

# Portland Water Bureau Bull Run Filtration Facility and Pipeline Beneficial Use Determination

DEQ Public Meeting

Jun. 11, 2024

In-person and Zoom Meeting

# Using Zoom Webinar

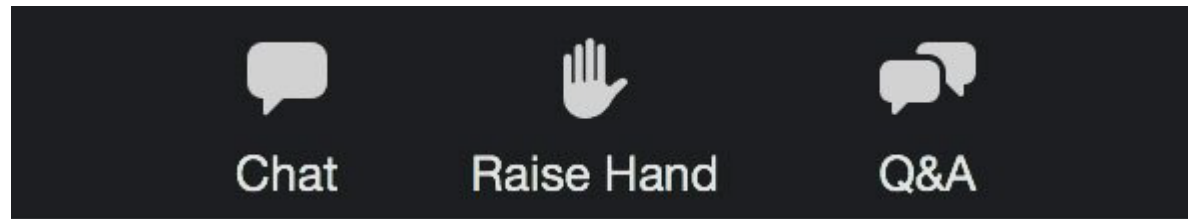
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- Hear the audio either through your computer or by calling in by phone with the phone number provided upon registration.
- Note that you will not be able to speak unless the host enables your audio and then you unmute.

# Asking a Question

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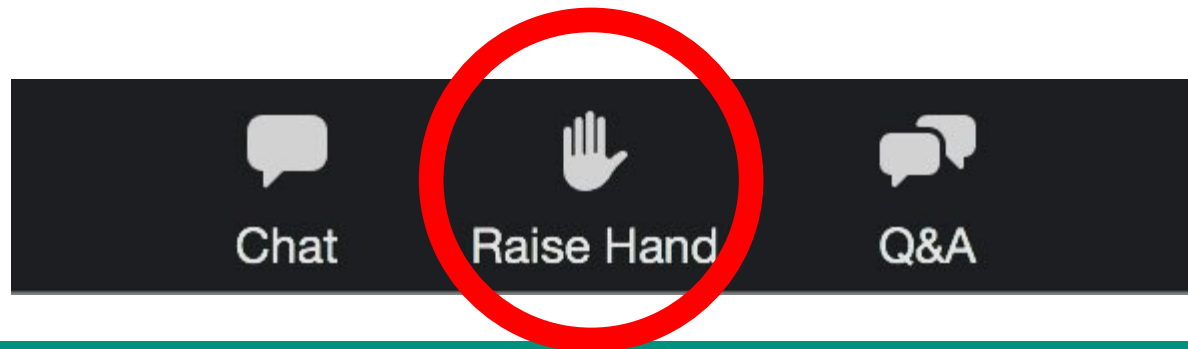
- You should see the following along the bottom of your screen.



- To ask a question: type it into the Q&A or raise your hand and the host will un-mute you. (\*9 if you're on the phone)
- Use chat if you're having technical difficulties.

# Making a Comment

- During the Q&A portion of the meeting, raise your hand to comment
- We'll rotate between people in person and people on the zoom call and call on folks in the order their hand was raised
- Remember \*9 if you're listening by phone
- State and spell your first and last name



# Purpose of Today's Meeting

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## Why are we here

- Share information about the proposed BUD
- Answer questions
- Hear any concerns you have
- Provide information on how you can submit written comments on the proposed BUD

*As always, please speak for yourself and be respectful of others.*

# Bull Run Filtration Facility and Pipeline Beneficial Use Determination

Ryan Lewis, PE, Solid Waste Engineer



State of Oregon  
Department of Environmental Quality

# Beneficial Use Determination

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DEQ supports beneficial use of solid waste, such as these contaminated soils, in lieu of disposal at a permitted solid waste facility, as long as the proposed re-use meets conditions of the rule and is adequately protective of human health and the environment.

DEQ has evaluated the applications and proposes to issue approvals of the proposed beneficial use requests.

# Clean Fill Screening Levels

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Clean Fill - as defined in DEQ regulations, means “material consisting of soil, rock, concrete, brick, building block, tile or asphalt paving, which do not contain contaminants that could adversely impact the waters of the state or public health.”

Clean Fill Screening Levels determine whether a waste material is clean fill or needs to be regulated as a solid waste.

