to existing storm drain just south of clearwell



Willamette Water Supply
Our Reliable Water

6

PLM_1.3

Contractor: Moore Excavation Inc.
Designer: HDR

Current and Planned Activities:

- Potholing utility crossings
- Processing PCOs, submittals and RFIs
- Reviewing steel pipe shop drawings
- Outside utility relocating fiber optic line



7

Construction Photos – PLM_1.3

Fiber optic line relocation on Boeckman Rd. at PLM_1.3 tunnel launch shaft



8

WTP_1.0

Contractor: Sundt Construction, Inc.
 Designer: CDM Smith

Current and Planned Activities:

- Continue mass excavation and embankment fill
- Continue drilling and controlled rock blasting
- Continue rock crushing
- Temporary electrical service
- Critical submittals including baseline CPM schedule



Construction Photos - WTP_1.0

Mass excavation for
 Clearwell



Construction Photos - WTP_1.0

Site entrance from 124th
Ave and future
alignment of Ice Age
Drive



Willamette Water Supply
Our Reliable Water

11

Construction Photos - WTP_1.0

WTP site looking south



Willamette Water Supply
Our Reliable Water

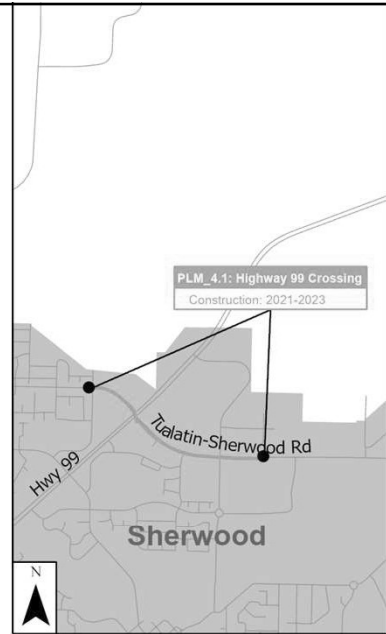
12

PLM_4.1

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

Current and Planned Activities:

- Completed trenchless crossing of Hwy 99
- Install 66" waterline inside trenchless casing
- Continue widening Roy Rogers Rd. and Tualatin-Sherwood Rd.



Construction Photos – PLM_4.1

Auger bore tunnelling machine breaking into receiving shaft



Construction Photos – PLM_4.1

Contact grouting inside tunnel casing

Willamette Water Supply
Our Reliable Water



15

Construction Photos – PLM_4.1

Installation of carrier pipe in tunnel casing

Willamette Water Supply
Our Reliable Water



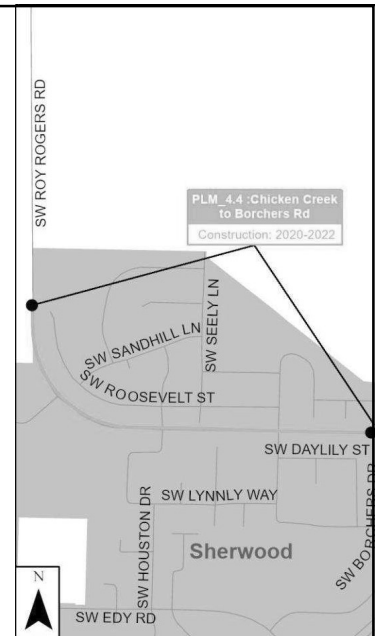
16

PLM_4.4

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

Current and Planned Activities:

- Processing WWSP submittals and RFIs
- Held pre-construction meeting June 14, 2022



17

Construction Photos – PLM_4.4

Tree and brush clearing for
County's road widening work



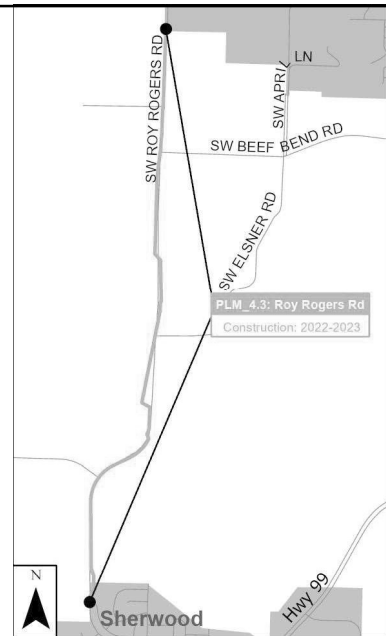
18

PLM_4.3

Contractor: Tapani Inc.
 Designer: Brown & Caldwell

Current and Planned Activities:

- Access and haul roads for waterline construction
- Secant pile installation for north tunnel shaft
- Groundwater observation wells
- Clearing and grubbing alignment
- Critical submittals



19

Construction Photos – PLM_4.3

North tunnel shaft area



20

Construction Photos – PLM_4.3

Secant pile shaft guide wall



Willamette Water Supply
Our Reliable Water

21

Construction Photos – PLM_4.3

Access/haul road construction for waterline alignment



Willamette Water Supply
Our Reliable Water

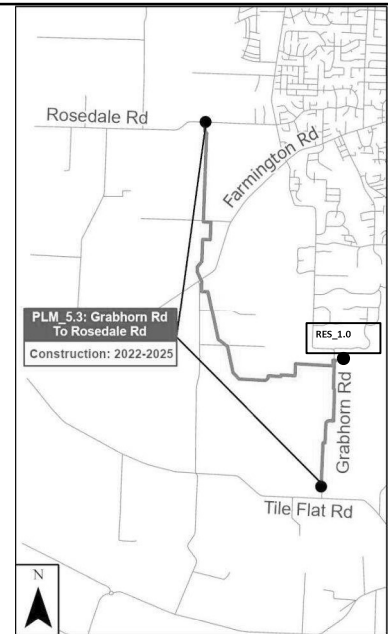
22

RES_1.0 / PLM_5.3

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

Current and Planned Activities:

