Adapting Transportation to Extreme Weather and Climate Change

Oregon Transportation Infrastructure Impacts and Strategies

Oregon Global Warming Commission
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**Mitigation vs. Adaptation**

Statewide Transportation Strategy... to Climate Change Adaptation Strategy

<table>
<thead>
<tr>
<th>Mitigation</th>
<th>Comprehensive (Everyone)</th>
<th>Publically vetted</th>
<th>Complete Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptation</td>
<td>Inward Facing (ODOT only)</td>
<td>Internally developed</td>
<td>Preliminary Assessment</td>
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</tbody>
</table>
State Resources

The Oregon Climate Change Adaptation Framework

December 2010

The Third Oregon Climate Assessment Report
January 2017

Oregon Climate Change Research Institute
Impacts on Transportation

- Extreme temperatures, wildfires
- Coastal storm surge, sea level rise, bluff erosion
- Extreme precipitation storms, flooding, landslides
Benefits
Proactive strategies that support ODOT’s mission

Considers future hazards and risks

Lower maintenance and operations costs

Informs investment decisions
Adapting to changing conditions

OR 35 – White River Bridge reconstruction

US 395 – Vance and Sheep Creek culvert replacements

US 101 – Necanicum River Floodplain Restoration
Preparing for the future...

An Adaptation Menu of Investment Options

- Asset Programs
- Priority Corridors
- Maintenance/Operations
Asset Programs
Investment Options

- Culverts
- Landslides and rockfall
- Bridges
Priority Corridors

Investment Options

- Fix It Priority Corridors
- Seismic Lifeline Routes
- Highest Vulnerability
Maintenance and Operations

Investment Options

- Drainage, slope stability, erosion control
- Vegetation management
- Surface and shoulder maintenance
- Structure and scour protection
- Snow and ice removal
- Advanced signage (ITS)
Statewide Vulnerability Assessment and Adaptation Plan

- Determine where and when infrastructure is most vulnerable
- Identify needed projects, programs and investments
- Prioritize agency actions
- Integrate climate data, strategies into planning and asset management
Questions?

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