Clean Fill Screening Levels use background metals concentrations or the lowest of human or ecological screening values. Typically, ecological screening levels are the most conservative values.



# Risk-Based Concentrations



Oregon environmental cleanup law and regulations require a risk-based approach for assessing and managing environmental contamination.



The Risk Based Decision Making Guidance assists in evaluating risks to human health and the environment.



Risk-based concentrations (RBCs) calculations are based on exposure scenarios, pathways, and routes.

# Exposure Scenarios



The residential exposure scenario includes contact with soil 350 days/year for 26 years. A portion of that time includes a child playing in the backyard with greater contact with soil.



The occupational exposure scenario includes adults working 250 days/year for 25 years.



The construction worker scenario includes 250 days/year for 1 year.



The excavation worker scenario includes 9 days of exposure.



The leaching to groundwater scenario assumes groundwater is used as residential drinking water (2 L/day for 350 days/year for 26 years).

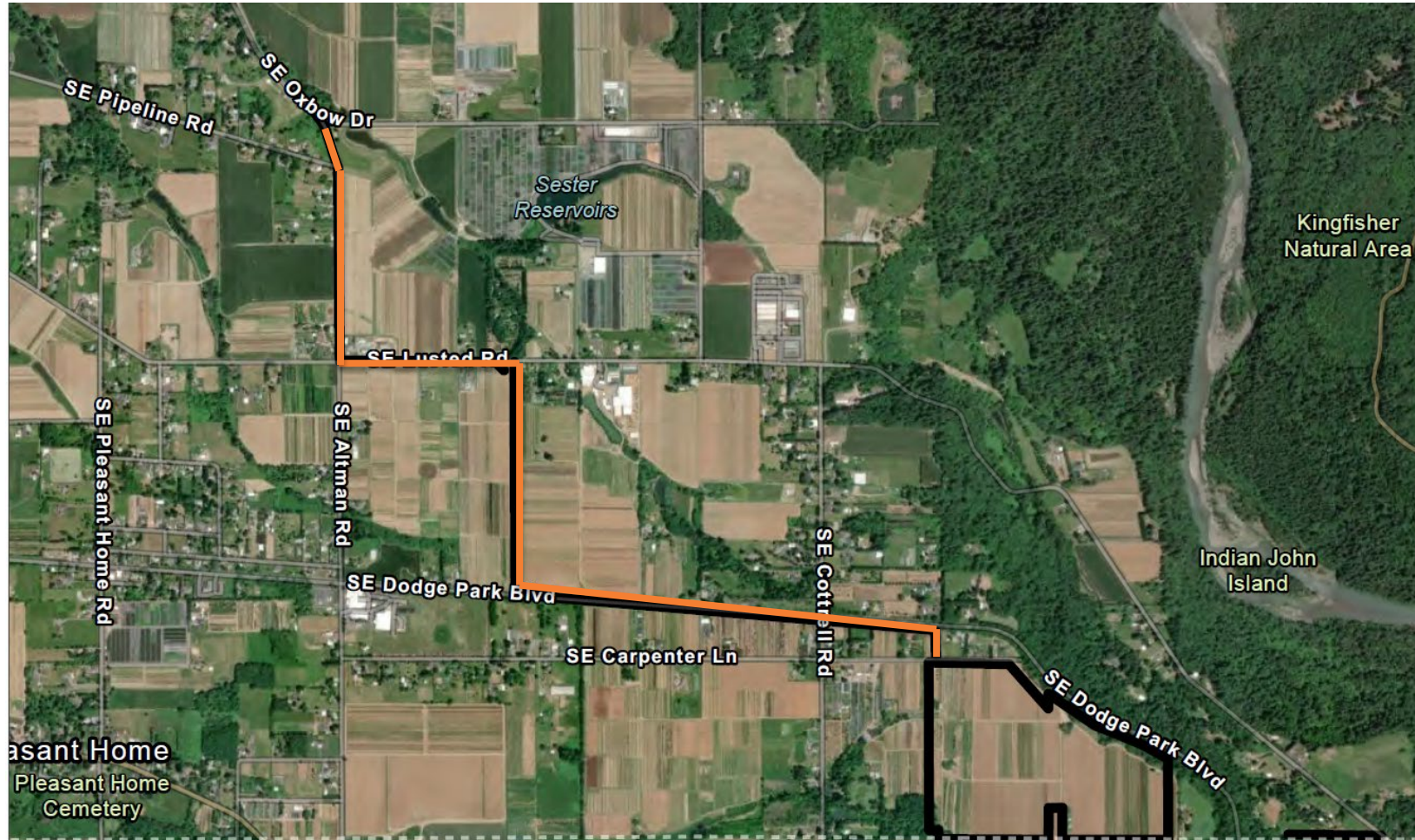
# PWB Filtration Facility



Picture from the Clean Fill Determination Report, PBS 2024



# Finished Water Pipeline Alignment



Clean Fill Determination Report, PBS 2024

# Filtration Facility Property Soil Analysis

## Filtration Water Facility Property And Raw Water Connection

Constituent Name	Concentration Detected in Soil		Screening Level Values				
	Low	High	Oregon Clean Fill	Residential	Occupational	Construction/Excavation Worker	Leaching to Groundwater
Sum DDT <sup>1</sup>	0.01034	0.114	0.0063	1.8	8.2	9.7/270	2.6
Dieldrin	0.00228	0.0366	0.0045	0.034	0.14	1.2/33	0.03
Arsenic <sup>2</sup>	<2.63	3.25	8.8	0.43/8.8	1.9/8.8	15	-
Lead	9.96	12.8	28	400	800	800	30

**Notes:**

Analytical data from "Clean Fill Determination Report" for the Bull run Filtration Facility, Gresham Oregon, January 2024.

All concentrations in mg/kg

1 "Sum DDT" represents the sum of detected pesticide chemicals which include DDD, DDE, and DDT. For human health screening levels, the lowest value for the individual chemicals is shown.

2 Human Health clean-up values for arsenic default to background value, since risk-based value is less than background.

Concentrations represent Oregon Background Metals Concentrations in Soil for Portland Basin.

     Highlight indicates high value of concentration detected in Soil exceeds applicable screening level value.



# Finished Water Pipeline Soil Analysis

## Finished Water Pipeline Alignment

Constituent Name	Concentration Detected in Soil		Screening Level Values				
	Low	High	Oregon Clean Fill	Residential	Occupational	Construction/Excavation Worker	Leaching to Groundwater
Heavy Oil	<36.6	195	1,100	1,100	14,000	4,600	9,500
Sum DDT <sup>1</sup>	0.00595	0.1533	0.0063	1.8	8.2	9.7/270	2.6
Dieldrin	<0.00197	0.0207	0.0045	0.034	0.14	1.2/33	0.03
Arsenic <sup>2</sup>	2.94	4.85	8.8	0.43/8.8	1.9/8.8	15	-
Lead	10	28.3	28	400	800	800	30

### Notes:

Analytical data from "Clean Fill Determination Report" for the Bull run Filtration Facility, Gresham Oregon, January 2024.

All concentrations in mg/kg

1 "Sum DDT" represents the sum of detected pesticide chemicals which include DDD, DDE, and DDT. For human health screening levels, the lowest value for the individual chemicals is shown.

