ECONOMIC FOUNDATIONS FOR FUNDING AND GOVERNANCE
Challenge

Develop a funding and governance agreement that finances the Capitol Lake EIS preferred alternative that is

• Efficient,

• Equitable, and

• Sustainable
Guiding Principles

- Dedicated and secure funding sources.
- Those who contribute to the problem should participate in funding or paying for the solution.
- Those who benefit from the solution should participate in funding or paying for the solution.
- Shared distribution of costs.
- State participation.
- Watershed-wide in scale.
- Manageable governance structure.
- Commitment to a long-term collaborative process.
- Adequately resourced administration.
- Support the goals and objectives of both the CL/LDW management plan, as well as goals for the future of the overall watershed.
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Application of Economic Theory

How do we define value?

How do we define efficiency?

What conditions help lead to agreement?

How does equity affect agreement?
### Economic Theory – How do we define value?

<table>
<thead>
<tr>
<th>Rival</th>
<th>Excludable</th>
<th>Non-Excludable</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Private</td>
<td>Common</td>
</tr>
<tr>
<td>Non-Rival</td>
<td></td>
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</tbody>
</table>
Economic Theory – How do we define value?

Implications for Funding Mechanisms

<table>
<thead>
<tr>
<th>Potential Change</th>
<th>Type of Value</th>
<th>Potential Funding Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Property Values</td>
<td>Private</td>
<td>Local Property Tax Levy</td>
</tr>
<tr>
<td>Downtown Business Revenue</td>
<td>Private</td>
<td>Sales Tax</td>
</tr>
<tr>
<td>Budd Inlet Dredging Costs</td>
<td>Private/Club</td>
<td>Direct transfer to/from marina and Port</td>
</tr>
<tr>
<td>Fishery Catch rates</td>
<td>Common</td>
<td>License/Permit Fee</td>
</tr>
<tr>
<td>Non-use Ecosystem Services</td>
<td>Public</td>
<td>Direct funding from/to DNR, Ecology</td>
</tr>
<tr>
<td>Recreational Use Value</td>
<td>Public</td>
<td>Direct funding from/to City of Olympia</td>
</tr>
</tbody>
</table>
Economic Theory – How do we define efficiency?

Pareto Efficient outcomes occur when:

• At least one party is made better off, and
• No parties are made worse off.
Economic Theory — How do we define efficiency?

**Pareto Efficient** outcomes occur when:

- At least one party is made better off, and
- No parties are made worse off.
Economic Theory — What conditions help lead to agreement?

Introduction to Coasian Bargaining

Factory generates pollution that negatively affects downstream Fisherman.
Factory can spend money to 1) reduce pollution, 2) compensate Fisherman.
Fisherman can pay Factory to reduce pollution.
Economic Theory — What conditions help lead to agreement?

Introduction to Coasian Bargaining

Coase Theorem (Part I):
- When there are well-defined property rights and costless bargaining, then negotiations between the party creating the externality and the party affected by the externality can bring about the socially optimal market quantity.

Coase Theorem (Part II):
- The efficient quantity for a good producing an externality does not depend on which party is assigned the property rights, as long as someone is assigned those rights.
Economic Theory – How does equity affect agreement?

The Ultimatum Game

- **Step 1:** Individual 1 is given some amount of money.
- **Step 2:** Individual 1 chooses to share some of that money with individual 2.
- **Step 3:** Individual 2 chooses to accept the allocation, or reject it (and neither individual gets anything).
Economic Theory — How does equity affect agreement?

The Ultimatum Game

Results:

• Average offers are around 40-50% 

• About half of the responders reject offers below 30% 

• Allocation of the offer matters more then the absolute amount
Applying Theory to Practice

- Identify beneficiaries and types of value
  - Downtown businesses, Port, local residents, the State, others?

- Are property rights clearly understood?
  - Revenue, dredging costs, property values, ecosystem services, others?

- Is bargaining costless?
  - Are the right people at the table?

- What does an efficient outcome look like?
  - Are any parties going to be made worse off?

- Is an outcome equitable?
  - Would a party accept an allocation if they weren’t at the table?