- Continue installation of 66" waterline – approximately 1,800 LF installed
- Began second pipeline crew for 66" waterline installation
- Mobilized ground improvement subcontractor (cement deep soil mixing)
- Continued rock excavation at Reservoir site
- Crushing rock on Staging Area #4
- Continued construction of the soil nail/rock bolt retaining wall at the RES_1.0 site



Construction Photos – RES_1.0

Excavation at RES_1.0 site



Construction Photos – RES_1.0

Shotcrete placement for soil nail wall at RES_1.0 site



Willamette Water Supply
Our Reliable Water

25

Construction Photos – RES_1.0

PLM_5.3 waterline backfill



Willamette Water Supply
Our Reliable Water

26

Construction Photos – PLM_5.3

66" waterline installation
near Koehler Rd. (2nd crew)



Willamette Water Supply
Our Reliable Water

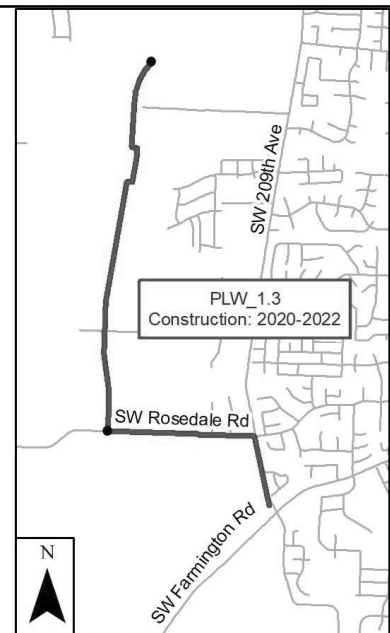
27

PLW_1.3

Contractor: Tapani, Inc.
Designer: Kennedy/Jenks

Current and Planned Activities:

- Completed all testing and disinfection of 66" and 30" lines
- Completed tie-in to PLW_1.1
- Farmington turnout vault piping and electrical work
- Marker posts and misc. appurtenances



Willamette Water Supply
Our Reliable Water

28

28

Construction Photos – PLW_1.3

Connection to PLW_1.1;
transition from 66" to 48"
pipe, harness coupling,
butterfly valve, wax tape
coating



Willamette Water Supply
Our Reliable Water

29

Construction Photos – PLW_1.3

CAV vault completion at
north side of Butternut
Creek



Willamette Water Supply
Our Reliable Water

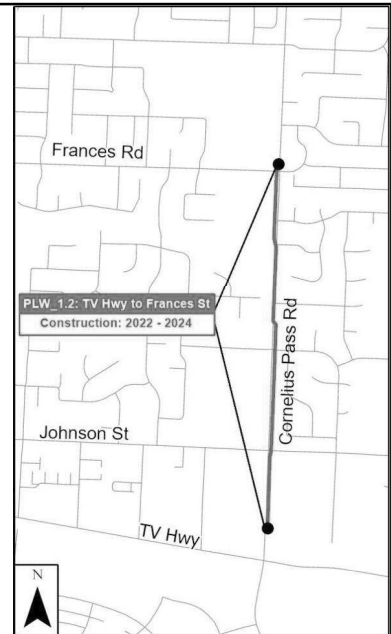
30

PLW_1.2

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

Current and Planned Activities:

- Sidewalk and driveways on west side of Cornelius Pass Rd.
- Traffic shift for Stage 2
- Overhead and underground utility relocations



Construction Photos – PLW_1.2

New sidewalk on widened road near Ladd Acres School (looking north)



Construction Photos – PLW_1.2

Work area for WWSP 48” waterline and road widening on east side of Cornelius Pass Rd. (looking north)



Willamette Water Supply
Our Reliable Water

33

MPE_1.1

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

Current and Planned Activities:

- Continue installing 48” WWSP waterline north from 5th Ave.
- Continued work on test stations, blowoff assemblies and CAV appurtenance piping
- Continue WWSP flowmeter vault construction
- City road construction between Allen and Arctic



Willamette Water Supply
Our Reliable Water

34

34

Construction Photos – MPE_1.1

Crossing 5th Ave/Western Ave.
intersection with 48" waterline



Willamette Water Supply
Our Reliable Water

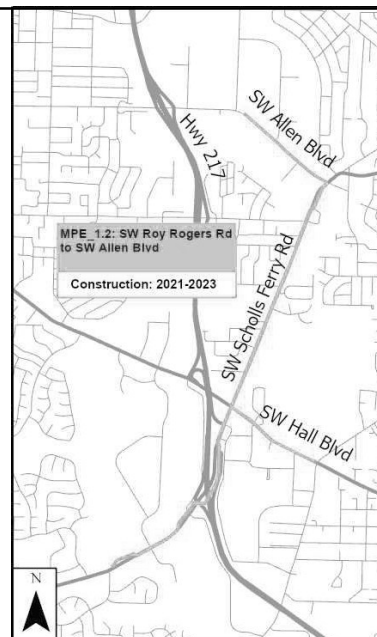
35

MPE_1.2

Contractor: Emery & Sons
Designer: Brown & Caldwell

Current and Planned Activities:

- Complete shaft and begin tunnel #1 at lower Fanno Creek
- Install 16" COB waterline on Scholls Ferry Rd.
- Install 48" open cut waterline north of Hall Blvd.
- Install 48" waterline on Scholls Ferry Rd, west of Hwy 217



Willamette Water Supply
Our Reliable Water

36

36

Construction Photos – MPE_1.2

Completed construction of launch shaft at Tunnel #1



Willamette Water Supply
Our Reliable Water

37

Construction Photos – MPE_1.2

48" waterline installation on Scholls Ferry Rd. near Hall Blvd.



