

**Willamette Intake Facilities Commission
Board Meeting Minutes
July 29, 2019**

REGULAR SESSION – 6:00 PM

CALL TO ORDER AND ROLL CALL

Commissioners present:

Tualatin Valley Water District (TVWD): Jim Doane
Beaverton: Denny Doyle (Alternate)
Hillsboro: John Godsey (Chair)
Sherwood: Sean Garland (Vice Chair)
Tigard: John Goodhouse
Wilsonville: Kristin Akervall (Alternate)

Committee Members present:

TVWD: Mark Knudson, Management Committee
Paul Matthews, Finance Committee
Pete Boone, Operations Committee (Alternate)
Beaverton: David Donaldson, Management Committee
Hillsboro: Niki Iverson, Management Committee
Sherwood: Craig Sheldon, Management Committee
Tigard: Brian Rager, Management Committee

Managing Agency Staff present:

Dave Kraska, Willamette Water Supply Program Director/WIF Commission General Manager
Joelle Bennett, Willamette Water Supply Program (WWSP) Assistant Director
Justin Carlton, WWSP Finance and Administrative Supervisor
Clark Balfour, TVWD Counsel
Faye Branton, WWSP Administrative Assistant/WIF Commission Recorder
Annette Rehms, WWSP Administrative Assistant

Other Attendees:

Joel Cary, TVWD Water Resources Division Manager
Mike Britch, WWSP Engineering and Construction Manager
Jenn Minton, WWSP Raw Water Facilities Project Manager
Christina Walter, WWSP Permitting and Outreach Manager
Mark McConnell, TVWD Facilities

Chairman Godsey opened the meeting at 6:00pm and led around-the-room introductions.

1. GENERAL MANAGER'S REPORT

Mr. Kraska presented a Safety Minute on fire prevention during extreme hot weather.

Mr. Kraska presented the General Manager's report, which included an overview of the June 26, 2019, Kinder Morgan Incident Command System (ICS) emergency simulation tabletop exercise, an update on the FY 2019-20 Annual Work Plan progress, and proposed delivery of the WIF quarterly financial reports along with the General Manager's report to allow better coordination with the timing of the managing agency's financial activities.

The Board concurred with the proposed delivery of the WIF quarterly financial reports with the GM reports.

2. PUBLIC COMMENT

There were no public comments.

3. CONSENT AGENDA

- A. Approve the April 29, 2019 meeting minutes.

Motion was made by Doyle, seconded by Goodhouse, to approve the consent agenda as presented. The motion passed unanimously with Ackervall, Doane, Doyle, Garland, Godsey, and Goodhouse voting in favor.

4. BUSINESS AGENDA

- A. Approve MOU with Clackamas River Water for Lab Services. *Staff Report – Joel Cary, TVWD*

Mr. Cary briefed Commissioners on recent activities related to the cyanotoxin monitoring included in the WIF Annual Work Plan for fiscal year 2019-20 and requested that the Board consider granting TVWD authority to approve a final Memorandum of Understanding (MOU) between Tualatin Valley Water District and Clackamas River Water's laboratory to perform as-needed analyses for cyanotoxin testing on behalf of the WIF Commission. (See attached presentation.)

Mr. Cary stated that the draft MOU is currently in review with WIF Operations Committee members and CWR, and that he learned just prior to this meeting that CRW may opt to turn the proposed MOU into an Intergovernmental Agreement (IGA).

Based on the most recent development Mr. Cary brought to the Board's attention, prior to the Board's vote Mr. Knudson offered a clarified recommendation that the Board consider granting TVWD authority to approve a final MOU or IGA between TVWD and CRW.

Motion was made by Doyle, seconded by Doane, to approve the Managing Agency's request to complete and execute the MOU or IGA with Clackamas River Water to perform lab services for cyanotoxin testing as needed. The motion passed unanimously with Ackervall, Doane, Doyle, Garland, Godsey, and Goodhouse voting in favor.

5. INFORMATION ITEMS

- A. Semiannual Update on the Willamette Water Supply Program Raw Water Facilities Project – *Dave Kraska, WWSP*

Mr. Kraska introduced Mike Britch who presented the status of the bank stabilization design concept, the land use application status, the construction cost estimate, and the overall Raw Water Facilities (RWF_1.0) project schedule. (See attached presentation.)

