New Priority Classification System for Soil Cut Slopes (Special Project Report SPR 6/95)

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Abstract

This report describes the new priority classification system that has been formulated for soil cut slopes. The system is a risk-based tool for assessing the relative priority for follow-up action, with due regard to both the probability of failure and consequence with respect to potential loss of life in the event of a failure.

In the course of formulating the new system, the existing Ranking System and the Stage 1 Priority Classification System have been examined. Problematic aspects with respect to present practices and requirements are identified. The time and resources constraints associated with the 5-year Accelerated LPM Programme are explained and the need for a new system in the light of these constraints is emphasized.

In the new priority classification system, consideration is given to slope geometry, signs of distress, evidence of past instability, potential for water ingress, nature of slope-forming material, engineering judgement made during the Stage 1 Study, type and proximity of the toe and crest facilities, upslope and downslope topography and the likely scale of failure. Calibration work has been carried out to confirm that the scores adopted in the system adequately reflect the importance of the various attributes.