Willamette Water Supply
Our Reliable Water

38

Construction Photos – MPE_1.2

Holiday test on 48" waterline
(Scholls Ferry Rd. near railroad
tracks)



Willamette Water Supply
Our Reliable Water

39

Construction Photos – MPE_1.2

Clearing and grubbing for PFC
facility



Willamette Water Supply
Our Reliable Water

40

QUESTIONS?

Willamette Water Supply
Our Reliable Water

41

Willamette Water Supply System Commission

(this page intentionally left blank)

DRAFT

**Willamette Water Supply System Commission
Board Meeting Minutes
Thursday, August 4, 2022**

Attendance:**Commissioners present:**

City of Beaverton	Marc San Soucie
City of Hillsboro	David Judah
Tualatin Valley Water District (TVWD)	Jim Duggan

Committee Members present:

City of Beaverton	Chad Lynn, David Winship
City of Hillsboro	Niki Iverson, Lee Lindsey, Jessica Dorsey
TVWD	Tom Hickmann

Managing Agency Staff present:

WWSS Commission General Manager / Willamette Water Supply Program (WWSP) Director	Dave Kraska
TVWD General Counsel	Clark Balfour
WWSP Assistant Director	Joelle Bennett
WWSP Program Manager	Jeremy Taylor
WWSP Engineering and Construction Manager	<i>Not available</i>
WWSP Permitting and Outreach Manager	Christina Walter
WWSP Finance Manager	Toby LaFrance
WWSS Commission Recorder / WWSP Executive Assistant	Annette Rehms

Other Attendees present:

City of Hillsboro JWC Water Treatment Manager	Chris Wilson
City of Hillsboro Water Engineering Manager	Negar Niakan
TVWD Water Resources Division Manager	Joel Cary
TVWD Engineering Division Manager	Nick Augustus

REGULAR SESSION – 12:00 PM**CALL TO ORDER**

Chair Judah called the regular Willamette Water Supply System (WWSS) Commission meeting to order at 12:02 p.m.

Chair Judah noted that this is Commissioner San Soucie’s last WWSS Board meeting as a sitting Board Member. Since his appointment to this Board, Commissioner San Soucie has participated in eleven meetings during which the Commission considered what are likely to be the largest and most significant contracts and business agenda items it will ever act on during this era of the Willamette Water Supply System. Chair Judah expressed appreciation for Commissioner San Soucie’s valuable service to this Board, supporting its mission to create this new, resilient water supply for customers in Beaverton, Hillsboro, and TVWD service areas.

Commissioner San Soucie reported that the City of Beaverton is in the process of appointing a new City Councilor to the WWSS Board. Until then, Mayor Beaty will most likely be representing Beaverton on the WWSS Board for the next few WWSS Board meetings.

ROLL CALL

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

1. GENERAL MANAGER'S REPORT

Mr. Kraska presented a safety minute on mosquito bite prevention (*presentation on file*).

The General Manager's report included status updates on Willamette Water Supply Program (WWSP) permitting and communications activities, construction progress, and delivery of the quarterly financial report for the period ending June 30, 2022 (*presentation on file*).

2. PUBLIC COMMENT

There were no public comments.

3. CONSENT AGENDA

- A. Approve the July 7, 2022, meeting minutes

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

4. BUSINESS AGENDA

- A. None

5. INFORMATION ITEMS

- A. Planned September Business Agenda Items – *Joelle Bennett*

Ms. Bennett presented information on the business agenda item planned for the September 1, 2022, WWSS Commission Board meeting.

Staff anticipates recommending approval of:

- 1. RWF_1.0 GMP No. 2 Contract for Construction

- B. The next Board meeting is scheduled on September 1, 2022, via Microsoft Teams.

6. COMMUNICATIONS AND NON-AGENDA ITEMS

- A. None scheduled

Upon closing the meeting, Commissioner San Soucie thanked the Board and shared that it has been a privilege to be a part of the WWSS Commission.

Commissioners Duggan and Judah thanked Commissioner San Soucie for his years of service at the City of Beaverton and the Joint Water Commission, and wished him the best in his future endeavors.

ADJOURNMENT

There being no further business, Chair Judah adjourned the meeting at 12:44 p.m.

David Judah, Chair

James Duggan, Vice Chair

Willamette Water Supply System Commission

(this page intentionally left blank)

STAFF REPORT

To: WWSS Board of Commissioners
From: David Kraska, P.E., Willamette Water Supply System General Manager
Date: September 1, 2022
Subject: Recommend Approval of RWF_1.0 CM/GC Contract Change (Contract No. 2018-013)

Requested Board Action:

Consider approving a change order in the amount of \$61,960,234 to Kiewit Infrastructure West, Co. (Kiewit) for Guaranteed Maximum Price (GMP) of Phase 2 of the Raw Water Facilities (RWF_1.0) Project and drawing \$14,537,706 from Management Reserve to fund the amount above in the current baseline budget.

