# Adapting Transportation to Extreme Weather and Climate Change



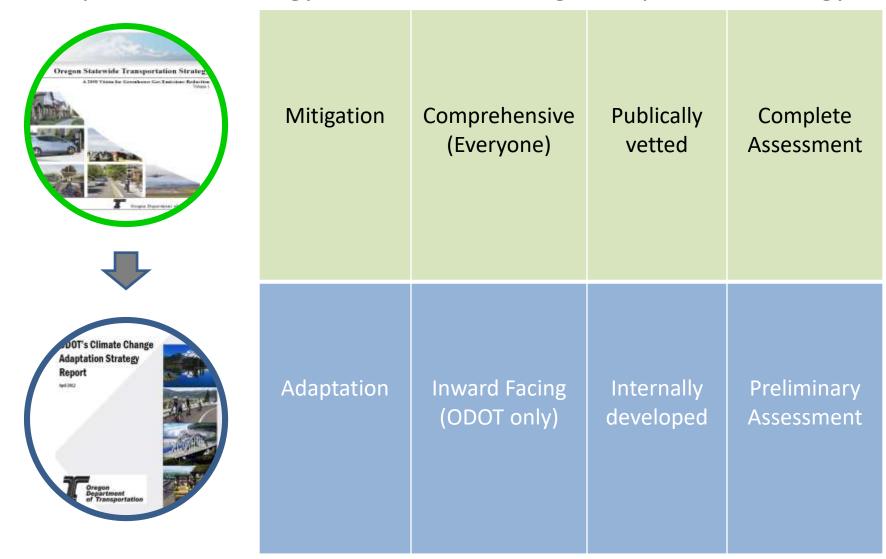
Oregon Transportation
Infrastructure Impacts and Strategies

Oregon Global Warming Commission January 30, 2020

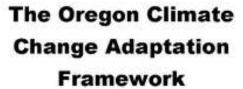
Geoff Crook
Oregon Department of Transportation

### Mitigation vs. Adaptation

Statewide Transportation Strategy... to Climate Change Adaptation Strategy

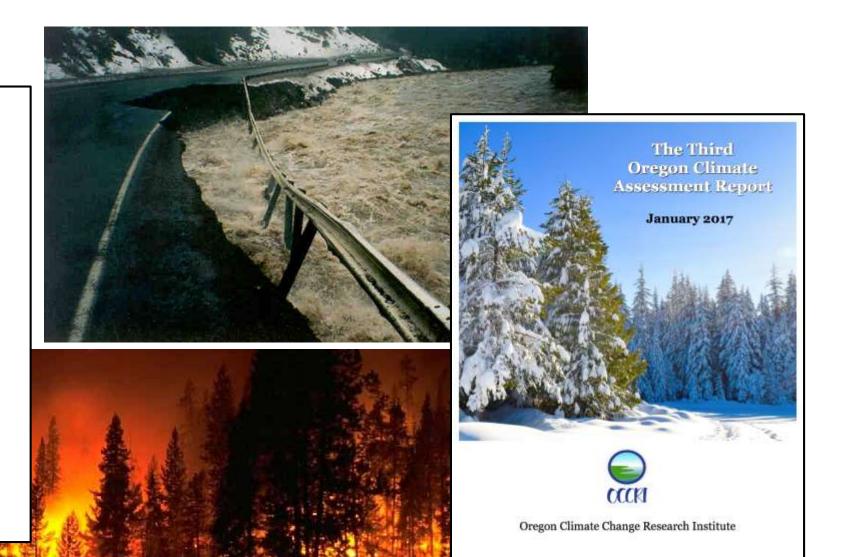


### **State Resources**



December 2010





### **Impacts on Transportation**









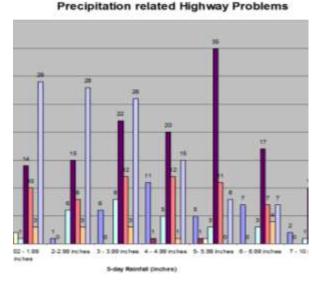
- Extreme temperatures, wildfires
- Coastal storm surge, sea level rise, bluff erosion
- Extreme precipitation storms, flooding, landslides

### **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

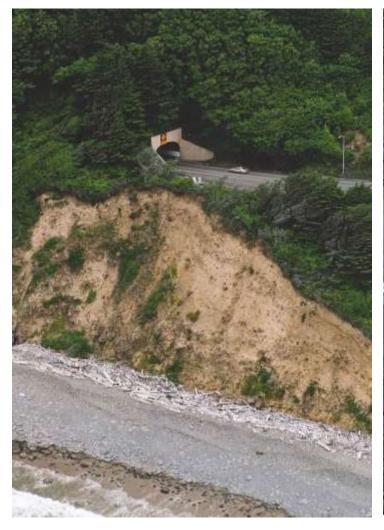




### **Priority Corridors**

**Investment Options** 

- Fix It Priority Corridors
- Seismic Lifeline Routes
- Highest Vulnerability

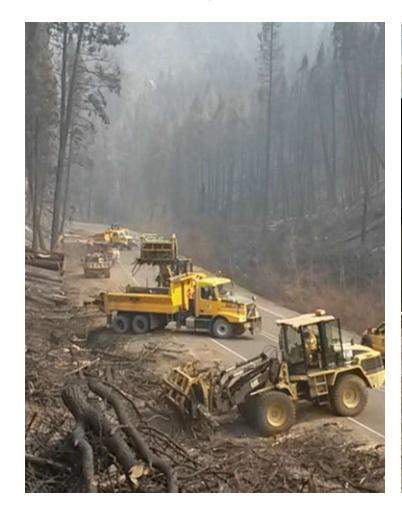






### **Maintenance and Operations**

**Investment Options** 





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

### **Next Steps**



## 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

