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May 30, 2007

Jennifer Rhoades
NOAA Tsunami Program Coordinator
1325 East West Highway, Room 15440
Silver Spring, MD 20910

Dear Ms. Rhoades:

As you are aware, I was a participant on the National Tsunami Hazard Mitigation Program (NTHMP) Assessment Panel (Panel) that convened at the Pacific Marine Environmental Laboratory from May 15 through 17, 2007. The Panel was assigned 6 questions presented by representatives from the National Oceanic and Atmospheric Administration (NOAA). After hearing presentations from representatives of several coastal states and federal departments, the Panel discussed numerous issues critical to addressing the questions presented. Panel members agreed to develop and endorse a "consensus statement." Therefore, I strongly support the following positions developed by the Panel:

NTHMP Review Committee Consensus Statement

The NTHMP has established a unique partnership among multiple states and federal agencies that has been developed over the past decade, has set challenging goals, and met many of them. This program has institutionalized a partnership between federal and state members that is unmatched by other hazard and risk management programs. The reviewers unanimously agree on the following points:

- NTHMP was established well before the Sumatra tsunami and its goals have been validated by the impacts of that event. Recognition of a broader regional vulnerability to tsunamis, coupled with the success of the NTHMP provided the foundation for the Tsunami Warning and Education Act.
- Despite modest budget allocations, the program has achieved much because the state and federal agency partners have made investments of time and effort that go beyond normal expectations.
- All state and federal NTHMP representatives were highly engaged in the activities of the program and committed to its success.
- The program has expanded beyond a narrow focus on mitigation to include community resiliency. The reviewers endorse this expanded interpretation of the program's goals.

- The representatives recognize that the technology developed and used by the program must be tied to education and awareness in order to be effective.
- The program has allowed states to experiment with alternative methods of achieving tsunami safety. This has resulted in a variety of innovative approaches that now provide an opportunity to develop assessment tools for evaluating their relative effectiveness.
- Since products such as inundation maps have been implemented at the local level, NTHMP is in a unique position to establish performance standards and standardized assessment tools for evaluating its effectiveness.
- There is a strong need for the National Academy of Sciences' review of the forecast/warning system and an external review of the *TsunamiReady* community program.
- The expansion of the NTHMP from the five Pacific states to 29 coastal states, commonwealths, and territories and the passage of the Tsunami Warning and Education Act offers a unique opportunity to strengthen the organizational structure of the program and enhance tsunami resilience in the United States.
- The lessons learned from the existing program should now be transferred to the additional 24 members that have joined the expanded program.
- The overarching goal for all partners is to continue to demonstrate the program's value over the next five years and to achieve a sustainable program.

General Statement

I have worked on tsunami risk and policy issues in California with PMEL since 1991. Since that time, I have sought PMEL's assistance to include a tsunami policy statement in California's Strategic Plan to Reduce Earthquake Losses (California at Risk). My long time experience with tsunami policy and implementation issues, including specific knowledge and information on tsunami hazards cultivated with PMEL staff, has helped me greatly in advancing tsunami risk reduction efforts in California.

I have followed the NTHMP since its inception. As such, my responses to the following questions focus on major federal and state policy issues that will not only improve the NTHMP but California's efforts as well:

1. What are the implications of the Tsunami Warning and Education Act (Act) on the NTHMP's future?

The enactment of the Act elevates the NTHMP to a model hazard reduction program that should be duplicated by other natural hazard reduction programs. In the mid 1990's, the Federal Emergency Management Agency (FEMA) designated 39 states as having an earthquake risk but no federal legislation was developed that would bind these states together in a working relationship similar to what has been provided in the Act.

The Act should be the guiding force for the expanded NTHMP. The Act presents an opportunity

to cost-effectively reduce the tsunami risk to U.S. citizens by utilizing emerging technology and educational outreach programs while providing the states innovative ways of addressing tsunami preparedness and mitigation. Mainstream and popular media coverage of the Sumatra tsunami has, I believe, finally effectively illustrated what a tsunami is and how deadly they can be to the public and under-prepared local governments.

2a. What are the strengths of the state/federal partnership?

An effective state/federal partnership such as is defined under the Act allows the tsunami community to speak with one voice, develop cost-effective products, explore innovations and technologies that have wide application, foster improved communication among partners, and develop and apply applied research results that solve problems. It also provides the partnership a major voice in the Senate and the House of Representatives. .

2b. What are the weaknesses?