Key Concepts:

- The Kiewit contract for construction manager/general contractor (CM/GC) services was executed on June 19, 2018 and was planned to be amended to include separate GMPs for Phase 1 and Phase 2 of construction.
- Phase 2 includes installing 60 mgd of vertical turbine pumps and related equipment, standby power, and a new electrical building.
- The planned Notice to Proceed (NTP) date for Phase 2 is September 16, 2022, and the substantial completion date is September 6, 2024.
- The proposed Phase 2 GMP was developed using a competitive, open-book process and includes CM/GC contingency and owner's contingency, which can be used for changed conditions and potential risks encountered during construction.
- Approval of the proposed contract change and maintaining the necessary contingency budget, the total of which exceeds the current Baseline budget, would result in a draw on the Management Reserve budget in the amount of \$14,537,706.

Background:

Project and Phasing

The RWF_1.0 project is an expansion of the existing raw water facilities at the Willamette River Water Treatment Plant (WRWTP) in Wilsonville, OR. The initial capacity being installed for the Willamette Water Supply System (WWSS) is 60 million gallons per day. Major scope elements include:

- New vertical turbine pumps and motors with variable frequency drives (VFDs)
- Relocation of existing vertical turbine pumps
- Electrical switchgear and power distribution facilities in a new Electrical Building
- Hydraulic surge tank system
- Standby power generators and fuel storage
- Seismic improvements
- A section of raw water pipeline leading to the WWSS water treatment plant

Recommend Approval of GMP No. 2 Contract Change to RWF_1.0 CM/GC Contract No. 2018-013

September 1, 2022

Page 2 of 4

- Raw water pipeline crossing at Arrowhead Creek

Kiewit was selected, through a competitive, best value selection process in mid-2018, to provide the WWSP CM/GC services for the RWF_1.0 Project. The scope of work (SOW) includes design phase, construction phase, and post construction services. The work was planned to be executed in two phases. A small summer work package for 2022 was also recently authorized and is not described here.

Phase 1

Intake screen replacement
 Intake screen protection pile improvements
 Intake screen protection catchment fence
 76" existing intake pipeline modifications
 12" existing air pipeline modifications
 Existing air burst system modifications
 Existing caisson stability improvements
 Existing pump station building modifications
 66" raw water pipeline
 Small diameter utilities
 Electrical and instrumentation & controls duct bank
 Spare conduit
 Park restoration
 Viewing platform restoration
 WRWTP pump relocating and rebuilding

Phase 2

New upper site electrical building
 Surge equipment
 Upper site civil improvements
 WWSS pumps, motors drives,
 WWSS pump mechanical equipment
 WWSS pump bearing lubrication system
 Other related features and improvements

Phase 1 Construction Status

Phase 1 of construction is substantially complete. This phase of construction contained a CM/GC and Owner's contingency within the contract. Phase 1 also held a project contingency outside of the contract. The remaining available contingency of \$630,606.33 from Phase 1 has been reallocated to fund contingencies for Phase 2 work.

Phase 2 Construction Procurement Process

The bid process for Phase 2 work was completed in accordance with a procurement plan prepared by Kiewit and reviewed by WWSP, including legal counsel. The process included two outreach meetings to promote interest and understanding among potential bidders. Request for proposal (RFP) packages for 41 separate work packages were developed by Kiewit and reviewed by the WWSP. The work packages were organized into the following categories reflecting the basis of selection:

- 3 best-value selections with prequalification (technical and cost)
- 38 low-bid selections with minimum qualifications/requirements

WWSP administered key procurement activities, including making selections, for the work packages for which Kiewit submitted a competitive bid.

Phase 2 GMP Development and Review

In the CM/GC delivery method, the bid review is an "open-book process," during which the owners review the detailed back-up information provided by the CM/GC for each work package. Kiewit submitted an initial draft GMP on June 1, 2022, and several updates and refinements over the

Recommend Approval of GMP No. 2 Contract Change to RWF_1.0 CM/GC Contract No. 2018-013

September 1, 2022

Page 3 of 4

subsequent four 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 low to moderate. Low bidder participation is consistent with local and national trends.

The table below summarizes the components of the Phase 2 GMP and the basis for each component.

Component	Amount	Basis
Cost of Work	\$53,384,462	Competitive procurement process for GMP 2 (see above)
CM/GC Fee (8%)	\$4,270,800	Competitive procurement of CM/GC in 2018; included in current contract
CM/GC Contingency*	\$1,726,900	Systematic review of CM/GC's risks; allowable cost types included in current contract
Escalation Allowance*	\$763,000	CM/GC's escalation risks; allowable cost types included in current contract as CM/GC Contingency but broken out for effective management
Owner's Contingency*	\$1,815,072	Systematic review of owner's risks; allowable cost types included in current contract
Total	\$61,960,234	

*Contingencies and allowance percentages are approximately 3.2% CM/GC Contingency, 1.4% Escalation Allowance, and 3.4% Owner's Contingency. Exact values may not calculate as shown due to rounding.

WWSP has implemented numerous actions to manage the cost of the RWF_1.0 project. During the CM/GC procurement, cost was a major component of the selection process. CM/GC fees and rates for professional staff were established through that competitive process. During the design phase, the design consultant, CM/GC, and WWSP staff engaged in extensive value engineering; external budgetary quotes were used to inform the CM/GC's opinions of probable construction cost; and an intergovernmental agreement was established to define the scope of improvements at the WRWTP and enable on-time construction. During development of the Phase 2 GMP, CM/GC construction staffing plans were negotiated early, bidder outreach was extensive; open-book competitive bidding was used; sealed-bids were required for potential self-perform work; supplemental bids were sought for packages with low responsiveness; best and final offers were obtained for selected packages; prices were negotiated downward; and the process and results were subject to comprehensive review.

