



Oregon

Theodore R. Kulongoski, Governor

Seismic Safety Policy Advisory Commission

Oregon Emergency Management

P.O. Box 14370

Salem, OR 97309-5062

(503) 378-2911

FAX (503) 373-7833

Date: May 24, 2010
To: House Transportation Committee
From: Oregon Seismic Safety Policy Advisory Commission (OSSPAC)
Yumei Wang, PE, DOGAMI representative on OSSPAC
Subject: Earthquake Preparedness of Bridges and Transportation System

Oregon Seismic Safety Policy Advisory Commission (OSSPAC) is pleased to provide testimony on earthquake preparedness of bridges and Oregon's transportation system. Our mission is to reduce earthquake risks by: (a) developing and influencing policy at the federal, state and local levels; (b) facilitating improved public understanding and encouraging identification of risk; (c) supporting research and special studies; (d) supporting appropriate mitigation; and (e) supporting response and recovery. One role of the Commission is to review and advise the Governor and Legislative Assembly on plans and proposals addressing seismic hazards.

In March 2010, OSSPAC was presented with an overview of a 2009 ODOT report, "Seismic Vulnerability of Oregon State Highway Bridges." ODOT reports that ODOT bridges will likely impair transportation mobility along Highway 101, on all routes between the coast and valley, and sections of Interstate 5, as well as experience over \$1 billion of damage in a large Cascadia earthquake. Furthermore, at ODOT's current pace of seismic bridge improvements, it would take over 200 years to strengthen the 900-some seismically vulnerable priority bridges. Although OSSPAC commends ODOT's engineering studies and other ongoing earthquake preparedness efforts, OSSPAC remains highly concerned about the reliability of the transportation system after an inevitable Cascadia earthquake, which is the state's most likely widespread disaster.

Due to the importance of transportation mobility, OSSPAC has developed a *draft* policy on seismic transportation reliability (outlined below). ***OSSPAC suggests the creation of 1) a new Seismic Transportation Reliability Plan, and 2) a new Seismic Transportation Reliability Program.***

1. New Seismic Transportation Reliability Plan

- ❖ Identify emergency seismic transportation routes, in partnership with local transportation agencies. Transportation routes to include bridges, roads, tunnels, embankments, culverts, retaining walls.
- ❖ Focus on Cascadia earthquakes' multi-hazards, including ground failures, landslides, and tsunamis.
- ❖ Adopt a holistic approach. Consider possible impacts to critical infrastructure, including the energy sector and fuel supply hubs; co-located lifelines, such as water mains on bridges and overhead electrical transmission crossings; resiliency issues, such as available alternative routes.
- ❖ Prioritize using a strategic, cost-effective, risk-based management approach. Consider short, medium and long term actions, including MOUs for quickly securing temporary bridges before mitigation occurs.
- ❖ Create a Task force to assist with development and implementation of seismic transportation reliability plan.

2. New Seismic Transportation Reliability Program

- ❖ Provide funding and an internal ODOT infrastructure that supports implementing the seismic transportation reliability plan.
- ❖ Manage mitigation activities until transportation system has resiliency from Cascadia earthquakes.