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PRE-DISASTER PLANNING FOR CATASTROPHIC DISASTERS RECOVERY

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INTRODUCTION

The Oregon Natural Hazards Workgroup (ONHW) at the University of Oregon's Community Service Center began assessing the need for a holistic approach to post-disaster recovery planning in the Cascadia Region, following the 2004 Sumatra earthquake and tsunami and Hurricane Katrina in 2005. These events proved that most communities are ill-prepared to undertake the long-term, post-disaster recovery and reconstruction efforts necessary to bring a community back following a catastrophic disaster. The goals of this initiative are to (1) build local capacity to identify catastrophic post-disaster long-term recovery issues in coastal communities, and (2) develop long-term recovery plans for coastal communities. Our intent is to establish a holistic and systematic recovery planning initiative for communities, special districts, community organizations, and professional associations in the Cascadia Region (California, Oregon, Washington, and British Columbia).

This initiative would build upon Oregon's successful collaborative hazard mitigation planning model. The intent is to provide a comprehensive, cost-effective approach for partners to bring together resources – both human and financial – to enhance disaster safety and establish long-term recovery strategies for both individual communities and the region as a whole. This memorandum briefly describes the need for the initiative as well as some of the proposed activities and outcomes of the initiative.

WHY IS POST-DISASTER RECOVERY PLANNING NEEDED?

The events of the 2004 Sumatra earthquake and tsunami as well as Hurricane Katrina in 2005 prove that most communities struggle after a catastrophic disaster to develop the long-term, post-disaster recovery and reconstruction efforts necessary to bring a community back following a disaster. One of the biggest obstacles communities faced following Hurricane Katrina was identifying when, where and how to rebuild areas that were damaged. The region continues to struggle with this issue. Catastrophic events require that communities and regions not only prepare for the disasters, but they must also understand their response capabilities and limitations; as well as establish comprehensive risk reduction (e.g., mitigation) and long-term recovery and rebuilding strategies. Communities facing catastrophic events must take a holistic and balanced approach to all of the above identified activities not only to save lives, but to preserve what they call community. Both Sumatra and Hurricane Katrina have highlighted the need for long-term, post-disaster recovery planning for communities at risk to catastrophic hazards.

A June 2006 report by the General Accounting Office on Tsunami Preparedness indicated that "few states and localities have implemented long-term mitigation efforts such as land use restrictions and building design codes to prevent loss of life and reduce economic damage". Overall, state and local emergency managers attributed the variability in tsunami preparedness efforts to a variety of factors, including their focus on other higher priority natural hazards and a lack of funding. According to the National Oceanic and Atmospheric Administration, to effectively prepare for a tsunami, states and localities need to assess the potential impacts of a tsunami on people and infrastructure.

The importance of these issues to coastal communities in the Pacific Northwest is heightened due to its location along the Cascadia Subduction Zone where the Juan de Fuca plate meets the North American plate. Earthquakes generated on this 800 mile-long fault have far more widespread effects than other types of quakes in the region and have the potential to result in catastrophic impacts in coastal communities due to the generation of local tsunamis.

CANNON BEACH, OREGON PILOT PROJECT

In 2006, the Oregon Natural Hazards Workgroup (ONHW) at the University of Oregon's Community Service Center, Cascadia Region Earthquake Workgroup (CREW), the US Geological Survey (USGS), Oregon Emergency Management, and the City of Cannon Beach partnered in an effort to develop a process aimed at better preparing coastal communities for the long-term recovery and reconstruction efforts they may face as a result of a catastrophic Cascadia Subduction Zone earthquake and tsunami event. These ONHW developed and implemented a Community Post-Disaster Recovery Forum designed to (1) gather public input on disaster recovery issues, and (2) develop potential recommendations to address the issues.

Participants included elected officials, city staff, utility providers, school districts, local and regional businesses, and public service providers. The forum was broken into three main sessions, beginning with an introduction to post-disaster recovery – what it is and how it is accomplished – as well as a description of the anticipated impacts of the event based on a scenario developed by CREW. Participants were then asked to identify issues Cannon Beach would face following a Cascadia Subduction Zone event. The issues raised were categorized by themes: population, economy, land and development, and critical facilities and infrastructure. They broke into facilitated groups and began identifying issues and potential solutions.

