

Soggy ground gives way, more slides possible

Mike Lee, San Diego Union-Tribune, 12-30-10

San Diego County soils are sagging under the weight of the second big storm to hit the region in the past week.

The one-two punch created lots of minor miseries such as roadside mudslides and fallen trees. It also posed more serious challenges for a few unlucky residents whose homes were threatened by chunks of terra firma that shifted in Encinitas, the College Area and La Jolla.

Geologists said the worst could be yet to come, as unusually large amounts of rain water penetrate the ground and create the potential for much larger slides than the surface slippages reported this week.

“The problems may crop up weeks or months (later), after the water has had a chance to seep down through the bedrock and get down deeper into these potential failure planes,” said Mike Hart, a private geological consultant in Scripps Ranch.

Hart said he’s fielded a handful of calls from concerned homeowners in the past few days after they watched slices of their landscaping slip away. He said even relatively shallow, or “skin,” failures can damage homes and threaten lives if people are caught by surprise.

“They have so much weight behind them they can tear right through a house,” Hart said.

Southern California is considered one of the nation’s most hazardous landslide regions because of its steep terrain, earthquakes, fractured bedrock and wildfires that denude the landscape and increase the chance for debris flows.

“These things happen in other places, but because California is so developed in these steep places, it is a hazard that affects people,” said Dennis Staley with the U.S. Geological Survey in Denver.

Occasionally heavy rains increase the threats by adding weight to the soil — water weighs 62.4 pounds per cubic foot — and weakening the clay particles.

At some point, the saturated ground gives way.

“Gravity is trying to pull it downhill. Gravity never quits,” said Pat Abbott, an emeritus professor of geology at San Diego State University.

He said the county’s inherently unstable geology has been made more dangerous by development, particularly the addition of irrigation water.

“The whole baseline has changed because of people with their lawns and sprinklers,” Abbott said. “Pre-wetted ground saturates very, very quickly and tends to push things more toward failure.”

Abbott said several cities and neighborhoods around the region have proven slide-prone in wet weather, including parts of Oceanside, Rancho Bernardo, Santee and Tierrasanta. He’s particularly concerned about the north and northwest slopes of Mount Soledad in La Jolla, which are steep and don’t get as much sun to dry out the land as the southern face.

A small mudslide last week in La Jolla left one home shuttered and filled the yard of a second residence in an area where mudflows led to a legal dispute with the city of San Diego in 2007.

City officials said the most recent slide occurred Dec. 22, when runoff from heavy rains poured over a slope and a damaged retaining wall at a home on Caminito Avola, a private road in an area known as Colony Hill. Muddy water then flowed into a ravine and the backyard of a nearby residence.

No one was hurt, but a city engineer issued one home a “yellow tag” to restrict residency.

In the College Area of San Diego, a Mesquite Road residence appeared stable on Wednesday after part of its backyard and a retaining wall slipped down a rain-soaked, steep canyon slope toward Montezuma Road last week.

The owner, who wouldn't give her name, said everything seemed fine Wednesday, but “of course I'm nervous.”

She said a city geologist came with the fire department on Tuesday to assess the risk to her home from water drainage across her property. Officials did not believe the woman needed to evacuate the house.

“I don't think we'll have any other problem with the land,” she said. “We checked this morning and no more land came down.”

Lifeguards in Encinitas continued monitoring a bluff that collapsed beneath two homes along the 1500 block of Neptune Avenue. On Wednesday, the hillside appeared to be holding, although police reported several small slides nearby in an area known as Beacon's Beach.

“The property line is so close, if anything happens to their property, it will affect ours,” said a neighbor, who did not want her name published. “The landlady said we're built on a solid foundation, but seeing that (landslide), it's very unnerving.”

Residents along the ocean side of Neptune Avenue have long been concerned over bluff failures and they banded together about three years ago to pursue modern seawalls and prevent the kind of erosion seen in the past few days. They are working with Encinitas officials in the regulatory process that involves approval from the California Coastal Commission.