CEMEX UK Operations Ltd

LANDSCAPING, RESTORATION AND OUTLINE FIVE-YEAR AFTERCARE SCHEME

For

Hamble Airfield Quarry Proposal, Hampshire

Originated: March 2022
Revision A: September 2022

Contents:

1.0 INTRODUCTION:

PLANNING, RESTORATION PRINCIPLES AND SEQUENCE OF RESTORATION

1.1 Planning permission is being sought for sand and gravel extraction on at Hamble Airfield, Hampshire.

1.2 Conditions attached to any forthcoming permission will include those relating to landscaping, restoration and aftercare.

1.3 The restoration scheme has been designed with the threefold objectives of:

(i) Re-establishing land uses including grazing land which are appropriate to the locality;

(ii) Creating new features of nature conservation and biodiversity value, in furtherance of the objectives of the UK and CEMEX's own Biodiversity Action Plans;

(iii) enhancing the recreational and amenity value this with additional permissive footpath provision.

1.4 These objectives will be achieved establishing three broad land uses within the restored site, namely:

(i) Reinstatement of agricultural land at original ground levels (with final levels as shown on the submitted restoration plan, where gradients are no more than 7°) to be managed for low intensity grazing land, with new hedgerows and permissive footpaths to be established at the northern and eastern peripheral areas; and

(ii) Creating new vegetation features within the site – new woodland and scrub blocks, and hedgerows across the site, which would enhance the new permissive paths, and provide a reinforced link between established peripheral hedgerows and tree belts; and

(iii) Establishing and retaining a diverse wetland habitat around the margins of the restored wetland features.

1.5 These proposals are illustrated on the submitted restoration plan ref no. 21-08-HAMB-1717-P1-RES Rev A. The key habitat creation objectives for the restored site are set out in the table on this plan.

1.6 The restoration scheme has sought to strike a balance between landscape enhancement, and the opportunities for habitat creation, which are not always entirely compatible. Nevertheless, the restoration scheme is considered to provide an appropriate mix of after-uses which combined have the potential to become a valuable asset to the locality.

1.7 In summary, the key nature conservation features on site, as existing and as proposed will be as follows:

(i) Acid / Neutral Grassland

(ii) Hedgerows

(iii) Lake and Ponds: open water and aquatic margins / reedbed (features also included for surface water drainage

(iv) Lowland Mixed Deciduous Woodland and Scrub

1.8 The restoration landform for the site as set out on the submitted plans (or as subsequently approved) has been especially designed to reinstate a substantial area of grazing land with restored soil profiles and depths to retain the agricultural capability, as set out in Chapter 14 of the ES accompanying the planning application, and to create a significant area of woodland and scrub to enhance the site's recreational and amenity value and to meet Local, National and Company BAP priorities for biodiversity conservation.

1.9 To achieve optimum levels of self-sustainability it is intended the habitat creation will therefore involve an element of natural colonisation from local sources.

1.10 The submitted restoration plan also shows the proposed restoration planting mixes for the new hedgerows and woodlands, as well as the seed mix for reinstated grassland areas.

1.11 Where possible, existing landscape and ecological features will be retained to maximise the biodiversity value of the site and for rapid integration of the restored site into its surroundings.

1.12 The submitted working scheme shows the sequence and phasing of reclamation. The proposed replaced depths of the restoration materials are based on the soils assessment for the site, and will be as follows:

Area	Overall Soil profile	Depth Topsoil	Depth Subsoil	Overburden or subsoil forming materials formation
Grazing Land and Hedgerows	1.2m	300mm min	900mm	To depth
Tree and shrub planting areas (Lowland Mixed Deciduous Woodland and Scrub)	1.0m min	300mm to 400mm max	200mm to 450mm max	To achieve full depth of 1.0m
Wetland Areas including Margins	1.0m min	0-300mm minimum	200mm to 1000mm max;	To achieve full depth of 1.0m

2.0 SUBMITTED PLANS

Drawing Number	Scale	Title
21-08-HAMB-1717-P1-LAND	1:2,500 at A1	Landscape Layout Plan (Operational Phase)
21-08-HAMB-1717-P1-RES	1:2,500 at A1	Final Restoration – November 2021

NB: the above plans may be subsequently amended or updated with the approval of the Mineral Planning Authority.