Budget Impact

The following is a summary of the Phase 2 GMP compared to the current Baseline Budget:

Current Budget (Baseline 7) – Phase 2	\$48,490,217
GMP No. 2 (including project level contingency ¹)	\$63,027,923
Amount over Baseline 7 Budget – Phase 2	\$14,537,706
¹ Project level contingency @ 2% of Cost of Work = \$1,067,689 added to GMP 2 of \$61,960,234	

An update to the overall RWF_1.0 project budget, reflective of the Phase 2 GMP, of \$14,537,706 is anticipated to be included within the forthcoming annual update to the WWSP Baseline budget (Baseline 8.0). The required budget increase may be withdrawn from Management Reserve.

Recommend Approval of GMP No. 2 Contract Change to RWF_1.0 CM/GC Contract No. 2018-013

September 1, 2022

Page 4 of 4

Primary drivers for the increase in cost for Phase 2 work include extreme escalation across all elements of the work and supply chain challenges within the broader economy. Increases for Phase 2 construction are in line with Producer Price Index (PPI) changes for relevant equipment and services as shown in the table below:

PPI Index Data	Escalation
Electric power distribution	28%
Industrial valve manufacturing	16%
Electric power and specialty transformer mfg.	33%
Switchgear and switchboard apparatus mfg.	22%
Truck transport	24%
General freight trucking	18%
GMP 2	25%

The proposed change order would increase the total contract value to \$114,593,248 as shown in the table below.

Current Contract Value	\$52,633,014
Proposed Change	\$61,960,234
Proposed Contract Value	\$114,593,248

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

Estimated Partner Share of Proposed GMP No. 2 Cost¹	\$63,027,923
TVWD Estimated Share ²	\$37,709,835
Hillsboro Estimated Share ²	\$21,913,645
Beaverton Estimated Share ²	\$3,394,420
WIF Estimated Share ²	\$10,023
¹ Includes 2% Project-level Contingency	
² Based on overall project ownership percentage from Baseline 7.0 and WWSS IGA.	

Staff Contact Information:

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

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

Attachments:

1. Exhibit 1: Proposed GMP No. 2 change order to RWF_1.0 CM/GC Contract No. 2018-013

Change Title: Incorporate GMP 2 for Phase 2 Construction
Project: RWF_CMGC
To: KIEWIT INFRASTRUCTURE WEST CO

Change Order# 43
Date: 8/16/2022
Contract # 2018-013

The following PCOs are hereby incorporated into the Contract:

PCO#	Description	Time Impact (Days)	Change Amount
PCO - 91	GMP 2 Incorporation	0	\$ 61,960,234.00

The Original Contract Sum was	\$49,592,099.30
Net Change by Previously Authorized Requests and Changes	\$3,040,914.57
The Contract Sum Prior to this Change Order was	\$52,633,013.87
The Contract Sum will change by	\$61,960,234.00
The New Contract Sum including this Change Order	\$114,593,247.87
The Contract Time will change by	0 Days
The Date of Contract Completion as of this Change Order Therefore is	12/3/2024

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: _____

By: _____
Name: _____
Title: _____
Date: _____

**PCO-91 Contract No. 2018-013
RWF_1.0 Construction Management / General Contractor Services**

CMGC contract deliverables and construction of RWF

In accordance with the contract agreement, this changes authorizes the not to exceed, Guaranteed Maximum Price (GMP) of Sixty-One Million Nine Hundred Sixty Thousand Two Hundred Thirty-Four Dollars and Zero Cents (\$61,960,234.00) for the RWF_1.0 Construction Phase 2. The following documents are provided as back-up for GMP 2:

1. RWF_1.0 GMP II - Basis of Estimate
2. RWF_1.0 GMP II - Contingency Escalation and Risk Analysis
3. RWF_1.0 GMP II - Health and Safety Plan_Rev0
4. RWF_1.0 GMP II - Maintenance and Operation Plan_Rev0
5. RWF_1.0 GMP II - Org Chart
6. RWF_1.0 GMP II - Permitting and Environmental Management Plan_Rev0
7. RWF_1.0 GMP II - Phase 2 Summary and Sheet 2022
8. RWF_1.0 GMP II - Project Quality Plan_Rev0
9. RWF_1.0 GMP II - Schedule_Rev0

Item	Description	Quantity	Units	Unit Price	Net Amount
700	Air Burst System Modifications			\$ 0.00	\$10,023.00
701	Existing Pump Station Building Modifications			\$ 0.00	\$3,119,344.00
702	WWSS Pumps, Motors, Drives			\$ 0.00	\$8,823,000.00
703	WWSS Pump Mechanical Equipment			\$ 0.00	\$1,034,000.00
704	WWSS Bearing Lubrication System			\$ 0.00	\$376,000.00
705	Raw Water Pipeline			\$ 0.00	\$4,877.00
706	Electrical and I&C Ductbank			\$ 0.00	\$2,131,922.00
707	Upper Site Electrical Building			\$ 0.00	\$14,793,123.00
708	Upper Site Stormwater Improvements			\$ 0.00	\$254,177.00
709	Standby Power and Fuel Tank			\$ 0.00	\$5,861,440.00

