



# Oregon

Kate Brown, Governor

## Land Conservation and Development Commission

635 Capitol Street NE, Suite 150

Salem, Oregon 97301-2540

Phone: (503) 373-0050

Fax: (503) 378-5518

[www.oregon.gov/LCD](http://www.oregon.gov/LCD)

May 12, 2015



**To:** The Honorable Representative John Lively, Chair  
House Committee on Veterans and Emergency Preparedness

**From:** Jim Rue, Director  
Department of Land Conservation and Development

**Regarding:** **DLCD Tsunami Planning Work**

Chair Lively and members of the committee, thank you for the opportunity to provide this update on the work of the department related to tsunami hazard planning. As the state's land use planning agency, our charge related to natural hazards is to work with and assist our local government partners in their efforts to reduce the risk from natural hazards through comprehensive planning. Much of our recent natural hazards work with Oregon's coastal communities has focused on addressing the risks from a local Cascadia event tsunami. What follows is a brief description of some of that work, and a summary of some of the important policy issues related to addressing tsunami risk through local comprehensive planning.

### **Background**

We have learned much over the past decade about tsunami hazard risk and specifically about the potential for a catastrophic Cascadia subduction zone tsunami along our coast. A significant milestone in our knowledge base related to tsunami hazards was the completion and publication of the Department of Geology and Mineral Industries (DOGAMI) Tsunami Inundation Maps or TIMs, completed in June, 2013. Thanks to this outstanding work by DOGAMI, we now have a substantially greater understanding of the risks our coastal communities face from a tsunami event.

One application for this improved knowledge base is the integration of land use based tsunami resilience measures into the comprehensive plans of at-risk communities. Local governments in Oregon may, through the exercise of their land use planning authority and the application of Statewide Planning Goal 7, establish local land use measures addressing tsunami hazards. The department strongly supports efforts by local governments to develop and implement such measures, and we are actively providing technical assistance to coastal communities to further that work.

The department was also an active participant in the OSSPAC effort which produced the Oregon Resilience Plan. Among other land use recommendations contained in the plan is a directive to develop land use guidance to assist local governments in addressing tsunami hazards; the department has recently completed that work.

### **Tsunami Land Use Guide**

The publication *Preparing for a Cascadia Subduction Zone Tsunami: A Land Use Guide for Oregon Coastal Communities*, prepared by the Department of Land Conservation and Development (DLCD),

was released on January 15, 2014. This tsunami hazard land use guidance was developed by DLCD in partnership with an advisory committee comprised of representatives of local governments and state agencies, and assisted by Cogan Owens Cogan, a multi-disciplinary consulting firm.

The purpose of the publication is to provide guidance to vulnerable communities for incorporating tsunami resilience measures into local land use programs. The land use guide is designed to be tailored by communities to address their individual tsunami risk and location, and outlines a variety of land use planning approaches for reducing tsunami hazard risk. The guide is web based with links to other resources.

The guide includes model comprehensive plan language; a model tsunami hazard overlay zone, and other provisions that can be incorporated into local comprehensive plans and development codes. The guidance materials are designed to be used with the DOGAMI Tsunami Inundation Maps (TIMs) and the DOGAMI time/distance (“Beat the Wave”) modeling (which at present is only partially complete for the Oregon coast). While intended to be comprehensive, the guide focuses primarily on four key concepts related to community development and long range planning:

- **Provision of adequate tsunami evacuation facilities:**  
The guidance identifies the necessary linkages between evacuation facility planning and the land use and development review processes. Suggested measures include requiring new development to consider tsunami hazard and provide adequate evacuation facilities or other mitigation; tsunami evacuation facilities improvement planning and associated implementation tools; and funding strategies that can be used by communities to improve evacuation systems.
- **Zoning provisions and limiting uses:**  
The guide includes a model “tsunami overlay zone” which builds on current statutory limitations on permissible development within tsunami inundation zones (ORS 455.446 and 455.447).
- **Incentives:**  
The guidance also includes suggested measures for providing development incentives to reduce risk and increase the resilience of new development.
- **Long Range Planning:**  
The guide provides land use planning guidance for communities considering the relocation of key community facilities and uses (e.g., emergency services, schools, and hospitals). This guidance includes a discussion of the considerations for urban growth boundary expansion when necessary to accommodate key facility relocation above tsunami hazard zones, and the need to limit risk on vacated sites. The guide also addresses larger scale comprehensive pre-disaster land use planning, including a discussion of strategies that may involve planning and relocation over time of portions of a community at highest risk.

### **Current Work with Local Governments**

The department is currently providing outreach and education to communities up and down the Oregon coast. Several communities have expressed interest in incorporating additional tsunami resilience measures into their local planning programs utilizing some or all of the concepts in the department’s tsunami land use guide. Clatsop County has recently initiated a planning effort to incorporate tsunami

hazard considerations into the county comprehensive plan. With support from a small technical assistance grant from the department, the county has developed an active advisory committee, has held public outreach open houses, and is developing draft comprehensive plan and development code language based on the department's land use guidance.

The department is actively working to engage additional communities in this important work. It is anticipated that these efforts will be important in identifying how to best approach implementation of "best practices" at the local level and should be useful in informing further discussions on the need for additional state guidance and/or policy.

### **Lessons We Are Learning**

- Incorporating life safety/evacuation considerations into local planning and development decisions is a critical priority. To accomplish this, completion for all coastal communities of the time/distance modeling being produced by the Department of Geology and Mineral Industries is a pressing need. Many of the important planning concepts contained in the department's guidance for evacuation system improvements either require, or can be greatly enhanced by, the use of this modeling. Due to funding limitations, only a few communities on the coast currently have this product available; additional funding is needed to complete this work for the entire coast.
- Based on our experience in the development of the tsunami land use guidance document and through our early work with coastal communities, it is clear that the needs for addressing tsunami hazards vary widely among coastal communities. Among other factors, long established community development patterns present significant challenges in developing land use prescriptions appropriate for all at-risk communities. Although the department's recently published guidance document provides many promising planning concepts to address tsunami hazard, most of these approaches are as yet untested. Pilot efforts at the local level are needed to identify "best practices" and to help assess alternative approaches.
- Achieving additional resilience to tsunami hazard through comprehensive planning requires local implementation. Most of our coastal communities are small, and have ever more constrained resources. To complete the necessary work at the local level, local governments will need both technical and financial support. The department can and will provide necessary technical assistance, but financial resources are needed.

### **Summary**

In summary, the department fully supports the integration of tsunami hazard considerations into local land use planning as an important tool to further increased resilience in our at-risk coastal communities. We are currently working with coastal communities to develop approaches to achieve this integration utilizing the DLCD tsunami land use guidance. While this work is in its early stages, the completion of these pilot efforts will be critical in informing future processes, but additional resources are needed to advance this work.

Thank you for the opportunity to present this testimony.

Copy: Richard Whitman, Governor's Office  
Greg Macpherson, LCDC Chair