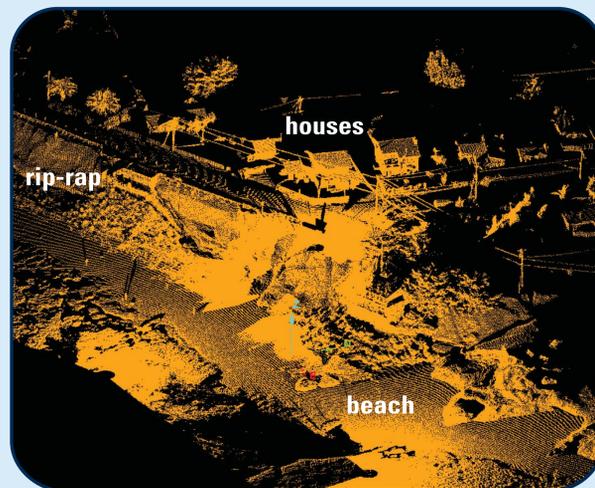


Does Pleasure Point Need a Seawall?

2005 – 2007

The USGS, in cooperation with Santa Cruz County and the California Department of Boating and Waterways, studied the seacliffs, ocean floor, and waves of Pleasure Point, California.

We created detailed maps of the seacliffs and ocean floor using LIDAR laser scanners and sonar. We measured wave action using digital photos and videos, a wave gauge, and a current meter. We collected over 42 million map points, 40,000 wave images, and 8,900 wave measurements.



LIDAR image of seacliff



10 minute average breaker zone

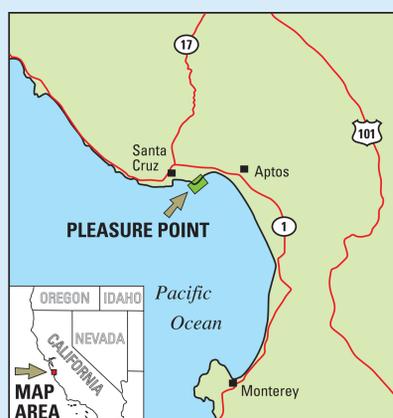


Current meter



Brian Collins and Sam Johnson with ground-based LIDAR

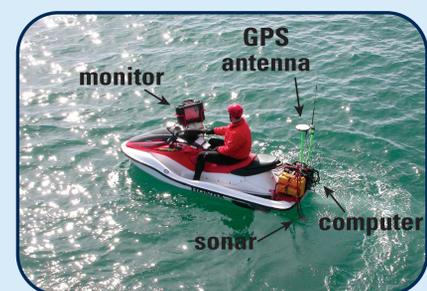
Santa Cruz County will use our data to help answer the question: Will a seawall protect roads and homes without harming this famous surfing spot?



Location of Pleasure Point

Pleasure Point Project Team

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Patrick Barnard collecting sonar data

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