

Condition 46

Condition 46 Soil Handling

No development shall commence until details of soil handling, soil storage and machine movements and the end use of soils have been submitted to and approved in writing by the Waste Planning Authority. The development shall be carried out in accordance with the details approved.

Reason: To minimise structural damage and compaction of the soil and ensure sustainable use of surplus soils and to aid in the restoration and planting of the site and to comply with MLP policies S1, S10 and DM1 and WLP policies W3A and W10E.

Changes to the Site Setting Associated with Quarrying Operations

On the 9 February 2012 planning permission (ESS/32/11/BTE) was granted to Blackwater Aggregates for:

Extraction of an estimated reserve of 900,000 tonnes of sand and gravel and retention of existing access onto the A120, private haul road, sand and gravel processing plant, ready mixed concrete plant, bagging plant, dry silo mortar plant and water management system, internal haul roads and recontouring of existing extraction area (known as Site R in Minerals Local Plan) with restoration to a combination of agriculture, woodland, nature conservation, water lagoons and to levels appropriate to safeguard implementation of planning permission ESS/37/08/BTE (Integrated Waste Management Facility).

Closure of Condition 46: Soil Handling and Soil Movement

Topsoil and subsoil across the majority of the IWMF site was stripped as part of the Site A2 quarrying operations (Refer to Drawings 5.1 and 5.2 from the original IWMF Land Use Assessment and 5.4 and 5.5 of the Site A2 Land Use Assessment). The subsoil and topsoil across the former agricultural fields has been excavated, relocated and placed into perimeter screening bunds outside the IWMF area. The stockpiling and placement of the subsoil and topsoil was carried out in a planned and systematic manner, and the height and general arrangement of the screening bunds limited to mitigate the potential for anaerobic conditions arising.

Subsoil and topsoil currently stockpiled within the Site A2 screening bunds required within the restoration of the IWMF site will be excavated, relocated and placed from the existing stockpiles and placed within the works.

In line with existing operational best practices, the criteria for moving topsoil and subsoil (either from within the TPO Woodland and/or from the existing topsoil and subsoil stockpiles within Site A2) will be based on the measurement of the Lower Plastic Limit in accordance, unless otherwise agreed with ECC.

Determination of the conditions on site which are suitable for soil handling will be in accordance with "The Guidance" (Department of the Environment guidelines entitled "Guidance on Good Practice for the Reclamation of Mineral Workings to Agriculture" HMSO 1996). A copy of this document will be held in at all times in the IWMF site office.

In the specific context of the IWMF, it is of particular note that the site is in the driest part of the UK, in which case it is likely that the soil handling season, determined by the rainfall and soil moisture content, will be longer than for most other parts of the country.

Sustainability for soil movement will be determined by season or rainfall, and reference to estimates of soil plasticity or moisture content. There are a number of methods explained in the Guidance which, for the IWMF,

are prioritised below. The elements of each method can be combined and are not necessarily exclusive. Generally, the soil consistency method will be used to determine when soils are unsuitable for handling, and the rainfall criteria used as an additional guide to control soil handling operations once stripping starts.

Seasonal Considerations

As a general principle, soil movement will take place only during those months when the soils are likely to be in a relatively dry condition. This will usually mean between the months of April to September inclusive, and GFC will plan operations so that soil movement is normally scheduled for these months. In practice, the period of soil movement in and around the IWMF site may be extended during years with lower than average rainfall. Conversely, the period for stripping may be shorter in years with higher than average rainfall.

Rainfall Criteria

Soil stripping, excavation and placement operations will cease during certain rain conditions. Less than 5 mm over 12 hours is unlikely to have much effect on soil conditions or strength. Amounts of >5 mm will have an effect on soil strength if the soils are moist (as in usually the case in spring and autumn) but not if they are dry (as in the case in summer months). The guidelines to be followed, when soil stripping should be stopped due to rain are as follows:

Rainfall Criteria Requiring Delay of Soil Stripping, Excavation and Placement Operations

All months excluding June to September	June to September
If Rain >5 mm in last 12 hours – delay stripping until next day	If Rain >10 mm in last 12 hours – delay stripping for 6 hours

As a general rule, soil stripping, excavation and placement may be suspended if rain starts during operations. However, there is the need for some flexibility as steady rain on a dry soil is likely to have less immediate effect on soil strength and plasticity than light rain on a very moist soil. The guidelines to be followed are as follows:

Rainfall Criteria Requiring Stopping of Soil Stripping, Excavation and Placement Operations

Heavy Rain (as from intense showers, slow moving depressions etc.):	Stop stripping immediately
Normal Rain:	- Stop stripping if rain has not stopped in 15 minutes
Very Light Rain or drizzle:	- Stripping can proceed for up to 4 hours unless soils are close to plastic limit

Excavation and Clearance of the Existing Woodland

Site preparation, site clearance and excavation works within the existing woodland footprint shall comprise the following:

- i. Establish the 'Tree Protection Fencing' in and around the site, in advance of any earthworks and site clearance operations. The line and general arrangement of the 'Tree Protection Fencing' shall be will be in accordance with Condition 50.

- ii. Removal of trees and vegetation will take place in a planned and systematic manner. Tree trunks and large logs should be retained and relocated/stored on site for future use as biodiverse habitat creation, or relocation as standing dead wood. It is important to note that an Ecological Clerk of Works will oversee the general site clearance works. Tree stumps and routes shall be pulled and/or removed in advance of any topsoil removal.
- iii. Topsoil within the woodland footprint shall be removed under an Archaeological Watching Brief under Condition 10 and relocated to Wayfarers Field. The woodland topsoil shall be placed across Wayfarers Field. The removal and placement of topsoil shall comply with the requirements of Planning Condition 47 and carried out as outlined above.
- iv. Following sign off and clearance from the Archaeological Clerk of Works the subsoil shall be excavated and relocated to an agreed stockpile location within or directly adjacent to the 'Construction Site' [south western boundary] or placed within the existing quarry subsoil stockpile(s) within Site A2 – this will assure that the subsoil is reused and relocated to support the IWMF's restoration and/or wider quarry restoration schemes (and neither lost nor wasted).
- v. The location and position of all former WWII infrastructure within the woodland shall be surveyed and recorded for archaeological purposes.
- vi. All concrete bases, access roads, infrastructure and drainage systems shall be excavated and relocated to an agreed location within the IWMF Construction Site for crushing, screening, recycling and reuse as a secondary aggregate within the main IWMF Construction Works i.e. soil nail retaining wall facing, sub-base for access roads etc.