710	Surge Equipment	\$ 0.00	\$2,591,440.00
711	Upper Site Civil Improvements	\$ 0.00	\$3,920,053.00
712	Communications	\$ 0.00	\$362,907.00
713	Small Tools and Supplies	\$ 0.00	\$34,327.00
714	General Conditions & Indirects	\$ 0.00	\$8,357,743.00
715	Bonds	\$ 0.00	\$345,936.00
716	Site and Support Services	\$ 0.00	\$1,364,150.00
717	CM/GC Fee 8%	\$ 0.00	\$4,270,800.00
718	Escalation Allowance	\$ 0.00	\$763,000.00
800	Owner Contingency (Allowance)	\$ 0.00	\$1,815,072.00
900	CM/GC Contingency (Allowance)	\$ 0.00	\$1,726,900.00
Total		\$	61,960,234.00

Willamette Water Supply System Commission

(this page intentionally left blank)

Willamette Water Supply

Our Reliable Water

4.A. Approve RWF_1.0 GMP No 2 for Construction – *Mike Britch*

September 1, 2022

1

Outline

- Project background
- Bid process
- GMP review
- GMP comparison to Baseline budget
- Requested Board action

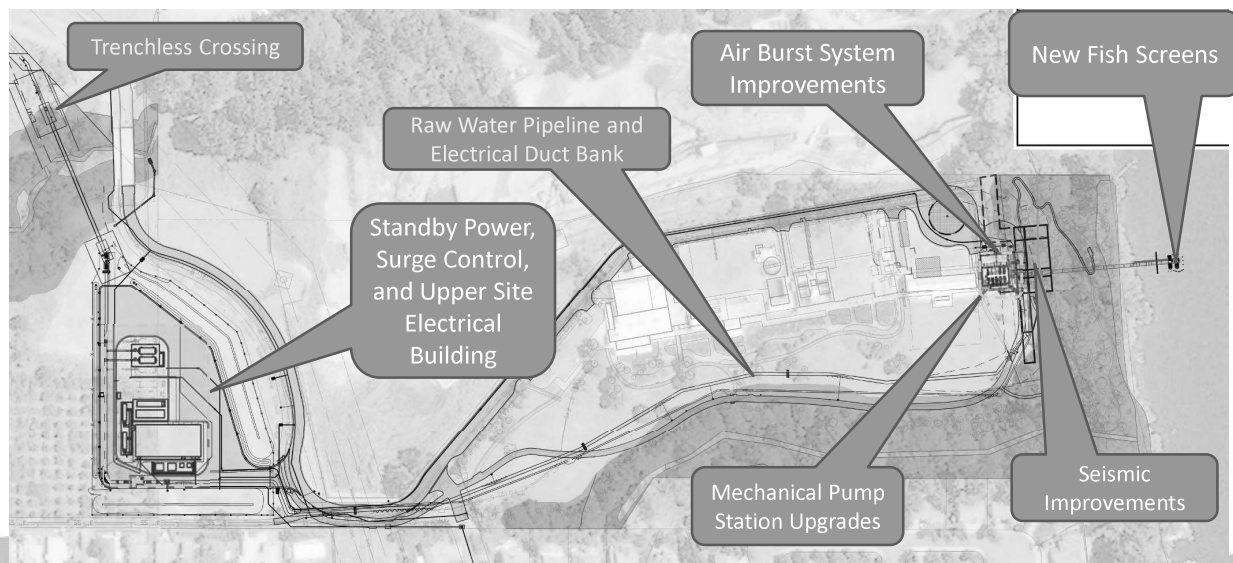
2

Proposed GMP No. 2

- Proposed GMP No. 2 amount \$61,960,234
- Required draw on Management Reserve \$14,537,706
- Current Management Reserve balance is \$77.1M and remaining balance would be \$62.5M

3

RWF_1.0 Project Background



4

RWF_1.0 Background

- Kiewit contract for CM/GC services was executed in June 2018
 - Included design phase services
 - Planned to be amended to include separate GMPs for construction Phases 1 and 2
- Phase 1.0 work complete
- Phase 1.5 in construction
- Phase 2.0 GMP NTP September 15, 2022

Raw Water Facility Current Condition

Lower Site



Upper Site

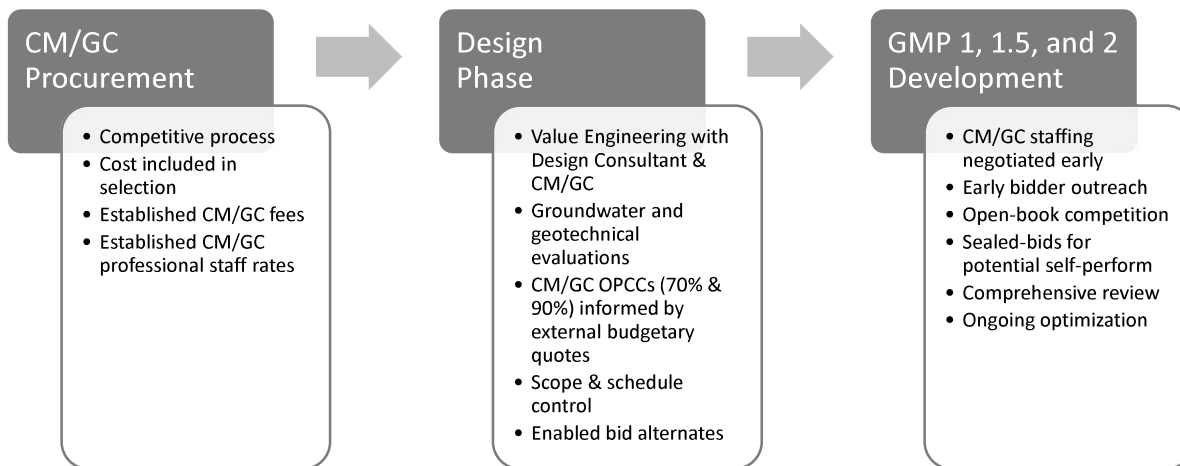


GMP 2 Scope Items

- Pump station expansion with the addition of 60 mgd of vertical turbine pumps
- Pump station HVAC improvements
- Hydro-pneumatic surge tanks for raw water transmission
- Electrical facilities, instrumentation, and controls
- Standby power generation system
- New electrical building and site improvements



