

'Blob' still hangs high on mountain



One of the major concerns about the future of the slide area is the lack of vegetation in the path which can cause further instability.

Megan Cole photo

Instability remains a concern at Johnsons Landing

Geo-tech crews heading to slide site next week

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Nelson Star Reporter

Geo-technical experts are preparing to return to Johnsons Landing next week to conduct an assessment that residents and agencies involved feel is vital to moving forward in the community.

Even though it has been several weeks since the slide, geomorphologist Peter Jordan who has been working at Johnsons Landing since the landslide in July, said there is still instability at the landslide and debris field.

"There is still a steep exposed bank at the head of the slide which could stay in place for many years or move a lot sooner depending

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on weather and ground conditions in the next few months and years," Jordan told the *Star* in an email. "An absolute prediction of the timing of any more sloughing and sliding is very difficult to state, but the fact is there will be some more movements albeit not necessarily in the same way it did in July. More likely, movement would occur in the form of smaller slumps and rotational slides at the head and upper sidewalls of the slide area."

While the experts are continuing to research at Johnsons Landing, Jordan said evidence has emerged about what may have contributed to the slide.

"In general terms, the Johnsons Landing slide was caused by high groundwater pressures in steep slopes arising from record rainfall in June 2012 and following a high snowpack," he said.

"The snow had recently melted and was still in the ground seeping down the mountain slopes when the rainfall was occurring. There is no immediately obvious trigger, as the site was hidden in steep terrain with dense forest."

Retired terrain stability specialist Bill Wells said the new terrain caused by the landslide could continue to cause risks for the community.

Wells — who lives in Kaslo

and is a former Johnsons Landing resident — said that based on experience the new landscape creates increased runoff, potentially leading to further instability.

"As you can see in all the photographs and video there is a whole new land surface and there is no vegetation at all on it," he said. "Vegetation plays a big role on detaining terrain and roots systems do a good job of holding slopes. There are lots of examples where lack of vegetation causes much more rapid runoff and this sort of thing."

Wells referred to the way Hurricane Isaac has affected the island of Hispaniola where the Dominican Republic and Haiti are located.

Because of the 2010 earthquake, much of the vegetation in Haiti was damaged if not eliminated.

The Dominican Republic still has much of its vegetation and the terrain was able to hold more of the rain that fell, limiting the impacts of flooding and landslides.

Haiti has been affected by serious flooding and on Wednesday the death toll was estimated at 24.

"There is a brand new landscape so I think there are already plans being formulated and initiatives considered to do some replanting of vegeta-

tion at Johnsons Landing," said Wells.

"They have to find out how individual landowners are going to coordinate that. And they will need some money because it will be expensive."

Wells had been involved in terrain mapping of the area around Johnsons Landing 30 years ago, but said there was no evidence at the time that the terrain would "fail."

"In terms of the particulars of Johnsons Landing, 30 years ago we did a map of the terrain in that area but we weren't particularly looking for hazards," he said.

"That area that failed, I think we had accurately mapped as a place with springs and moisture there, and it could fail. That was 30 years ago, but the findings were new at that point. We didn't have any particular reason to feel that people shouldn't build in Johnsons Landing."

Like Jordan, Wells and other residents of the community have concerns about the "blob" that remains on the mountain-side.

"The experience that I have is what everyone else has, there is still this big blob hanging on the head wall and it would be nice if that dissolves and comes down bit by bit, but it's still there and it's going to come down one way or another," he said.