

The Deployment and Risks Associated with Different Types and Combinations of Earth Moving Equipment in the Restoration of Functional Soil Profiles: An updating of the UK Guidance¹

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Abstract: Practical guidance for the handling soils by different earth-moving machines was published by the UK's Ministry of Agriculture, Fisheries and Food in 2000. The guidance comprised detailed recipes for achieving the best and consistent outcomes for three types/combinations of equipment used for the stripping, storage and replacement of soils. It was in a form which could be understood and used by professionals and machine operators alike, and has been widely used across the minerals industry for almost twenty years. During this time there has been significant changes in the preference for the type of earth moving equipment used by the minerals industry and general acceptance that certain combinations are preferable for certain land uses and quality than others. In recognition of the positive contribution the guidance has made to the sustainable working of minerals, the industry through its professional body, the Institute of Quarrying, and Natural England, the agency acting for the UK Government's Department of the Environment, Framing and Rural Affairs on land use and minerals policy for England and Wales, got together in 2017 to publish an updated version by 2019 which covers the changes in the most commonly used earth moving equipment and advances in site practices.

This paper will examine aspects of the contextual deployment of current combinations of earth moving machines in mine site development and closure in relation to planning policy, and the inherent risks and limitations on the practices available for the restoration of land use and quality.

Additional Key Words: excavator, bulldozer, dump-truck.

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