

possibility of unpredictable seismic activity in the United States.

What we do know, though, is that the loss of life and property from earthquakes can be considerable. For example, the January 17, 1994, earthquake at Northridge, CA, was classified as only "moderate" in magnitude. Nonetheless, 57 people died, and injuries totaled over 6,500. In addition, insurance payments for this moderate event were over \$6 billion, and the Federal supplemental appropriation totaled another \$9 billion. The Northridge has become the second most expensive natural disaster in American history, exceeded only by Hurricane Andrew. Reducing damage from earthquakes would not only save lives but also save both private insurers and the Federal Government considerable amounts of money.

That is what NEHRP, National Earthquake Hazards Reduction Program, established by the Earthquake Hazards Reduction Act of 1977, is designed to do. It is a Federal inter-agency program designed to help minimize the loss of life and property caused by earthquakes. It supports scientific research on the origins of earthquakes, and funds engineering research to make buildings and other structures more seismically resistant. NEHRP also disseminates this technical information to the states, and helps states and localities prepare for earthquakes. NEHRP focuses on helping states prepare for earthquakes, in contrast to Federal disaster response programs that help states after a major event.

The Northridge earthquake illustrates both NEHRP's accomplishments and what some observers believe are continuing problems.

The most important accomplishment was the survival of most of the buildings and highway overpasses which were built to meet new seismic codes or retrofitted to meet those codes. For example, highway bridges designed using standards developed after the late 1970s performed very well. The most dramatic story concerns the retrofit of older highway overpasses. After the Loma Prieta earthquake in Northern California in 1989, university researchers and Federal engineers, using NEHRP funds, undertook a crash program to develop new ways to retrofit older highway bridges and began applying those retrofit techniques to overpasses in Southern California. At Northridge, six major highway bridges collapsed. While further study is needed, it appears that the older overpasses that were retrofitted survived, while those that did not often failed.

Northridge also illustrated some continuing problems such as the strength of "lifelines"—water line, natural gas pipelines, electrical lines, and so forth. Little research has been done to date on how to make these facilities more earthquake-resistant. Dramatic film from Northridge showed flooded streets with shooting jets of burning natural gas and illustrated how easily these lines are broken.

Mr. President, S. 910 will authorize the funding needed to continue the good work that has been done by the four participating agencies in NEHRP—the Federal Emergency Management Agency, the U.S. Geological Survey, the National Science Foundation, and the National Institute of Standards and Technology—and will allow them to address problems like ruptured lifelines that continue to plague disaster response teams.

This bill also will require new assessments of our seismic hazard warning systems, and our earthquake emergency training facilities to ensure that the warning systems and training facilities are up to date, properly operating, and responsive. In assessing the current conditions of the seismic monitoring networks, the agencies are expected to pay greater attention to understudied areas like the eastern seaboard where catastrophic seismic events have occurred in the past, and are predicted to occur in the future—yet are more difficult to understand.

This is a good bill. I commend the Senator from Tennessee for his diligence in this area, and I encourage my colleagues to support passage of this measure today.

AMENDMENT NO. 1054

(Purpose: To increase the authorization for the United States Geological Survey for 1998 and 1999.)

Mr. WARNER. Mr. President, Senator FRIST has an amendment to the desk, and I ask for its consideration.

The PRESIDING OFFICER. The clerk will report.

The legislative clerk read as follows:

The Senator from Virginia [Mr. WARNER], for Mr. FRIST, proposes an amendment numbered 1054.

Mr. WARNER. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

On page 9, line 19, strike "\$51,142,000" and insert "\$52,565,000".

On page 9, line 22, strike "\$52,676,000" and insert "\$54,052,000".

Mr. WARNER. Mr. President, I ask unanimous consent that the amendment be agreed to.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment (No. 1054) was agreed to.

Mr. WARNER. Mr. President, I ask unanimous consent that the bill be considered read a third time and passed, as amended, the motion to reconsider be laid upon the table, and that any statements relating to the bill appear at the appropriate place in the RECORD.

The PRESIDING OFFICER. Without objection, it is so ordered.

The bill (S. 910), as amended, was deemed read the third time and passed.

(The text of S. 910, as passed, will be printed in a future edition of the RECORD.)

CONVEYANCE OF BLM LAND TO GRANTS PASS, OR

Mr. WARNER. Mr. President, I ask unanimous consent that the Senate now proceed to the consideration of Calendar No. 135, H.R. 1198.

The PRESIDING OFFICER. The clerk will report.

The legislative clerk read as follows:

A bill (H.R. 1198) to direct the Secretary of the Interior to convey certain land to the City of Grants Pass, Oregon.

The PRESIDING OFFICER. Is there objection to the immediate consideration of the bill?

There being no objection, the Senate proceeded to consider the bill.

Mr. WARNER. Mr. President, I ask unanimous consent that the bill be considered read a third time and passed, the motion to reconsider be laid upon the table, and that any statements relating to the bill appear at the appropriate place in the RECORD.

The PRESIDING OFFICER. Without objection, it is so ordered.

The bill (H.R. 1198) was deemed read the third time and passed.

WARNER CANYON SKI HILL LAND EXCHANGE ACT OF 1997

Mr. WARNER. Mr. President, I ask unanimous consent that the Senate now proceed to the consideration of Calendar No. 136, H.R. 1944.

The PRESIDING OFFICER. The clerk will report.

The legislative clerk read as follows:

A bill (H.R. 1944) to provide for a land exchange involving the Warner Canyon Ski Area and other land in the State of Oregon.

The PRESIDING OFFICER. Is there objection to the immediate consideration of the bill?

There being no objection, the Senate proceeded to consider the bill.

Mr. WYDEN. Mr. President, I urge the Senate to pass the bill H.R. 1944, authorizing an exchange of lands between the U.S. Forest Service, the U.S. Fish and Wildlife Service, and Lake County, OR.

My colleague from Oregon, Senator SMITH, joined me in introducing S. 881 on June 11. The chairman of the Energy and Natural Resources Committee, Senator MURKOWSKI, was extremely helpful and the bill was included in a hearing on various land exchange bills on June 18th. The U.S. House passed the companion measure, sponsored by the chairman of the House Agriculture Committee, Congressman SMITH, on July 22. The Energy Committee reported the House bill yesterday, and I greatly appreciate the Chairman's excellent work to bring the bill to floor for final passage today.

This legislation will go far to keep the Warner Canyon Ski Area of Lakeview, OR, in business. If ever there was such a thing as a community ski area, this is it. It is low tech. It is run by a non-profit local organization. This legislation is clearly in the public interest of Lakeview, OR, and the Nation.