2 Human Health clean-up values for arsenic default to background value, since risk-based value is less than background.

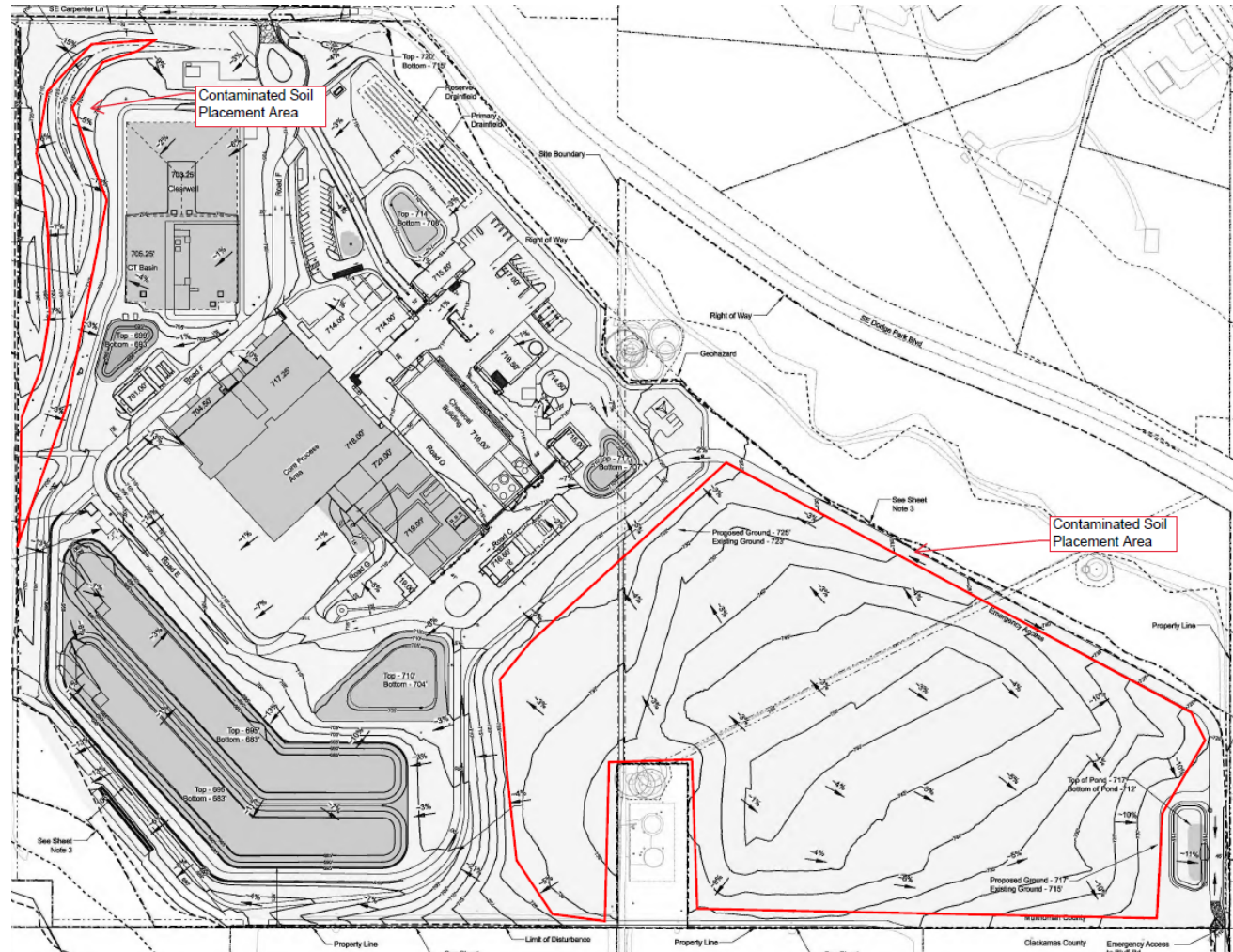
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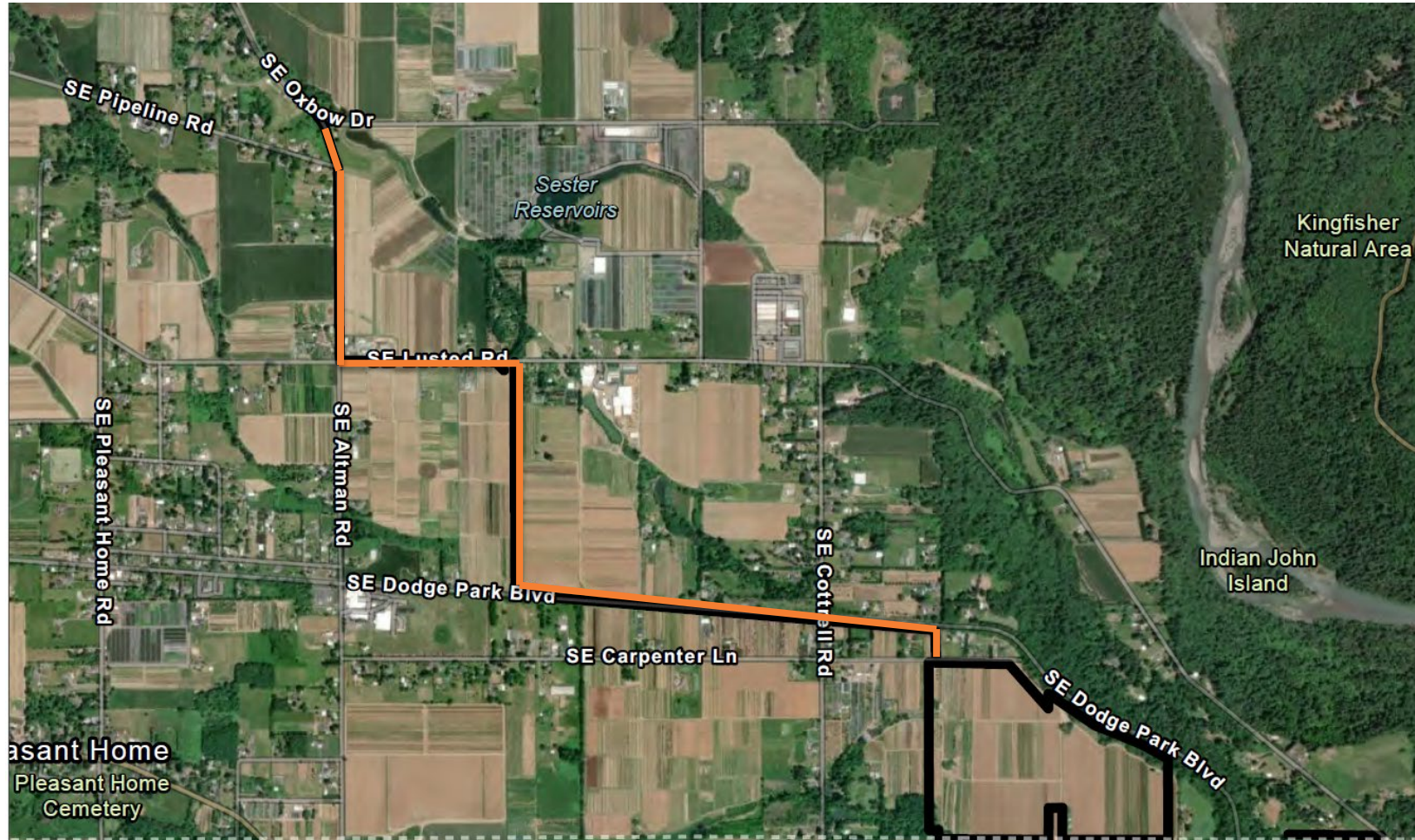