Chair Godsey thanked Mr. Britch for the very detailed and technical project overview .

B. Legislative Update – *Joel Cary, TVWD*

Mr. Cary presented a summary update regarding the status of bills introduced during the 2019 Oregon Legislative Session that could affect drinking water providers. He also highlighted Managing Agency staff engagement with the Legislative Assembly and appreciatively acknowledged the engagement of other agencies and organizations, with a special acknowledgement of SDAO and League of Oregon Cities staff for their help in monitoring legislative activities of interest to water providers. (See attached presentation.)

In response to Commissioners' questions re: Senate Bill 935 (contracting bill), staff replied that this bill was promoted by the senator from the Roseburg area, who is a licensed landscape contractor. The landscape language was removed from the bill after the conflict of interest issue was pointed out to the Legislative Assembly. The reference to unlicensed contractors does not apply to home projects, rather to those who are hired. As a hypothetical example, the language removed from SB935 would have allowed someone hired to build a deck to construct an irrigation system, as well. Many qualifications have been established over the years regarding installation of these systems to make sure they are protected at the source and to protect the public water supply. Much of that protection could have been inadvertently circumvented.

Commissioner Doyle requested a written summary regarding Senate Bill 27 (new fee on public water systems) and offered to bring additional voices to the table to help address future legislative issues.

- C. The next Board meeting is scheduled on October 28, 2019, at Tualatin Valley Water District– Board Room.

6. COMMUNICATIONS AND NON-AGENDA ITEMS

- A. None scheduled.

ADJOURNMENT

There being no further questions or business, Chairman Godsey adjourned the meeting at 6:54 p.m.

John Godsey, Chair

Sean Garland, Vice Chair

Willamette Intake Facilities Commission

(This page intentionally left blank)

WIF Commission

Cyanotoxin Monitoring MOU w/ Clackamas River Water

Joel Cary

Water Resources Division Manager

Tualatin Valley Water District

Delivering the Best Water  Service  Value

Cyanotoxin Monitoring Updates

- **DEQ lab funding** –
Approved in 2019 Legislative Session
- **Bi-Weekly Cyanotoxin Monitoring** –
Willamette River intake, May-Oct
- **Additional Laboratory Capacity** –
Explored options during budget process



Delivering the Best Water  Service  Value

Cyanotoxin Monitoring – Ongoing Planning



- **Clackamas River Water** – Fully accredited for OHA required cyanotoxin analyses
- **Benefits** – **Cost effective, local, timely results**
- **Memorandum of Understanding (MOU)** – Under review with Clackamas staff

Cyanotoxin Monitoring – Recommendation

Consider granting TVWD authority to approve final MOU with Clackamas River Water to perform as-needed analyses for cyanotoxin testing on behalf of the WIF Commission

Questions? Thank-you

Willamette Intake Facilities Commission

(This page intentionally left blank)

Willamette Water Supply
Our Reliable Water

Semi-annual Update on the WIF-Related Elements of the Raw Water Facilities Project

