Welcome to our online meeting!

• Choose your phone or computer speakers/microphone for audio. If you use your phone, be sure to mute your computer speakers to prevent sound feedback when you speak.

• Everyone will be muted at the start of the call and when not speaking.

• If you experience technical difficulties, call or text Ray at 253.241.0131, and he will get to you as soon as possible. Thanks!
Meeting Agenda

- 2:00 – Welcome (5)
- 2:05 – Summary of Progress and Goals (10)
- 2:15 – Refresh Description of Alternatives (15)
- 2:30 – Discussion of Framework (75)
- 3:45 – Discussion of Next Steps (10)
- 3:55 – Public Comment (5)
- 4:00 – Adjourn
Using Zoom

Your screen should look like this. The meeting slides will appear in the main window, with video to the side in “gallery mode.”
COST ALLOCATION FRAMEWORK AND NEGOTIATION

Divide Upfront from Long-Term Costs & Mgmt.

Upfront: Legal Agreement w/ Cost Allocation

Use Decision Rules to Allocate Costs

Allocate Costs by Contribution/Benefit Ranking

Equity Test

Allocate Costs by Proxy Variable(s)

Allocate Costs Equally

Negotiated allocation based on “Willingness to Pay” / Political Acceptability
Goals for Today

• Collectively address feedback on the draft cost allocation framework and come to consensus on a path forward.
• Discuss the role of weighting in the framework and explore potential scenarios for assigning weights to contributions and benefits.
• Determine what is needed to support each FGWG member in successfully completing a preliminary implementation of the framework.
• Clarify what is needed to fully inform a legislative decision regarding project construction funding.
DRAFT — Optimized Alternatives

Managed Lake Alternative
DRAFT —
Optimized Alternatives

Estuary Alternative

- Removal of the 5th Avenue Dam to Improve Water Quality
- Maintenance Dredging to Remove Accumulated Sediment
- Restoration of Boating & Fishing in Middle & North Basins
- Establishing Habitat Islands within the Middle & North Basins
- Adaptive Management Plan(s) to Maintain Ecological Functions

Proposed Habitats & Elevations (M NAVD88)

- Upland
- Transitional
- High marsh
- Low marsh
- Mudflat
- Subtidal

Potential Project Area

- Adaptative Pathways
- Project Area selected by Enterprise
- Services Jurisdiction
- Enterprise Services Jurisdiction
- Proposed and Improved Pathways

Estuary Alternative of Map, Plan, High

- Improved Water Quality
- Improve Sediment Accumulation & Tennis Deposition
- Improve Ecological Functions
- Reduce Stormwater Runoff

Capitol Lake – Deschutes Estuary
Long-Term Management Project
Environmental Impact Statement
DRAFT –
Optimized Alternatives

Hybrid Alternative

Optimized Alternatives were developed through a reasonable evaluation process and will be assessed in the Draft EIS.

This report contains preliminary information and is subject to change. Final data will be subject to peer review and final project determination.
Cost Allocation Framework

Allocate Costs by Contribution/Benefit Score

| None | 1 | 2 | 3 | 4 | 5 |

- Combines both contribution and benefit in assigning upfront costs.
- Each entity self-assigns categorical levels (None, 1-5 pt. scale) to define levels of contribution and benefit.
- Assignment is based on response to agreed upon questions that can be answered. Reproducible, not strictly subjective.
- Contribution/benefit categories assigned weight. Weighted sum of responses defines score.
- Cost allocation based on proportional score.
Ranking Factor: Contributions

Definition of Contribution to Existing Conditions

Contribution to existing conditions can be interpreted in many ways. All land uses shape existing conditions to one degree or another: sediment erodes off land and is transported downstream; land use contributes to changes in water quality and ecological function. Culture and environment shape community use. These broad-scale forces and trends shape the Capitol Lake-Deschutes Estuary system, but are not the focus of defining existing conditions in this exercise.

This cost allocation framework defines contribution to existing conditions narrowly, focusing on specific problems within the Capitol Lake Basin the project is seeking to address. The relevant incremental changes that define contribution to existing conditions are those that arise from construction and operation of the 5th Avenue Dam, and associated management actions. Conditions that are present independent of these actions are not relevant in this definition of existing conditions.
Ranking Factor: Contributions

Sediment Management

In an unmanaged system, the natural forces of erosion and sediment transport would be present, just as they are with the managed system. The relevant change contributing to existing conditions is the disruption in sediment transport and absence of management actions. Thus, compared to an actively-managed system or system without the 5th Avenue Dam:

1. Has the entity contributed to the accumulation and required maintenance of sediment within the Capitol Lake Basin? (Y/N)
2. If yes, relative to others, how does contribution rank? (1-5)
Ranking Factor: Contributions