The resulting findings and recommendations were delivered to the Cannon Beach City Council for consideration. Some of the recommended recovery strategies included:

Oversight related activities

- Establish a Disaster Resilience Committee
- Develop a Cannon Beach Post-Disaster Recovery Ordinance
- Establish comprehensive disaster communication strategies to address both the response and long-term recovery needs of Cannon Beach
- Develop a funding matrix that provides a list of potential funding mechanisms for disaster recovery and mitigation activities
- Coordinate outreach and education programs related to disaster response, recovery, preparedness, and mitigation planning

Critical facilities and infrastructure-related activities

- Conduct a study to determine priorities for post-disaster utility restoration

- Develop long-term strategies for restoring local transportation networks
- Enhance Cannon Beach's seismic needs assessment of critical emergency response buildings and public schools
- Develop a proposal to relocate or retrofit important buildings that are critical to post-disaster recovery efforts

Land and development related activities

- Complete a Buildable Lands Inventory that takes the tsunami inundation zone into account
- Establish a debris management plan

Economy related activities

- Assist businesses in developing business continuity plans
- Create a list of qualified local and regional contractors to perform recovery work post-disaster
- Prepare a City Continuity of Operations Plan for the City of Cannon Beach

Population related activities

- Create a post-disaster housing plan that includes a vacant home database
- Increase communication and outreach through citizen-to-citizen networks that address post-disaster isolation and mental health of elderly, sick, and handicapped populations

This effort resulted in the development of a process that could be replicated in other coastal communities or with special districts located along the Cascadia Subduction Zone. The full report by OHNW is available at www.OregonShowcase.com

WHAT CAN BE DONE TO INCREASE COMMUNITY CAPACITY TO ADDRESS CATASTROPHIC, LONG-TERM POST-DISASTER RECOVERY PLANNING?

Building upon the Cannon Beach Pilot Project, the Oregon Natural Hazards Workgroup is taking the lead on garnering support for the funding, development, and implementation of a regional approach to build local capacity in the Cascadia Region to address catastrophic, long-term, post-disaster recovery planning. This effort will build upon the successes and lessons learned from the Partners for Disaster Resistance & Resilience — Pre-Disaster Mitigation Planning Initiative. Through the mitigation planning initiative, ONHW has coordinating diverse regional partnerships to build local capacity for mitigation planning and projects. The effort assists locals by providing both technical and human resources and is built upon the University of Oregon's Community Service Center's (CSC) service learning model which provides both educational opportunities for students and professional development for local staff while developing local long-term mitigation strategies for the community.

The regional recovery planning initiative would build upon mitigation planning model to increase local capacity to address catastrophic, long-term post-disaster recovery planning by providing both technical and human resources to coastal communities. In order to achieve the objective ONHW suggests the following activities:

- ***Training Programs & Capacity Building***
  Develop and deliver a post-disaster recovery planning training series that includes a session on developing, implementing and documenting a community post-disaster recovery planning forum and another session on implementing the post-disaster work plan developed

through the forum process. These training sessions will be designed as train-the-trainer sessions for local government staff, and regional, state and federal partners.

- ***Technical Resource Development & Research***
  Provide hands-on technical assistance and resources that enables communities to develop and document issues identified in the recovery forum and develop long-term recovery and mitigation plans.

- ***Partnership Development and Coordination***
  Develop and coordinate partnerships. Recovery planning requires communities to think holistically and from a multi-disciplinary perspective. Scientists, decision makers, business leaders, and citizens must work together to make informed decisions using technical resources, scientific information, and community knowledge. It is paramount that someone or group is given the responsibility and resources needed to coordinate and facilitate among the broad and diverse stakeholders involved in long-term recovery planning at the national, regional, state, and local levels.

CONCLUSION:

The Oregon Natural Hazards Workgroup is taking the lead on developing this post-disaster recovery model in the Cascadia Region. The initiative has been gaining momentum. ONHW has received letters of support from a variety of organizations including the Oregon Seismic Safety Policy Advisory Commission, the Oregon Chapter of the American Planning Association, the State's Interagency Hazard Mitigation Team, and Oregon coastal community leaders.

In addition, ONHW has assisted in drafting a bill in support of this initiative that is expected to be introduced in the Oregon Legislature this year. The goal of the collaborative post disaster recovery initiative is to provide a comprehensive, cost-effective approach for partners to bring together resources – both human and financial – to enhance disaster safety and establish long-term recovery strategies for the Cascadia Region.

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