

STATE BOLSTERS TSUNAMI WARNINGS



Signs warn motorists near the Santa Cruz Harbor they are entering a tsunami hazard zone.

DAN COYRO — SANTA CRUZ SENTINEL

Santa Cruz one of five coastal communities to see updated 'playbooks'

By Jason Hoppin

jhoppin@santacruzsentinel.com
@scnewsdude on Twitter

SANTA CRUZ » Until 2011, local tsunami warnings were one of Santa Cruz' favorite things to ignore.

That changed when a surge of energy traveling across the Pacific Ocean from the 9.0-magnitude Japanese Tohoku earthquake crashed into the Santa Cruz Small Craft Harbor, causing millions in damage.

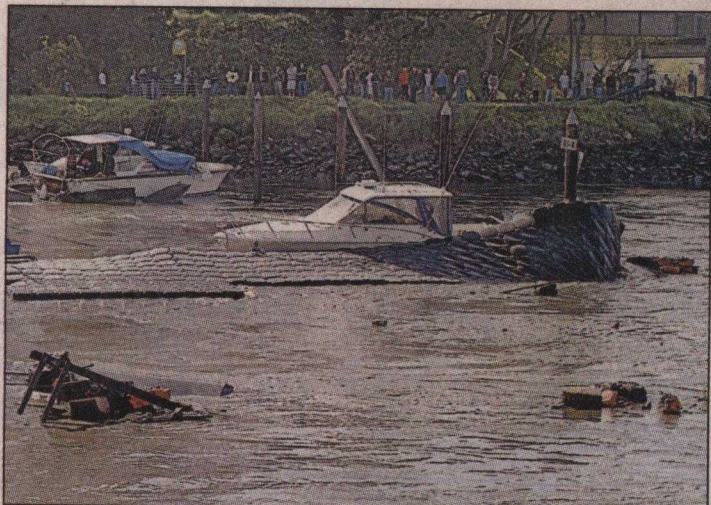
Recovery still isn't complete, with work underway on the last of 23 docks be-

ing replaced.

To commemorate Tsunami Preparedness Week, the California Geological Survey has released new maps — called "playbooks" — to help five coastal communities prepare for tsunamis, including Santa Cruz. The playbooks use updated information to help local communities brace for waves and potential flooding based on the size of a tsunami.

"We're worried about people underestimating tsunamis in the future," said Rick Wilson, a senior engi-

TSUNAMI » PAGE 4



DAN COYRO — SANTA CRUZ SENTINEL FILE

A crowd gathers along the east side of the Santa Cruz Harbor during the 2011 tsunami to watch debris rush past pilings that used to hold U dock.

WEDNESDAY, MARCH 26, 2014

Tsunami

FROM PAGE 1

Geological Survey. "Not all tsunamis are the same size. They need to listen to their emergency managers and act accordingly."

Wilson said the state's information on tsunamis is limited, and the 2011 events that severely damaged harbors here and in Crescent City added to scientific understanding of tsunamis.

YouTube.com was also a big help, with videos posted on the Internet helping to fill in details on how tsunamis work.

"We used a lot of the video that was collected during that time to kind of validate the modeling that we do," Wilson said. "Although we didn't like the fact that there were a lot of people down by the water in 2011, they did capture about 100 videos, so we're making

benefit of those."

Port Director Lisa Ekers said about \$19 million in work has been completed on rehabilitating the harbor, of just more than \$20 million expected. Twenty-three of 30 docks are being replaced.

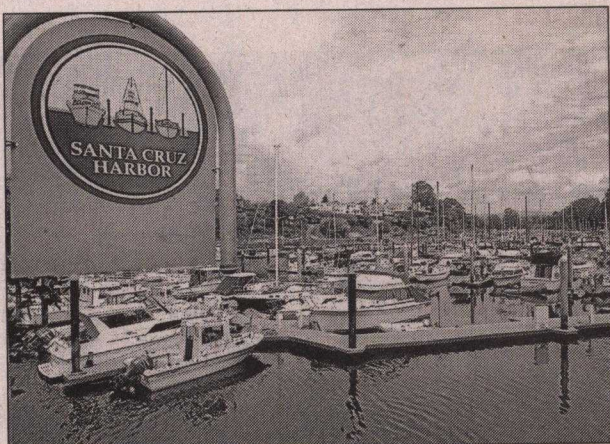
Damage in the long, narrow harbor was largely contained to boats and docks, with "U" dock seeing the most spectacular damage.

However, most of the docks being replaced are in the southern part of the harbor.

Ekers said the state's playbook can augment the harbor's disaster preparations, with the primary objective being to secure the safety of people, property and rescue equipment.

"In our case, we have some fairly recent experience. What their analysis did was confirm what we knew empirically," Ekers said.

"There some very valu-



DAN COYRO — SANTA CRUZ SENTINEL

Santa Cruz Harbor's entire U dock was destroyed in the tsunami and had to be rebuilt.

able information there that will certainly supplement port district operations in a disaster."

Both Wilson and Ekers reiterated that as bad as the 2011 tsunami was, it could have been worse.

It occurred at low tide, but if it had occurred at high tide the tsunami likely

would have pushed water into low-lying areas.

Eventually, the state hopes to improve tsunami mitigation plans for the entire coast.

Until then, playbooks here and in San Diego, Long Beach, Crescent City and Ventura have also been completed.