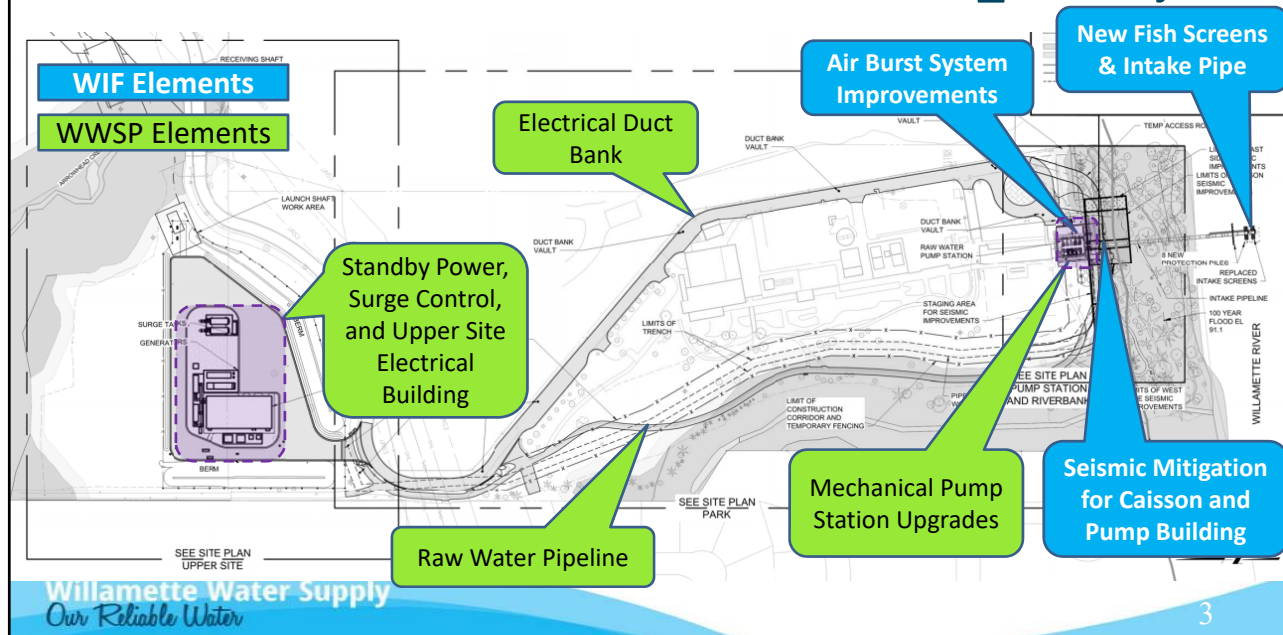
Willamette Intake Facilities Commission Meeting
July 29, 2019

Outline

- Reminder of WIF-related elements of the Raw Water Facilities (RWF-1.0) project
- Construction cost estimate update
- Schedule update
- Bank stabilization approach and design evolution

Willamette Water Supply
Our Reliable Water

WIF-Related Elements of the WWSP's RWF_1.0 Project



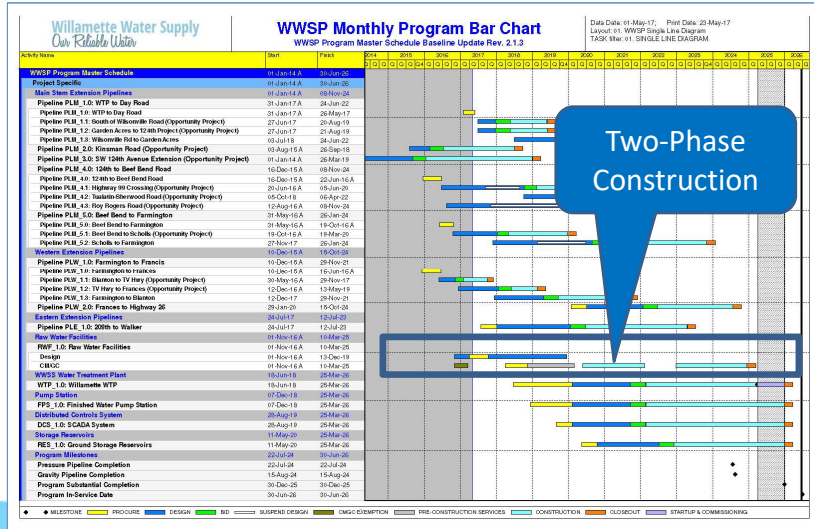
Construction Cost Estimate

- Construction Manager / General Contractor's (Kiewit) latest (70 percent) estimate
 - \$80M for RWF_1.0, including \$10M contingency
 - Class 3 estimate: +30% to -20%
 - Estimate for WIF-related elements trending consistent with previous budget information



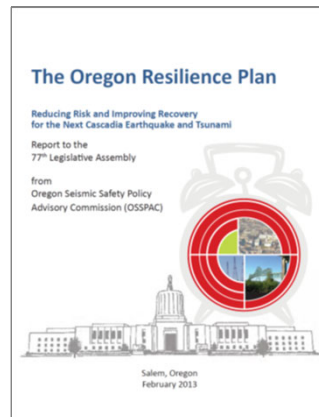
RWF_1.0 project schedule remains on track

- Design Phase:
 - In progress
 - Land Use application April 2019
 - Ends Q4 2019
- Construction Phase 1
 - Starts Q2 2020
 - Ends Q1 2022
- Construction Phase 2
 - Starts Q3 2022
 - Ends Q4 2024