Coordinating the actions of 29 non-federal partners will be challenging. Turf issues and distribution of limited resources must be resolved. Coordination of varying priorities and laws, incorporating new ideas, and fostering innovation will require a responsive management structure by NOAA. To develop useable products will require all partners to recognize that state and federal fiscal years do not match in many cases. It will also be a steep learning curve for some new partners to get up to speed on planning for the tsunami risk. States that are more advanced in their tsunami risk reduction efforts must assist those that are not. Some of these states may need a larger share of the funding to get started. Once these new partners are on their way to reducing their tsunami risk, they will be much more likely to support the reauthorization of the Act in the future.

2c. Is there an appropriate distribution of roles and responsibilities between federal and state partners?

Yes! NOAA must be a responsive leader in this partnership. NOAA must make decisions on what is best for the nation as a whole and not show favoritism to any non-federal partner. NOAA must insist on a state-funding match, as this is the most cost-effective way to help fund tsunami risk reduction programs with non-federal partners.

3. Is the program achieving its goals?

Varying degrees of progress have been made on the 13 long-term goals but no milestones were defined.

I served on the first review Panel in 2001. I believed then and now that the goals were challenging for the new Program. In addition, the Sumatra event requires a re-evaluation as to whether these goals are now the appropriate for the expanded Program. NOAA must now set realistic expectations based on a pilot project involving 5 states and formulate a set of revised goals that take into account lessons learned from the Sumatran and other recent tsunamis.

4. What are the potential benefits and pitfalls of the program expansion?

The Program expansion to 29 states, territories, and commonwealths provides the partnership

with a voting majority in the House and the Senate. This voting block can assure that tsunami risk and recovery activities remain a funding priority. Program expansion will reduce duplicative efforts and could lead to better product sharing among members. However, this will require cooperation and commitment among the state members. State members will have to address traditional differences to focus on developing useable products, plans, education programs, warning and response policies, and others. State members must recognize that their voting authority is advisory and that the ultimate decision making responsibility lies with NOAA.

5. Have the NTHMP really developed products that are actually creating a foundation for change and preparedness in the community?

Under NOAA's leadership, the NTHMP has developed products that have not only reduced the tsunami risk to the 5 original state partners, but others as well. In California, the evacuation maps are now being used to select evacuation routes and site tsunami evacuation signs. This will lead to improved citizen awareness and institutionalize the need for tsunami responsiveness, which has been severely lacking in California.

To be more efficient and reduce duplication, I believe NOAA should be more proactive and demonstrate even greater leadership in guiding the development of products developed by the state partners. In fact, NOAA may want to establish a funding structure where one state is assigned to develop specific products and innovations that can be used by all the partner states. This structure could help to standardize how the U.S. applies its tsunami risk reduction policies. As an example, I saw excellent education and outreach products developed by the State of Washington and Puerto Rico that, with very minor modifications, could be used immediately in California. Duplication must be eliminated as it is not cost or performance-effective.

6. Please list any suggestions that could be beneficial to the management and outcomes of this program.

I believe that a modification of the TsunamiReady program could have a significant impact on tsunami risk reduction efforts throughout the U.S. Currently, only 40 communities have been designated as TsunamiReady. My understanding is that some form of FEMA flood insurance incentive is granted to communities that are TsunamiReady. This does not appear to be a major incentive for local governments to take action. I suggest that NOAA request FEMA to extend a local match reduction to TsunamiReady communities that apply for pre and post disaster FEMA Hazard Grant Mitigation Program funds and Public Assistance funds. These programs require a local match of 25% and 10%, respectively. Even if this were to apply to tsunami damage only, it would certainly motivate more local governments to take action now.

The expansion to 29 partners requires an evaluation of the subcommittees. How effective have they been and how must they be modified to address the expansion of the program? I believe that the subcommittees should be instrumental in helping develop the standardized and useable products and innovations that I mentioned previously.

This program can assist the state partners in passing legislation that will guide in developing their own specific tsunami hazard preparation activities. I have attached a copy of California's Assembly Bill 319 as an example of how partnerships among state and local governments can work together to help achieve the objectives set forth in the Act.

Summary Comments

I have had the privilege to observe how tsunami risk reduction and education programs have expanded over the last 16 years. Progress has been remarkable. Passage of the Act represents a unique mechanism to develop a tsunami program that could be a national model used by other countries. Governments must work together to reduce the risk from all the other natural hazards that take a terrible toll on life, property, and economies every year. NOAA must do all it can to seize this rare opportunity and demonstrate that cooperative partnerships are truly the best way to protect the world's citizens from natural hazards.

I thank NOAA for the opportunity to serve on this important panel.

Sincerely,

Richard J. McCarthy
Executive Director

Attachments (1)