Actions Taken for Cost Management through GMP 2

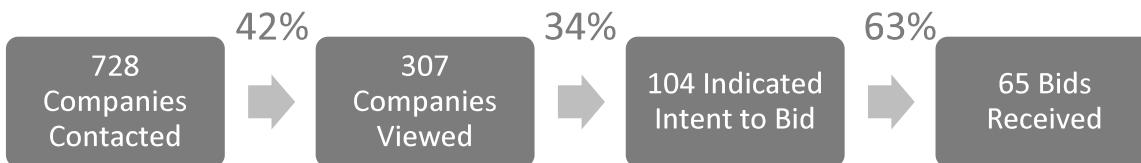


Phase 2 Bidding Process

- Extensive outreach effort
 - Direct bidder contact
 - Focus on critical packages
 - Pre-bid outreach workshop 4/14/2022
 - Pre-bid workshop and site tour on 5/18/2022
- Bidder questions addressed
- Best value utilized
 - WWSP developed evaluation criteria
 - Prequalification required
- WWSP administered key procurement activities
- No bid protest occurred
- Open book approach utilized



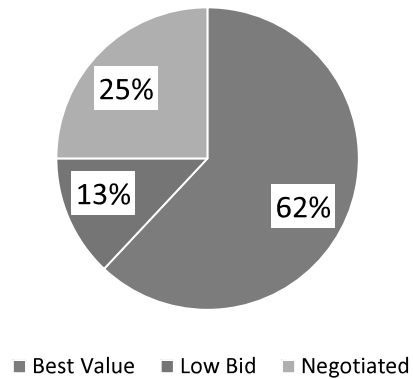
Overall Procurement Reach



Solicitations by Basis of Award

- 3 Best value
 - Upper site electrical building
 - Electrical
 - Mechanical
- 38 Low bid from qualified bidders
- 6 Kiewit negotiated Items
 - Fee 8%
 - General conditions
 - Small tools
 - Bonds
 - Site support services

Basis of Award by Dollar



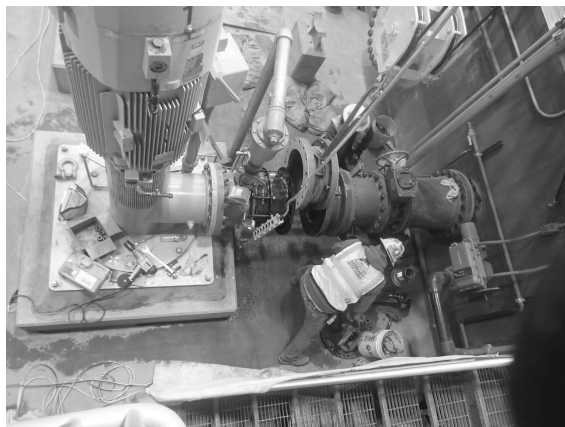
Best Value Award: Electrical & Instrumentation

- Three Proposals Received
 - Team Electric \$14,262,805
 - OEG \$14,503,360
 - Christenson \$14,701,844
- Christenson Electric was selected for award based on best value criteria



Best Value Award: Mechanical

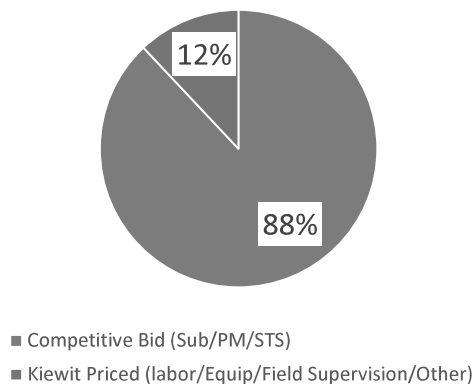
- One Proposal Received
 - Kiewit \$14,192,000
 - J. W. Fowler No bid
- Kiewit proposal was deemed complete and responsive to the RFP
- Kiewit was selected for award based on best value criteria



Best Value Award: Mechanical

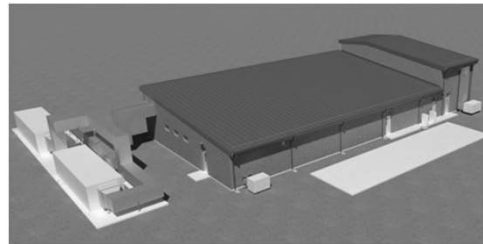
- Open book review of single bid conducted
 - Material quotes
 - Equipment quotes
 - Subcontract bids
 - Kiewit labor direct costs
 - Kiewit risk/contingency pricing
- In line with expectations
- 88% of price represented by competitive bids

Mechanical Bid Pricing



Best Value Award: Upper Site Electrical Building

- Two Proposals Received
 - P&C Construction \$6,732,445
 - Glen/Mar Construction \$7,300,000
- P&C Construction was selected for award based on best value criteria



