

CEMEX: BUGHFIELD LANDFILL: 12/01430/FUL dated 3 April 2013

**LANDSCAPING AND ECOLOGICAL MANAGEMENT SCHEME IN SUPPORT OF
S73 APPLICATION FOR VARIATION OF CONDITIONS 2 AND 4 OF 12/01430/FUL
FOR THE DEVELOPMENT OF A LEACHATE TREATMENT PLANT,
BURGHFIELD LANDFILL, ISLAND ROAD, READING.**

1.0 GROUNDWORKS AND PREPARATION OF LANDSCAPING AREAS

- 1.1 Where available, stripped soils and soil forming materials from beneath the proposed concrete slab foundation will be placed to create the northern landscaped mound (to a height of 1.5m maximum above original ground levels) and where required to the hedgerow and meadow areas to the following depths:

HABITAT TYPE	Topsoil Depth Range	Subsoil Depth Range
• Lowland Meadow - Grassed Areas	150mm to 300mm	450mm max
• Native Broadleaved Woodland (plantation areas P1A and P1B) and Hedgerows (H1)	450-600mm	150-400mm

NB: Plantations P1C, P2 and P3 planted into existing soil formation.

- 1.2 Soils will be handled as set out in Sheets 1-4 inclusive of the MAFF Good Practice Guide for Handling Soils (April 2000) (<http://www.maff.gov.uk/envirom/landuse/soilguid/index.htm>). Objects greater than 150mm in any direction brought to the surface by this cultivation will be removed from the soiled area.
- 1.3 Any movements across the soil will be kept to a minimum. Soils will only be handled when they are dry and friable, usually between April and September, and when ground conditions permit. Operations will be suspended during or after heavy rain.
- 1.4 Soils will only be handled when in a dry and friable condition. The criteria for determining dry and friable shall be based on a field assessment of the soils wetness in relation to its Lower Plastic Limit. An assessment shall be made by attempting to roll a ball of soil into a thread on the surface of a clean plain glazed tile (or plate glass square) using light pressure from the flat of the hand. If a long thread of less than 3mm diameter can be formed, the soil is wetter than the lower plastic limit and soil moving should not take place until the soils have dried out. If the soil crumbles before a long thread of 3mm diameter can be formed, then the soil is dry enough to move. This assessment shall be carried out on representative samples of each major soil type.
- 1.5 In addition ground conditions should be such that significant damage is not caused to the ground surface.
- 1.6 Following completion of planting and seeding works, the Company will inform the Planning Authority of the completion of the restoration which shall mark the commencement of the five year aftercare period.

2.0 LANDSCAPING PROPOSALS

Planting

- 2.1 The restoration tree and shrub planting will be carried out in the first planting season (November to March) following final placement of soils and reinstatement.
- 2.2 Trees and shrubs at 0.45-0.6m bare root stock will be notch planted; the larger feathered stock 0.9-1.2m will be pit planted, with 300mm diameter, 300mm deep holes backfilled 1 part peat free tree planting compost, 4 parts soil.
- 2.3 Plans L4/369/45B and L4/369/46 show the location, extent, species mixes, spacings and numbers of woodland and hedgerow planting proposed. The species selected are locally occurring native broadleaved species typical of the surrounding *Lower River With Open Water C1 Lower Kennet* Landscape Character Area.
- 2.4 The predominant species within the plantation areas are Willows, which will support a wide range of invertebrate and bird species; within the hedgerows, the main species is Hawthorn, with an assemblage of other native shrub species, with Oak and Willow as the proposed hedgerow trees.
- 2.5 All planting material will be grown to and handled in accordance with the appropriate British Standard and using the guidelines given in the document 'Handling and Establishing Landscape Plants'. Plant stock of native origin and of local provenance is to be used as preference.
- 2.6 Each woodland planting station will be cleared of weeds before planting. This may involve the application of herbicide and the physical clearing of thicker vegetation around them.
- 2.7 Plant stock of British grown native origin will be used.
- 2.8 The planting will be protected by 1.2m "Tubex" tree shelters and will be protected from browsing livestock by a stock proof fence as specified on plan L/FE/1.