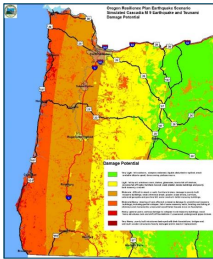
Willamette Water Supply
Our Reliable Water

Seismic hazards are one of the greatest risks to water systems in the NW Region



Willamette Water Supply
Our Reliable Water

WWSP facility level of service goals based on the Oregon Resilience Plan



System Components	WWSP LOS Goals	Oregon Resilience Plan Guidance
Intake & Raw Water Facilities	50% capacity w/n 48 hrs * (25% capacity w/n 24 hrs)	Source 20-30% (0-24 hrs) Source 50-60% (1-3 days) Source 80-90% (1-2 wks)
Treatment Plant	50% capacity w/n 48 hrs * (25% capacity w/n 24 hrs)	Source 20-30% (0-24 hrs) Source 50-60% (1-3 days) Source 80-90% (1-2 wks)
Terminal Storage Reservoir	Same as ORP	Transmission 80-90% (0-24 hrs)
Transmission Lines	Same as ORP	Transmission 80-90% (0-24 hrs)
Appurtenances	Same as ORP	Transmission 80-90% (0-24 hrs)
Turnouts	Same as ORP	Transmission 80-90% (0-24 hrs)

ORP – Oregon Resilience Plan (* Full capacity when electrical power, transportation and other required infrastructure capacity restored)

August 2018 Guidance for Structure Resiliency



- Recognition of multi-disciplinary aspect of the seismic hazard ✓
- “Design Earthquake” considerations
 - “Design” vs. “Extreme”

Design Hazard Event Selection Options

Table 2. Summary of three hazard levels defined as a function of hazard types and intensity (adapted and modified from [13])

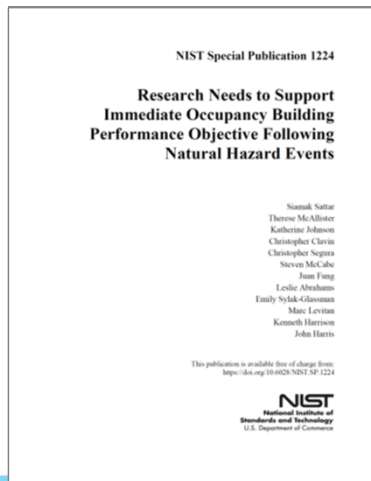
Hazard	Routine	Design	Extreme
Ground Snow	50 yr MRI or 64% in 50 years	300 to 500 yr MRI ¹ or 15 to 10% in 50 yr	Locally determined
Rain	Locally determined ²	Locally determined	Locally determined
Wind – Non-Hurricane	10 to 100 yr MRI or 99% to 39% in 50 years	700 to 3,000 yr MRI or 7% to 1.6% in 50 yr	Not typically considered
Wind – Hurricane	10 to 100 yr MRI or 99% to 39% in 50 yr	700 to 3,000 yr MRI or 7% to 1.6% in 50 yr	10,000 yr MRI or 0.5% in 50 yr ³
Wind – Tornado	Not typically considered	Not typically considered	Variable ⁴
Earthquake	50 yr MRI or 64% in 50 years	500 yr MRI or 10% in 50 yr ⁵	2,500 yr MRI or 2% in 50 yr ⁶
Tsunami	Locally determined ³	2,475 yr MRI or 2% in 50 yr	Locally determined ³
Flood	Locally determined	100 yr MRI or 39% in 50 yr	500 yr MRI or greater or 10% or less in 50 yr ⁷
Fire – Wildland Urban Interface	Locally determined ⁷	Locally determined ⁷	Locally determined ⁷
Fire – Urban	Locally determined ⁷	Locally determined ⁷	Locally determined ⁷

Code design earthquake

WWSP design earthquake

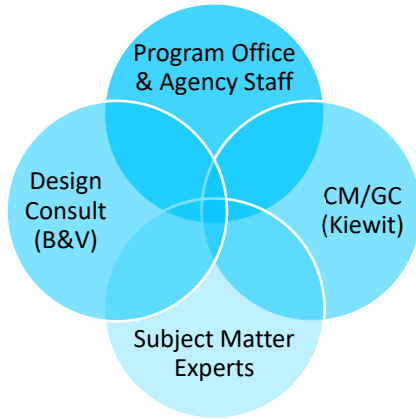
Note – Mean Recurrence Interval (MRI) values from ASCE 7-16 unless otherwise noted.