GMP 2 Negotiation and Validation

- Draft submitted June 1, 2022
- Review by WWSP and SMEs completed on June 24, 2022
- Discussion items
 - General conditions staffing levels
 - Escalation and risk management approach
 - Cost and price analysis of sub and material procurements
 - CMGC contingency adjustments
 - General and administrative markup within Kiewit bids
 - Confirmation of Owner's contingency

Proposed GMP 2

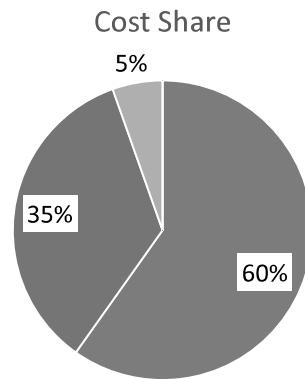
Description	Cost
Cost of the Work	\$53,384,462
Fee at 8%	\$4,270,800
CMGC Contingency *	\$1,726,900
Escalation Allowance*	\$763,000
Owner Contingency*	\$1,815,072
GMP 2 Total	\$61,960,234
Project level contingency	\$1,067,689
GMP 2 with project level contingency	\$63,027,923
Baseline 7.0 Phase 2 Budget	\$48,490,217
Required Budget Adjustment	\$14,537,706

- *Contingencies and allowance percentages are approximately 1.2% CM/GC Contingency, 1.4% Escalation Allowance, and 3.4% Owner's Contingency. Exact values may not calculate as shown due to rounding.
- Total contingency, including a project level contingency of approximately 2% is 10%

GMP 2 Cost Share

Estimated Partner Share of Proposed GMP No. 2 Cost ¹	\$63,027,923
TVWD Estimated Share ²	\$37,709,835
Hillsboro Estimated Share ²	\$21,913,645
Beaverton Estimated Share ²	\$3,394,420
WIF Estimated Share ²	\$10,023

¹Includes 2% Project-level Contingency
²Based on overall project ownership percentage from Baseline 7.0 and WWSS IGA.

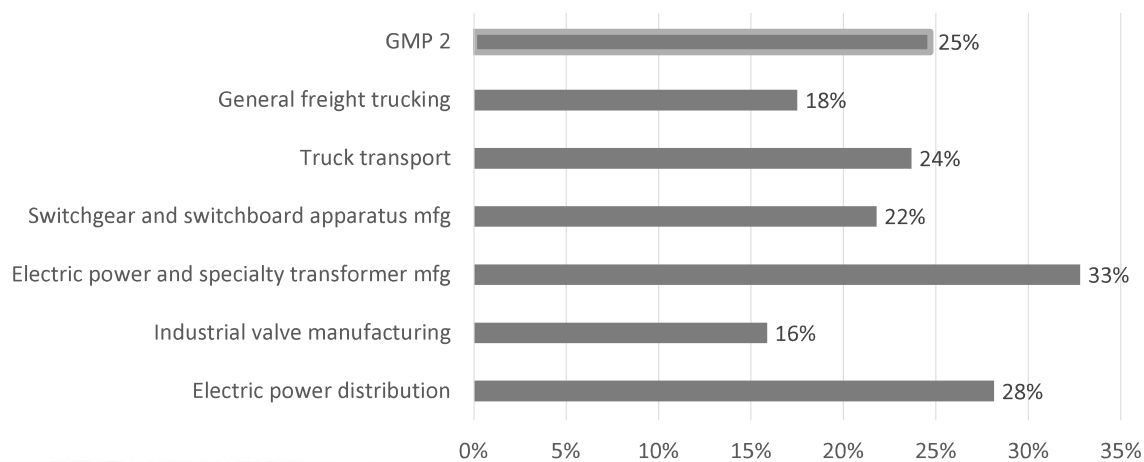


■ TVWD ■ Hillsboro ■ Beaverton ■ WIF

Primary Drivers for GMP above Baseline 7.0

Project Specific Market Conditions	General Market Conditions	Unique Scope Elements / Additions
<ul style="list-style-type: none"> • Extreme market escalation / volatility • limited number of bidders despite significant outreach • Supply chain risks on critical components 	<ul style="list-style-type: none"> • Labor shortage • Increased transportation costs • Supply chain disruption • Compounding escalation (material and market uncertainty) • Busy market 	<ul style="list-style-type: none"> • No significant scope increases

GMP 2 and PPI Escalation



Schedule

Major Project Milestones	Latest Approved Baseline	Latest Monthly Forecast	Variance (days)
Stage Gate 3 – Authorization to Construct	8/15/2022	8/15/2022	0
Management Committee	8/18/2022	8/18/2022	0
Board Approval	9/1/2022	9/1/2022	0
NTP	9/1/2022	9/9/2022	8
Substantial Completion	9/6/2024	9/6/2024	0
Stage Gate 5 – Final Acceptance	12/3/2024	12/3/2024	0

4.A. Requested Board Action

Consider approving a change order in the amount of \$61,960,234 to Kiewit Infrastructure West, Co. (Kiewit) for Guaranteed Maximum Price (GMP) of Phase 2 of the Raw Water Facilities (RWF_1.0) Project and drawing \$14,537,706 from Management Reserve to fund the amount above in the current baseline budget.

Current Management Reserve balance is \$77.1M and remaining balance would be \$62.5M

QUESTIONS?

Willamette Water Supply
Our Reliable Water

**Willamette Water Supply System Commission
Board Meeting**

September 1, 2022
