Landslip at Ravenwood, Launceston area

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A landslip has caused damage to a sewerage main about ½ mile north of Hoblers Bridge and the St Leonard's Council requested an examination of the area to determine whether further movement is likely to occur and what measures could be taken to stabilise the area.

GEOLOGY

The slip has developed in an area of Tertiary sediments situated between a north-west trending ridge of Jurassic dolerite and the flood plain along the North Esk River. The top of the Tertiary material has a flat area developed on it which is probably a terrace associated with the North Esk River as there are some rounded quartzite boulders underlying it, together with dolerite boulders. The probable terrace is about 100 ft above the flood plain. Areas of the bauxite crop out on the slope up to this flat area north of the slip. The bauxite surface is sloping and disappears into the Tertiary sediments but this could also be a sloping erosion surface.

UNSTABLE AREA

The slip has developed near the top of the slope (about 14°) up to the terrace and has affected about one acre of land down to the flood plain. The sewerage pipe runs along the toe area of the slip just above the flood plain. There has been a slump of about 3 ft around the heel of the slip and a bulging out of material in the toe area which has affected the pipe line. An old slip can be seen on this slope to the south of the present slip.

The only economic remedial measures that can be suggested is to prevent water entering the slip area and any that does should be conducted away quickly. This could be achieved by installing drains around the heel of the slip and down the slope through the the slip. These measures would not prevent sub-surface water entering the slip area and it is still possible that the movement would continue even if this draining is undertaken.

It seems advisable therefore, that in order to prevent any further possible damage to the sewerage line when it is repaired, that it be moved out on to the flood plain area where, if further movement does occur, the slip material will not reach the line. There are indications of old movements along the face of the hill south of the recent slip. It is suggested that the pipeline be moved west along the flood plain between the two E-W running fences, on either side of the recent slip. A distance of 30-50 ft away from the foot of the slope should be a safe distance.

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