August 2018 Guidance for Structure Resiliency



- Recognition of multi-disciplinary aspect of the seismic hazard ✓
- “Design Earthquake” considerations
 - “Design” vs. “Extreme” ✓
- Design for immediate occupancy and near-term functionality
 - “specific post-disaster time frame by which functionality should be recovered” (p. 6) ✓
- Consideration of both structural and non-structural components ✓

WWSP's team of experts use a collaborative, multi-disciplinary approach to find optimal solutions



- Design and peer review team selected due to relevant experience
 - GRI; geotechnical and seismic mitigation sub
 - Michael Beaty, Ph.D
 - Kent Yu, Ph.D, P.E.

Through the design process we have arrived at the right size, cost effective, and resilient approach



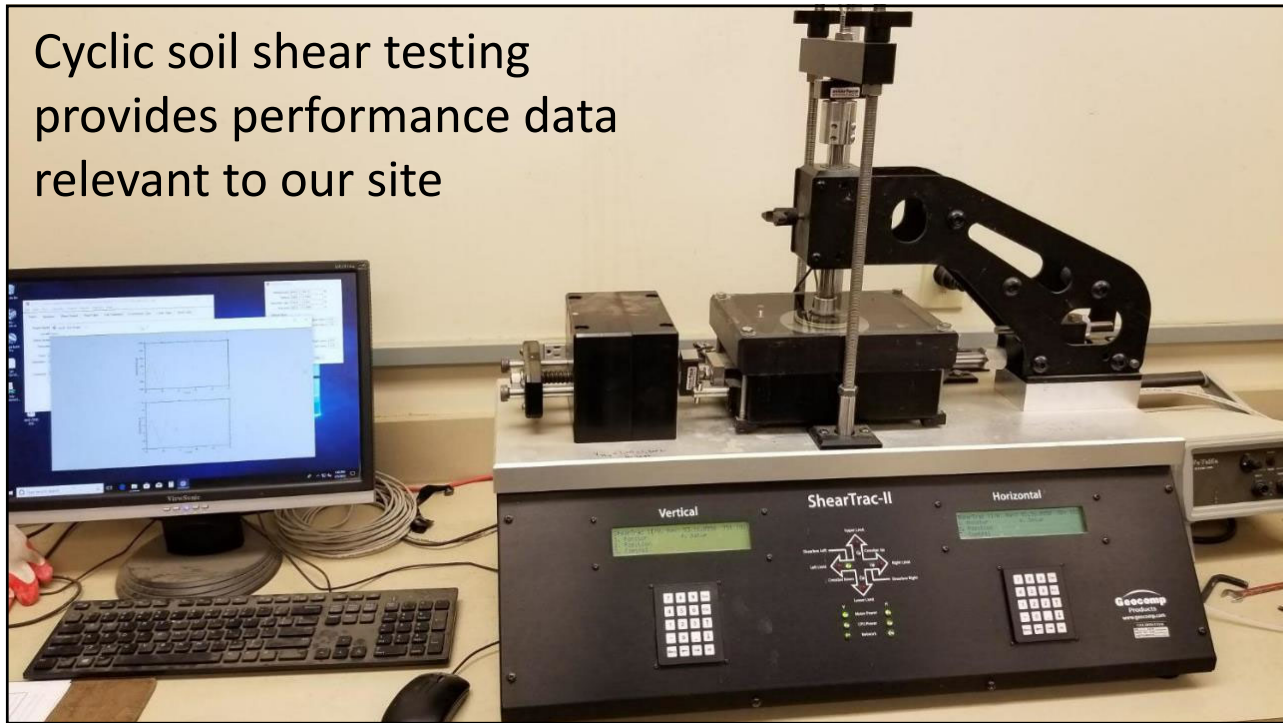
Vancouver Waterfront Park



Firehouse No.21 on Willamette River

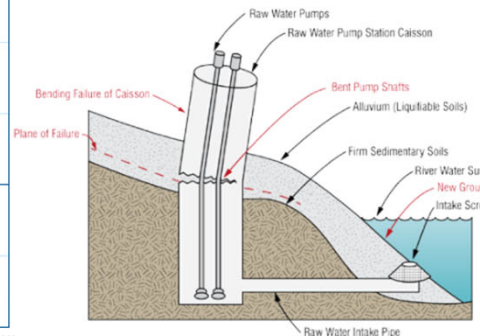
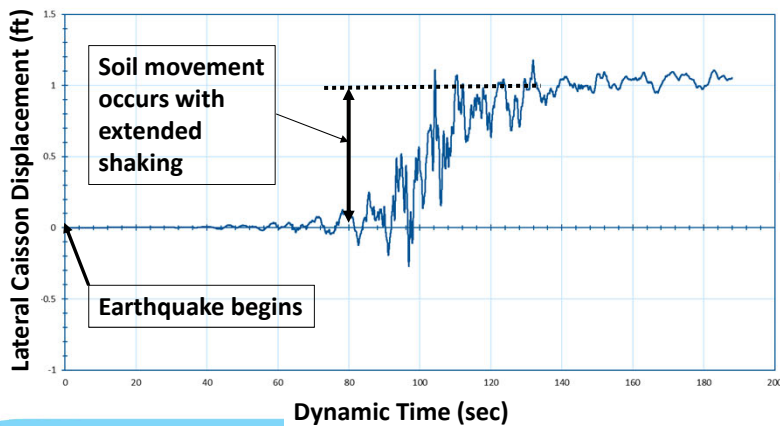
SEISMIC MITIGATION / GROUND IMPROVEMENT PROJECT	SELECTED MITIGATION METHOD
Chehalem Creek Bridge Seismic Stabilization Retaining Walls, Newberg Dundee Bypass, Yamhill County, Oregon	Secant Pile Walls
Fire Station 21 Riverbank Seismic Stabilization, Portland, OR	Compaction Grouting
Waterfront Pearl High-Rise, Willamette River, Portland, OR	Stone Columns