Degraded Ecological Function

In an unmanaged system, ecological function would be shaped by myriad factors, from local (land use) to global (climate). The relevant change contributing to existing conditions is presence of nuisance and invasive species and limited management actions, pervasive aquatic plants, etc. Thus, compared to an actively-managed system or a system without the 5th Avenue Dam:

1. Has the entity contributed to the system’s degraded ecological functions? (Y/N)
2. If yes, relative to others, how does contribution rank? (1-5)
Water Quality Standard Violations

Water quality is legally managed to protect public health and the environment. Many different activities contribute to degraded water quality, some requiring regulation. The current system creates conditions that may violate water quality standards in the project area. Thus, compared to an actively-managed system or a system without the dam:

1. Has the entity contributed to the system’s degraded water quality or an inability to achieve applicable water quality standards? (Y/N)

2. If yes, relative to others, how does contribution rank? (1-5)
Ranking Factor: Contributions

Restricted Active Community Use

Community use of a resource varies depending on the goods and services the resource provides. Under existing conditions, community use has been restricted as part of management strategies designed to control the spread of invasive species and protect public health. Thus, compared to an actively-managed system or a system without the dam:

1. Has the entity contributed to restricted community use of the system? (Y/N)
2. If yes, relative to others, how does contribution rank? (1-5)
Ranking Factor: Contributions

Summary of Contribution to Existing Conditions

Sediment management score:
Degraded ecological function score:
Water quality standard violations score:
Restricted active community use score:

Total score:

N=0, 1-5
Ranking Factor: Benefits

Definition of Benefits

The purpose of this cost allocation framework is to distribute the costs of upfront construction activities required to address existing conditions and stabilize the system in a form where ongoing management activities will maintain it. Upfront construction activities will result in specific changes for each alternative, relative to a no-action alternative.

This cost allocation framework defines benefit as a positive change in value or a cost reduction that arises from the actions taken during the construction phase of the project, relative to a no-action alternative.
Ranking Factor: Benefits

Sediment Management

- Construction action proposed to improve sediment management
  - *Managed Lake*: Dredging in the North Basin
  - *Estuary and Hybrid*: Dredging in the North and Middle Basins before dam removal

- Added benefits from construction action
  - *Managed Lake*: pre-dredging means that after construction, less sediment passes through the dam compared to the No Action Alternative.
  - *Estuary and Hybrid*: compared to the No Action Alternative, more sediment will move downstream of the dam in both alternatives. However, pre-dredging during construction will reduce sediment transport and dredging requirements during long-term operation.
### Ranking Factor: Benefits

**Sediment Management**

1. Will the entity benefit from actions to address existing sediment accumulation in the basin? (Y/N)
2. If yes, relative to others, how much would the entity benefit? (1-5)
Ranking Factor: Benefits

Enhanced Ecological Function

- Construction action proposed to enhance ecological function
  - All Alternatives: Beneficial reuse of dredge material to construct habitat areas
- Added benefits from construction action
  - All Alternatives: Habitat areas constructed and planted to further improve ecological diversity compared to open water or tidal flats alone
    - Habitat areas of keen interest to community
## Ranking Factor: Benefits

<table>
<thead>
<tr>
<th>BENEFITS FROM CONSTRUCTION</th>
<th>Sediment Management</th>
<th>Enhanced Ecological Function</th>
<th>Water Quality Improvements</th>
<th>Restored Active Community Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managed Lake</td>
<td>N 1 2 3 4 5</td>
<td>N 1 2 3 4 5</td>
<td>N 1 2 3 4 5</td>
<td>N 1 2 3 4 5</td>
</tr>
<tr>
<td>Estuary</td>
<td>N 1 2 3 4 5</td>
<td>N 1 2 3 4 5</td>
<td>N 1 2 3 4 5</td>
<td>N 1 2 3 4 5</td>
</tr>
<tr>
<td>Hybrid</td>
<td>N 1 2 3 4 5</td>
<td>N 1 2 3 4 5</td>
<td>N 1 2 3 4 5</td>
<td>N 1 2 3 4 5</td>
</tr>
</tbody>
</table>

### Enhanced Ecological Function

1. Will improved ecological function produce benefits (enhanced value) for the population the entity represents, or the entity itself? (Y/N)
2. Will the entity have avoided or reduced costs related to the ecological improvements that result from construction? (Y/N)
3. If yes, relative to others, how much would the entity benefit? (1-5)
Ranking Factor: Benefits

Improved Water Quality

- Construction action proposed to improve water quality
  - **Managed Lake**: Indirect benefits from construction actions, and benefits from implementation of the long-term adaptive management plan during operation.
  - **Estuary and Hybrid**: Removal of 5th Avenue Dam
  - **Hybrid**: Tide gate in barrier wall