Grassland

- 2.9 The grass seed mix will be Emorsgate EM3 to replicate a traditional hay meadow mix to NVC MG5. This mix has the benefit of containing a diverse range of grasses and wildflowers suited to sites where the soils are likely to be variable.
- 2.10 All grass will be sown as soon as possible after placement and cultivation of soils, and preceding tree and shrub planting. The optimum months for sowing grass seed are April or September to October. The local weather forecast is monitored within these periods to sow during the optimum time, avoiding frosts or prolonged hot dry spells. Seeding will take place during suitable conditions (i.e. mild and damp weather when the ground is at most moist but not wet or waterlogged) and the area rolled to ensure good ground-to-seed contact.
- 2.11 Seed mixes will sown at a rate of 5g per square metre. Where slope gradients permit, this will be by lightweight machinery. The remainder will be sown by hand.
- 2.12 The rate of seeding will be light to allow for natural colonisation of the species rich grassland.
- 2.13 Should there be a delay in seeding, any emergent noxious weeds will be sprayed off with Glyphosate a minimum of two weeks before seeding is to be undertaken.
- 2.14 The emergent grass sward will be mown or strimmed initially to a cutting height of 50mm to promote tillering of the grasses. This will in turn both stabilise the soil surface and restrict opportunities for weed species to invade the sward. During the first year of establishment for all grassland areas, the sward will subsequently be mown to a height of 50mm once in April/May and again in August/September, unless growth rates or climatic conditions indicate otherwise. The arisings will be removed from site.

3.0 AFTERCARE OF THE HABITATS

GRASS SEEDED AREAS – (Lowland Meadow)

- The sward will be managed by cutting to a height of 75-100mm in late summer outside of the bird nesting season. The crop will be removed after 1-5 days to allow dispersal of seed. Alternatively, grassland could be left uncut 1 year out of 2 along the margins of the plantation and hedgerow areas to encourage invertebrates.
- At all times during the programme good horticultural practice will be used to contain noxious weed growth across the entire restored site and the appropriate herbicide will, if required, be applied according to manufacturers recommendations. The nutrient status will be monitored. Details of field operations such as herbicide spraying will be submitted as part of the annual aftercare report.
- The performance of the sward will be monitored throughout the five-year aftercare period and any necessary modifications to the management regime required to suit the site will be agreed with the Planning Authority.

TREE AND SHRUB PLANTING AREAS - (Native Broadleaved Woodland):

- The planted tree and shrub groups will be left to develop into blocks of shrub thickets with selected standards, however, whilst they become established, tall herbage will be prevented from developing around them by spot treatment with an appropriate herbicide and/or cutting.
- These planting areas will be fenced with stock-proof fencing to prevent grazing.
- Within the fenced off areas, the unplanted areas to be managed as tall grassland will be strimmed down to a height of 50mm in late September.
- During the winter of Year 5 of the aftercare, thinning, and possibly some coppicing of tree and shrub species will be carried out in order to allow the full development of major trees as well as creating good layer and age structures with the planting areas.
- At the end of the five year aftercare period, or before, should the tree or shrub growth warrant it, the shelters will be removed from the planting areas.

NATIVE HEDGEROW

- The new hedgerow planting will have a 1.0m wide weed free area along the length of the hedge maintained for the first 2 years after planting. Thereafter, other plant species will be allowed to colonise the hedge bottom area.
- Plants dying during the five-year aftercare period will be replaced to maintain a minimum 95% stocking rate. Any plants loosened by frost or wind will be firmed up and any damaged branches on establishing tree and shrub planting will be removed using a sharp pruning knife.
- The hedgerow will be fenced on its outer eastern side with stock-proof fencing to prevent grazing.
- Formative pruning will be undertaken, at the appropriate stage of development (timed for the month of February and likely to be from year 4 onwards when the plants should have reached 1.5m+ height) to ensure a good 'A-shaped' hedge form develops, whilst allowing shrubs to hold their berries through the winter period.
- Clipping will otherwise be undertaken on a 2 year basis as a principle of long term management. Alternate sides of hedgerow will be trimmed in rotation so that there will be some variety of differing profiles within the hedgerow so as to increase its wildlife value.
- At the end of the aftercare period, or before, should the tree or shrub growth warrant it, the shelters will be removed from the hedgerow.