Vancouver Waterfront Park Grant Street Pier, Vancouver, WA	Tied-back Sheetpile Wall and Drilled Shafts
Millport Slough Bridge, Lincoln County, Oregon	Driven Displacement Piles, Wick Drains
Cameron Glass Facility, Columbia River, Port of Kalama	Densified Sand Columns
La Center Bridge, La Center, Washington	Tied-Back Large-Diameter Drilled Shafts
U.S. Gypsum Sheetrock Plant, Columbia River, Rainier, OR	Vibro-flotation and Stone Columns
Washington Way Bridge, Longview, Washington	Timber Pile Ground Improvement Buttress
Port of Vancouver Terminal 1 Waterfront Stabilization	Deep Soil Mixing
Pembina Portland Propane Terminal, Portland, OR	Stone Columns, Deep Soil Mixing

Cyclic soil shear testing provides performance data relevant to our site



Current Raw Water Facilities are expected to move when subjected to long-duration shaking

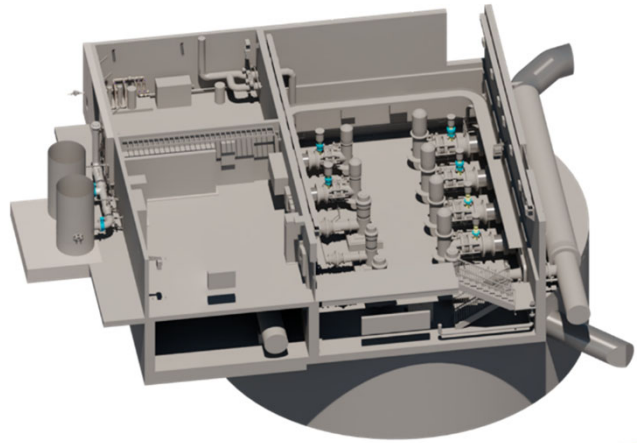
Based on laboratory analysis of field data collected at the site



Willamette Water Supply
Our Reliable Water

Raw Water Facilities operability following an earthquake requires addressing needs of other features

- WIF-related elements:
 - Screens (WIF)
 - Intake pipe (WIF)
 - Caisson movement (WIF)
- Other features:
 - Pump vertical tolerance
 - Emergency operations
 - Emergency access
 - Other site hazards

