

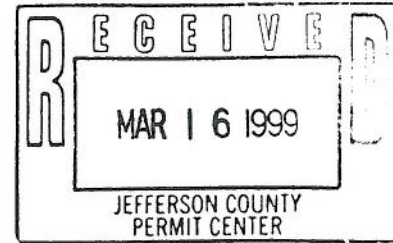
BUILDING DEPT.
MIKE AJAX
JEFFERSON COUNTY F.Y.I.
DEPARTMENT OF PUBLIC WORKS AUBREY

P.O. Box 2070
1322 Washington St.
Port Townsend, WA 98368
(360) 385-9160

Frank Gifford, Public Works Director/County Engineer

MEMORANDUM

Date: 03/15/99
From: Monte Reinders *MR*
To: Frank G.
Bruce L.
Aubrey P.



Subject: Thorndyke Road Slide, M.P. 3.5

I was able to take a look at this slide area on Friday (in conjunction with some other field work I had going at the time). I'm sure you are all aware of the scale of this slide and the futility of trying to do anything to stop it. However, I'll throw in my 2 cents worth. The slide is massive, and although I did not have time to take any specific measurements, I would guess it affects an area 0.3 to 0.5 miles wide parallel to Thorndyke road. The highest visible scarp passes through a road cut slope and follows the top of this slope for some distance. It is apparent that the bench above the road which extends for some distance behind the current crack represents downsetting from previous and/or ancient landsliding even more extensive than we are currently experiencing. The hummocky nature of the topography below the road is evidence of previous and/or ancient landsliding as well. Many trees below the road have trunks which are curved in several locations suggesting that sliding occurs periodically over this portion of the landscape and is not limited just to ancient events and the current movement. However, the record-setting rains this season may have driven the slide deeper and consequently over a larger area than normal which would explain why we have not seen movement as high as road before. The soils visible at the surface both above and below the road consist of sand representative of glacial recessional outwash material. However, a blue-gray clay crops out at the beach where it has "popped up" an estimated 3 feet due to current movement. This may represent the toe of the slide although it is possible that other toe ruptures are present below sea level. The slide is a result of a deep-seated failure in the clay as a result of an increase in the ground water levels and quantities due to heavy rainfall this season. This slide will continue to creep and the road will continue to settle slowly until groundwater levels (technically speaking - "porewater pressures") can subside. This may take several months. I would not expect the rate of settlement to increase dramatically unless we receive unusually heavy rains this spring. There is nothing which can feasibly be done to correct this condition.

The property(s) affected by this slide are not and never will be suitable for development. There is no feasible mitigating scheme which can possibly ensure that movement will not occur in the future on these properties. The Public Works department should be proactive and work with our Planning department or other appropriate agencies to make sure that development is not allowed at this location. I would be happy to take the lead on this if you so desire. A buyout of the land for conservation purposes by public or private groups may be appropriate use for this property and compensate current owners. It is possible that the existing house below Thorndyke road is riding on the slide. I did not investigate this although it was obvious that the driveway to this house has been damaged.