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Proposed reservoir site, Huon District Hospital, Franklin

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It is proposed to erect a small concrete water storage reservoir on the hill behind the proposed Huon District Hospital at Franklin. In connection with this project an enquiry has been received regarding the stability of the proposed reservoir site and the area was examined on 2 August 1963.

The site of the proposed hospital is about $\frac{1}{4}$ mile north of the centre of the township of Franklin and bordering the highway. From the highway the country rises gently for about 10 chains to the foot of an old river terrace. This terrace then rises quite steeply to another fairly flat bench which lies in front of the main hills further west. Along the foot of this terrace, about 5 chains from the reservoir site, is a small landslip. The slip is clearly related to the steeper slopes around the edge of the old river terrace. No other evidence of earth movements were detected in the immediate vicinity. The slip is a small rotational shear failure less than one chain across, the toe of which has been partially contained by trees but the most northern portion of it has extended a few yards downslope as an earth flow. There is no obvious reason why the slip should have occurred at this point rather than any other point along the base of the river terrace.

The site of the proposed reservoir is about 5 chains from the foot of the terrace and is on gently sloping ground. It is considered that the risk of landslips in the vicinity of the reservoir site is slight and that the proposal is sound from a geological point of view. Since the area is underlain by clays some attention should be given to drainage in the vicinity of the proposed reservoir. The following drainage systems are recommended.

1. A cut-off drain upslope of the reservoir site to intercept water from higher up the hill.
2. Spoon drains around the toe of the excavations.
3. A system of agricultural drains laid in crushed stone or gravel under the base of the reservoir.

Conclusion

The construction of a reservoir at the site selected does not present any undue hazards from a geological point of view. The side slopes are gentle and the loadings envisaged are quite small. Further slips could occur along the foot of the river terrace about 5 chains upslope but there is no reason to expect that they would be extensive enough to endanger the site of the proposed reservoir. Adequate drainage as outlined is desirable in the vicinity of the reservoir.

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