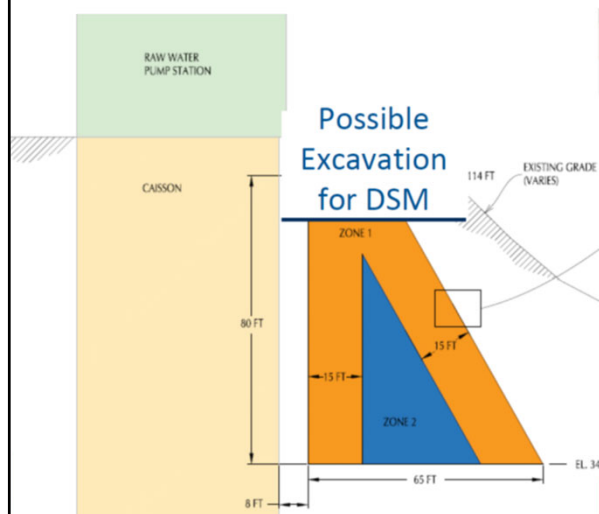


Willamette Water Supply
Our Reliable Water

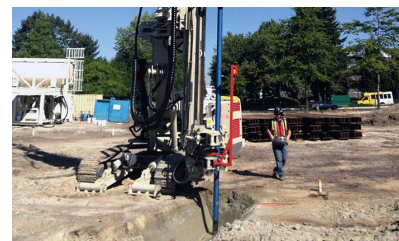
15

Mitigating the potential for caisson movement requires proper reinforcement of bank-side soils

Caisson Mitigation



Jet Grout construction in operation



Deep Soil Mixing (DSM) activity in operation



Bank stabilization approach reflects effective mitigation

In designing the system, our team uses:

- ✓ Diverse critical thinking
- ✓ The latest seismic data
- ✓ Leveraging expertise from other critical infrastructure systems
- ✓ Input from industry experts

Questions/Comments

Willamette Intake Facilities Commission

(This page intentionally left blank)

Oregon Legislative Updates

WIF Managing Agency Engagement

Joel Cary
TVWD Water Resources Division Manager

Tualatin Valley Water District

Delivering the Best Water  Service  Value

2019 – Successes



- **DEQ Package 123** –
Approved lab funding for cyanotoxin testing
- **House Bill 2001** –
Housing bill, SDC language removed
- **Senate Bill 935** –
Contracting bill, landscape language removed

2019 – Additional ‘Highlights’



- **Senate Bill 27** –
New fee on public water systems
– Rule language under review
- **Senate Bills 51, 903 & 946** –
Provided OWRD authority to change “type of use” for stored water rights transfers

Oh Wait, There’s MORE...

- HB 2003 – Addressing housing needs (Passed)
- HB 2007 – “Clean” diesel requirements (Passed)
- HB 2084 – OWRD place based planning (Passed)
- HB 2085 – Dam safety regulations (Passed)
- HB 2250 – Governor’s “EPA” (Passed)
- HB 2306 – Substantial completion permits (Passed)
- HB 2331 – Well construction enforcement limits
- HB 2415 – Retainage above \$500k (Passed)
- HB 2656 – Prohibited forest practices related to source water
- HB 2769 – Qualitative bid selection (Passed)
- HB 2835 – Recreational use of waterways notifications (Passed)
- HB 2853 – OWRD registry of historic reservoirs
- HB 2856 – OWRD ground water study
- HB 2944 – Drinking water task force
- HB 3182 – On-site water re-use
- HB 3326 – HABs (2020 Legislative Workgroup)
- SB 408 – Siting public utilities in EFU (Passed)
- SB 791 – Connected ground water rights

2020 Engagement & Next Steps

- **HABs Legislative Workgroup** –
Convened by Rep Helm
Chaired by Reps Zika and Wilde
 - **Monitoring:**
Rian Hooff & Aaron Borisenko
 - **Prediction, Prevention, & Treatment:**
Joel Cary & Suzanne DeLorenzo
 - **Response & Mitigation:**
Peter Fernandez & Chris Wanner
- **OWUC** – 2020 Legislative “Drive-in”



Questions?

Thank you