Please see Annex RN7 for supporting information, and the “Introduction” for Health and Safety considerations and advice on the use of the guidance.

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1. **Are the requirements for haul roads appropriate to the restoration proposals**
   The number, siting and length of haul roads required will depend upon:
   a. the location of the soil stores/areas being stripped of soil and the land being restored
   b. areas of unworked or restored land which must not be trafficked by plant or machinery
   c. the need for new access to parts of the site as restoration progresses
   d. the type of machinery to be used and the method of its use

2. **How are the haul roads to be constructed, maintained and restored**
   Plant and machinery must not be allowed to run on the soil layers or on soil-forming materials. Do the proposals for forming, maintaining and restoring haul roads adequately cover:
   a. stripping of soil layers
   b. drainage and maintenance
   c. dust control
   d. decompaction and restoration of the soil profile

3. **How are the haul roads to be marked on site**
   Haul roads should be marked on site and provisions made to prevent plant and machinery straying onto unworked or restored land. Have the operators considered and made provisions for:
   a. marking the layout and location of haul roads on plans in the site office
   b. marking haul roads on site
   c. preventing plant and machinery from straying off the haul roads

4. **Is there a requirement for access roads post restoration**
   a. for agricultural access and to monitor and maintain wellheads etc
For more detailed information see:

- [Good Practice Guide for Handling Soils](#) (MAFF April 2000)
- The Reclamation of Mineral Workings to Agriculture (DoE 1996)
- Guidance on Good Practice for the Reclamation of Mineral Workings to Agriculture (DoE 1996)

Cross references:

- AP 7, 8, 9, 10
- SW 6, 9
- RN 4, 5, 6, 8
- AC 3, 10
1. Are the requirements for haul roads appropriate to the restoration proposals

Haul roads should accord with the agreed scheme for restoration and their setting out and construction planned well in advance. The siting of haul roads should be well thought-out, thus reducing the likelihood of changes being required which may impact upon restoration and aftercare. Any changes should be agreed in writing with the MPA. The number, siting and length of haul roads will depend upon:

a. the location of the soil stores/areas being stripped of soil and the land being restored
Haul roads are required for hauling soil from soil stores/areas being stripped to the land being restored. Where landfilling is taking place, haul roads are required for transporting waste to the void and between the stores of daily cover and the area being landfilled. It is important that plant and machinery are able to move around the site in an efficient and structured way and the layout of haul roads will, to some extent, be a compromise between taking the shortest route and not having more haul roads than necessary. Soil stripping and restoration may require temporary haul roads between the soil stores and phases being restored, whether using dumptrucks or motor-scrapers.

b. areas of unworked or restored land which must not be trafficked by plant or machinery
The location of haul roads should minimise the interference with agricultural access to both unworked and restored land, with the progressive restoration and aftercare of the site, and prevent plant and machinery taking unauthorised short-cuts.

c. the need for new access to parts of the site as restoration progresses
The siting of haul roads may continue to change as restoration progresses. Temporary haul roads will be required between the different areas being stripped of soil and being restored. These must also be clearly marked, and measures taken to prevent plant and machinery straying onto adjacent land or taking unauthorised short-cuts.

d. the type of machinery to be used and the method of its use
The type of machinery to be used and the method of its use will also determine the layout of haul roads. For example, with loose-tipped restorations, dumptrucks delivering soil will travel on the overburden to the strip being restored and therefore their passage across the overburden may not be critical, unless it is to be decompacted before the soil is spread. Where motor-scrapers are used, this will require the machines to run on previously placed soil before discharging their loads and normally in the same wheelings as the previous machine. This method requires discipline to adhere to the haul roads which will be moved as restoration progresses across the area (Guidance on Good Practice for the Reclamation of Mineral Workings to Agriculture (DoE 1996) Annex pages 24-26 and Appendix 3 and the Good Practice Guide for Handling Soils (MAFF April 2000)).
2. How are the haul roads to be constructed, maintained and restored

Plant and machinery must not be allowed to run on soil layers or on soil-forming materials. The proposals should ensure that:

a. **stripping of soil layers**
   Haul roads will be stripped of soil down to the mineral or overburden and the soil put into store for subsequent restoration.

b. **drainage and maintenance**
   Maintenance and drainage of the haul road surface is important to reduce the temptation for plant and machinery to divert off the road onto adjoining land, which can be a problem with poorly maintained and drained haul roads. Drainage is likely to be achieved by constructing and maintaining the surface of the haul roads at an appropriate camber to shed water to roadside ditches, French drains or soakaways.

c. **dust control**
   Dust control may be necessary during dry periods to prevent contamination of nearby crops. This is particularly important for horticultural crops and fruit, which may be eaten unwashed, and for grass which may become unpalatable to livestock.

d. **decompaction and restoration of the soil profile**
   Restoration of haul roads is likely to include the removal of any sub-base/wearing course, subsoiling to relieve compaction, and reinstating the original soil profile.

3. How are the haul roads to be marked on site

Operators should address the following matters:

a. **marking the layout and location of haul roads on plans in the site office**
   Haul roads must be shown on the site plans to enable them to be accurately set out and constructed on the ground.

b. **marking haul roads on site**
   Once constructed, their boundaries should be marked to reduce the chances of plant and machinery straying off them.

c. **preventing plant and machinery from straying off the haul roads**
   Haul road boundaries should be formed/marked in such a way that plant and machinery cannot easily widen them or take short-cuts across corners etc. This may be particularly important when sub-contractors are employed to strip or restore soil.
4. Is there a requirement for access roads post restoration

a. for agricultural access and to monitor and maintain wellheads etc

Where agricultural access is required to enclosures post restoration, and access for monitoring and maintenance of wellheads etc. for many years, it may be possible to construct permanent roads that will serve both during the restoration and aftercare periods and for the long-term management of the land. This may enable better standards of road to be built, in the knowledge of the long-term need, and for time and money to be saved when compared to constructing and maintaining more temporary roads. The siting and layout of roads would need to be considered at the planning stage to minimise the interference with the after-use.