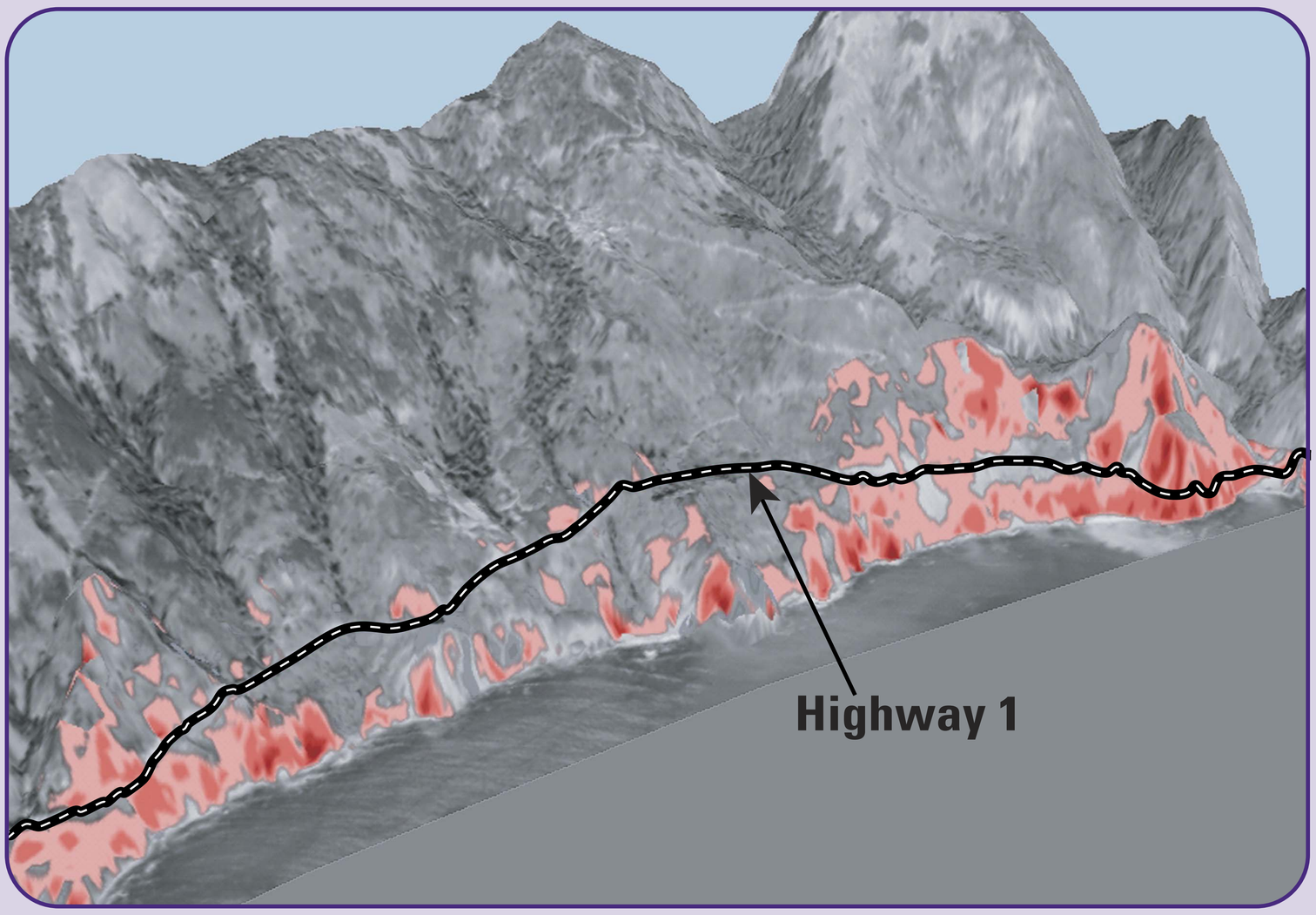
USGS
science for a changing world

Big Sur Coastal Landslides

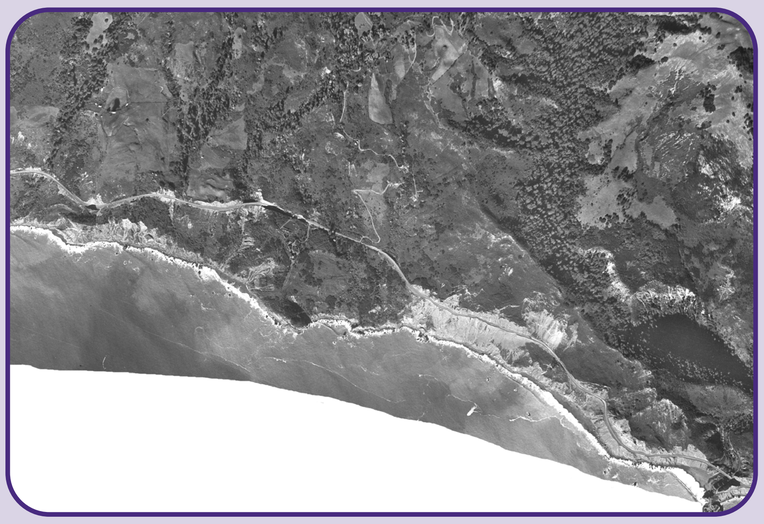
2000 – 2003

The USGS studied air photos of the Big Sur coast taken in 1942 and 1994, in cooperation with the California Department of Transportation (Caltrans) and the University of California at Santa Cruz (UCSC).

We used the photographs to create 3D computer models. By comparing the two models, we can see the differences caused by landslides over 52 years. Using these differences, we could identify hazardous coastal areas and measure the amount of landslide sediments that go into the ocean.



3D model of Lopez Point showing landslide areas in red



Lopez Point, Big Sur 1942

Lopez Point, Big Sur 1994

The results of this study helped Caltrans and the Monterey Bay National Marine Sanctuary develop a plan to maintain scenic Highway 1 while protecting the marine sanctuary.

Location of photos

Coastal Landslides Study Participants

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Processing and analyzing the digital files

More information on the web: http://walrus.wr.usgs.gov/posters