- Added benefits from construction action
  - **Managed Lake**: Water quality improvements materialize following actions taken during operation.
  - **Estuary and Hybrid**: Increased flushing in Budd inlet, resulting in potential changes to TMDL allocation.
Ranking Factor: Benefits

**Water Quality Improvements**

1. Will improved water quality produce benefits (enhanced value) for the population the entity represents, or the entity itself? (Y/N)
2. Will the entity have avoided or reduced costs related to water quality improvements that result from construction? (Y/N)
3. If yes, relative to others, how much would the entity benefit? (1-5)
Ranking Factor: Benefits

Restored Community Use

- Construction action proposed to restore active community use
  - *All Alternatives*: Construction of boardwalks, docks, hand-carried boat launches, and decontamination stations

- Added benefits from construction action
  - *All Alternatives*: Constructing recreational infrastructure means that after construction, active use can be restored rather than just passive uses available under the No Action Alternative
    - Boating, fishing, and overwater experiences
### Ranking Factor: Benefits

<table>
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<th>Water Quality Improvements</th>
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</tr>
</tbody>
</table>

**Restored Active Community Use**

1. Does the entity represent population that will recreate in the basin? (Y/N)
2. Will the entity receive revenue/spending from enhanced recreational use? (Y/N)
3. If yes, relative to others, how much would the entity benefit? (1-5)
## Ranking Factor: Benefits

<table>
<thead>
<tr>
<th>Benefits from Construction</th>
<th>Sediment Management</th>
<th>Enhanced Ecological Function</th>
<th>Water Quality Improvements</th>
<th>Restored Active Community Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managed Lake</td>
<td><img src="scores.png" alt="Scores" /></td>
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</tr>
</tbody>
</table>

### Score for Benefits from Construction

<table>
<thead>
<tr>
<th>Managed Lake</th>
<th>Estuary</th>
<th>Hybrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>$B_{ML}$</td>
<td>$B_{E}$</td>
<td>$B_{H}$</td>
</tr>
</tbody>
</table>
Weighting Contributions & Benefits

<table>
<thead>
<tr>
<th>CONTRIBUTIONS TO EXISTING CONDITIONS</th>
<th>SCORE</th>
<th>BENEFITS FROM CONSTRUCTION</th>
<th>Managed Lake</th>
<th>Estuary</th>
<th>Hybrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEIGHT</td>
<td>X%</td>
<td></td>
<td>B_{ML}</td>
<td>B_{E}</td>
<td>B_{H}</td>
</tr>
<tr>
<td>WEIGHTED SCORE</td>
<td>(C \times X%)</td>
<td></td>
<td>(B_{ML} \times Y%)</td>
<td>(B_{E} \times Y%)</td>
<td>(B_{H} \times Y%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL SCORE (Weighted Contribution + Weighted Benefit)</th>
<th>Managed Lake</th>
<th>Estuary</th>
<th>Hybrid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(C \times X%) + (B_{ML} \times Y%)</td>
<td>(C \times X%) + (B_{E} \times Y%)</td>
<td>(C \times X%) + (B_{H} \times Y%)</td>
</tr>
</tbody>
</table>

This is a placeholder. The group will define the weight through discussion and consensus.
Determining Cost Allocation

Converting Score Into Cost Share (Percent of Allocation)

- Entity’s score as a percent of overall responsibility defines allocation.
- Each alternative may have a different score and cost allocation.

\[
\text{Entity 1 Weighted Score} + \text{Entity 2 Weighted Score} + \text{Entity 3 Weighted Score} + \text{Entity 4 Weighted Score} + \text{Entity 5 Weighted Score} + \text{Entity 6 Weighted Score} + \text{Entity 7 Weighted Score} = \% \text{ of Cost Allocated to Entity, for each Alternative}
\]
Equity

- Divide Upfront from Long-Term Costs & Mgmt.
- Upfront: Legal Agreement w/ Cost Allocation
- Long-Term: Address for Pref. Alternative
- Use Decision Rules to Allocate Costs
  - Allocate Costs by Contribution/ Benefit Ranking
  - Allocate Costs by Proxy Variable(s)
  - Allocate Costs Equally
- Equity Test
  - Negotiated allocation based on “Willingness to Pay” /Political Acceptability
Equity

Include All Entities
• Chosen framework is basis for cost allocation alone. Outcome assumed equitable.

Explicitly Exclude Entity from Allocation
• Guiding principles and economic foundations allow consideration of equity issues independently.
Goals for Today — Discussion Question

• Collectively address feedback on the draft cost allocation framework and come to consensus on a path forward.
• Discuss the role of weighting in the framework and explore potential scenarios for assigning weights to contributions and benefits.
• Determine what is needed to support each FGWG member in successfully completing a preliminary implementation of the framework.
• Clarify what is needed to fully inform a legislative decision regarding project construction funding.