

WSSPC Awards in Excellence 1996

Award Category: Mitigation

Program Name: Earthquake Hazard Mapping Program in SW British Columbia

Administering Agency: British Columbia Geological Survey

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How long has this program been operational? 2 Years

What are the major purposes of the program? What problem(s) or issue(s) was it designed to address?

The Earthquake Hazard Mapping project is a 4-year project to map potential earthquake hazards in the main urban and adjoining areas in southwest British Columbia. The purpose of earthquake hazard maps is to show areas of potential soil liquefaction, amplification and/or landslide hazards and thus display the relative potential for ground disturbance due to variations in local geologic soil conditions. They are intended to provide basic data for emergency response, land use and community planning, setting realistic insurance rates and prioritizing seismic retrofitting of public facilities.

Describe the specific activities and operations of the program.

Earthquake hazard mapping in B.C. is currently being conducted by the British Columbia Geological Survey. Operating funds are from the provincial Resource Inventory Committee, Emergency Preparedness Canada and municipal governments. To date, the program has included the following components: a review of state-of-the-art hazard mapping methods, a conference for land use and emergency planners, a pilot earthquake hazards mapping project, and a new earthquake hazard mapping program in the Capital Region.

Does this program take a new and creative approach or method?

The program has incorporated several new approaches including the use of new Geographic Information System technology and the development three-dimensional geological models rather than two dimensional models as has often been used in earthquake hazard mapping program in the past.

Program's start-up costs: \$31,000

Source(s): Resource Inventory Committee and the Ministry of Energy and Mines

Program's annual operating costs: \$90,000

Source(s): Resource Inventory Committee, the Ministry of Energy and Mines, Municipal governments and the Joint Emergency Preparedness Program.

Number of full-time equivalent employees working with this program? 1.5

Did this program originate in your state? Yes

Are you aware of similar programs in other states? Yes

Has this program been fully implemented? Yes –

New mapping areas are proposed for 1996-97.

Has the program been effective in achieving its stated purpose(s)?

A good measure of the effectiveness of this program is provided by number of letters from reviewers and clients. Another measure is the completion of several published papers and hazards maps. The effectiveness of the public education and awareness components of the program can be measured by the nearly unanimous, positive response of participants at the earthquake hazard conference and by numerous invitations for presentations by public agencies, planning organizations and scientific associations.

How has the program changed since its inception? What limitations or obstacles might other states expect to encounter if they attempt to adopt this program?

The program has changed from mainly an information gathering and dissemination program to a mapping program. Obstacles will include difficulties in educating public officials in the reality of earthquake hazards and the need for mitigation programs.