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April 7, 2008

Dr. Mark Myers, Director
U.S. Geological Survey
12201 Sunrise Valley Drive, Mail Stop 100
Reston, VA 20192

Dear Director Myers:

On behalf of the members of the Scientific Earthquake Studies Advisory Committee (SESAC), I present the committee's sixth annual report on the U.S. Geological Survey (USGS) Earthquake Hazards Program for transmission to Congress, the Department of the Interior, and USGS's federal partner agencies in the National Earthquake Hazards Reduction Program (NEHRP).

The committee met twice in 2007, hearing presentations from USGS staff, partners and stakeholders. As stated in our report, the USGS Earthquake Hazards Program faces challenges and opportunities that are almost unprecedented over its 30-year duration. Meeting these challenges, and capitalizing on these opportunities, should be the highest priorities for the Earthquake Hazards Program. The SESAC has four primary recommendations:

1. As stated in past Committee reports, the SESAC strongly recommends that full funding of the ANSS at the level authorized in the current NEHRP legislation be appropriated. The USGS must make a commitment to work through the Department of the Interior and the Office of Management and Budget to ensure that this objective is met.
2. The SESAC endorses the decision by the USGS to proceed with a multi-hazard demonstration project in Southern California first funded by Congress in FY 2007 and recommends that these efforts will be both strengthened and sustained. The SESAC encourages the demonstration project to expand the multi-hazard scope to include other high-risk areas as part of this effort.
3. It is imperative for the USGS to develop a comprehensive monitoring, analysis and research program to study the significance of episodic tremor and slip events -- one of the most exciting geophysical discoveries since the plate tectonics revolution. It is especially

important to better understand the significance of this phenomenon with respect to changes of earthquake probability.

4. The ability of the USGS to meet a number of critical mission components is seriously threatened by the steady decrease in the number of research scientists actively engaged in the Earthquake Hazards Program. Hence, through hiring and direct support, it is essential for the USGS to be able to fulfill its mission for providing critical earth science research within NEHRP.

Although the attached report covers the committee's activities in 2007, developments in the new year underscore the challenges faced by the program, in particular the February release of the President's budget for fiscal year 2009. The budget eliminates the current year's increases for the multi-hazards initiative and Global Seismographic Network. It cuts deeply into the program's support for external research.

This committee has consistently emphasized the importance of maintaining and enhancing the external component of the earthquake program. The committee's 2006 annual report noted that: "The EHP benefits from a well-established peer-reviewed extramural grants program, which closes the gap between basic research and applications, and provides a steady supply of highly trained individuals ready to work in government, in academia, and in the private sector." The 2005 report stated: "Many of the advances in earthquake hazard assessments, monitoring, and notification now put into practice were made possible by research supported through the National Earthquake Hazard Reduction Program... It is imperative the program receives funding to continue to support and coordinate internal and external research." Likewise, the current and previous report both emphasize the value of the multi-hazard demonstration project and call for expansion, not contraction, of this important initiative.

As you prepare your budget for fiscal year 2010, the committee hopes that you will shift from your present course and focus on building this tremendously important program. The USGS has a great opportunity to seize.

Best regards,

A handwritten signature in black ink, appearing to read 'M. D. Zoback', with a stylized flourish at the end.

Mark D. Zoback
Benjamin M. Page Professor of Earth Sciences

cc: Scientific Earthquake Studies Advisory Committee members
Peter Lyttle, Acting Associate Director for Geology
Linda Gundersen, Chief Scientist for Geology
David Applegate, USGS Earthquake Hazards Program