# Reuse at Filtration Facility Location

Filtration Facility BUD  
Application, PWB 2024



# Reuse at Finished Water Pipeline Facility



Clean Fill Determination Report, PBS 2024



# Beneficial Use Conditions (1)

The contaminated soils be managed to prevent, at all times, windblown dust, runoff and erosion, releases to the environment or nuisance conditions.

The contaminated soils will not be placed where they could come into contact with or adversely impact surface water or groundwater.

The contaminated soils will be used as non-structural fill and will be stockpiled during the filtration facility construction according to the requirements of the Stormwater General Construction Permit 1200-CA.

The contaminated soils will be placed away from environmentally sensitive areas to protect waters of the State (such as wetlands, wildlife refuges and parks).

# Beneficial Use Conditions (2)

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The non-structural fill on the facility property reused will be covered with a protective cap using one of the two following options:

- (1) Geotextile fabric will be placed over contaminated soil upon completion of construction of the Filtration Facility. Fabric will be specified to restrict burrowing of mammals. Additionally, a cap of one foot of material meeting the DEQ definition of “Clean Fill” will be placed over top of the contaminated soil and geotextile barrier; OR
- (2) A cap comprising of three feet of material that meets clean fill criteria is placed over the contaminated soil.

The protective cap will be maintained and vegetated upon completion of the construction of the facility in a manner to prevent erosion.

# Beneficial Use Conditions (3)

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If the conditions of approval cannot be met, the soil must be disposed of at a DEQ permitted landfill or DEQ approved facility.

DEQ will rescind the BUDs if LUBA reverses the county land use approval.

# Questions?



State of Oregon

**DEQ** Department of Environmental Quality

# What Happens Next?



DEQ evaluates all written and verbal comments equally.



DEQ may modify the proposed BUD based on comments.



Comments due July 26, 2024 at 5 p.m.

**Thank you!**



State of Oregon

**DEQ** Department of Environmental Quality