3.0 SOIL STORAGE MOUNDS, MOVEMENTS AND HANDLING

3.1 Soils will be handled as set out in Sheets A-D inclusive of the Institute of Quarrying (2021) Good Practice Guide for Handling Soil in Mineral Working.

3.2 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 in accordance with details set out in Chapter 14 (Soils) of the ES, and in accordance

with the Institute of Quarrying (2021) Good Practice Guide for Handling Soil in Mineral Working.

3.5 No soil handling will take place between the months of October to March inclusive, unless conditions are suitable and unless agreed with the Mineral Planning Authority. In addition, ground conditions should be such that significant damage is not caused to the ground surface.

3.6 Topsoils will be stored in mounds not exceeding 3.0m in height and subsoils and subsoil substitutes will be stored in mounds not exceeding 5.0 metres in height. The general locations of all soil storage screen mounds are shown on the submitted Method of Working plans.

3.7 Topsoil and subsoils will be stored separately. Materials shall be stored like upon like i.e. topsoil shall be stripped from beneath subsoil bunds, and subsoil from beneath overburden bunds. Where continuous bunds area used, dissimilar soils will be separated by a third material such as geotextile layer or straw.

3.8 All soil bunds to be placed in accordance with the Tree Protection Plans to protect rootzones and to allow for maintenance access.

3.9 A low maintenance wildflower grassland mix such as Hubbards LG5 for Acid Soils, farmland bird seed mix such as WBA 2 Autumn Sown Bumblebird Mixture or WBS 2 Spring Sown Wild Bird Seed Mixture (both from DLF) will be sown as soon as possible after creation of any soil storage mounds which are intended to remain in situ for more than 6 months or over the winter period. The optimum months for sowing grass seed are April or September to October.

3.10 Both farmland bird and nectar mixes can remain in situ for 2 years and the sward will remain uncut to provide maximum benefit for farmland birds. It is anticipated that the periphery bunds will be utilised for restoration at completion of site operations and that these would be seeded with the permanent acid grassland mix; for any other temporary soil storage areas the farmland bird or nectar mix may be used.

3.11 At all times during the site working and restoration programme good agricultural practice will be used to contain invasive noxious weed growth and the appropriate herbicide will, if required, be applied in accordance with manufacturers' recommendations.

3.12 Any areas of failed sward on the soil storage areas will be cultivated and reseeded with the appropriate mix in the next seeding season

3.13 Soils will be replaced to achieve, as near as possible, the levels shown on the restoration plan 21-08-HAMB-1717-P1-RES or as amended). Objects greater than 100mm in any direction brought to the surface by this cultivation will be removed from the soiled area.

3.14 A full soil resource assessment has been undertaken and is included in Chapter 14 of the ES; this demonstrates that sufficient topsoil and subsoil resource should be available for a full restoration profile. For grassland areas, subsoils or indigenous subsoil forming materials will be spread to a maximum settled depth of 900mm. Topsoil will be spread to a minimum even settled depth of 300mm and disc harrowed upon replacement. For other areas, the soil depths will be as set out at paragraph 1.12. Any movements across the soil will be kept to a minimum.

3.15 An annual soil audit will be undertaken during the operational life of the site.

4.0 AFTERCARE PROGRAMME AND SITE RECORDS

4.1 An annual site meeting between CEMEX UK Operations Ltd, any Tenant of the restored land, and the Mineral Planning Authority will be held in April of each year of the aftercare period, or at a time to be agreed. The performance of the previous year's aftercare will be reviewed, and the detailed programme will be agreed for the following year.

4.2 Detailed site records of the aftercare programme will be kept and made available to the Mineral Planning Authority two months in advance of the annual aftercare site meeting. The annual submission will be based upon the Annual aftercare table set out in Appendix 1.

4.3 CEMEX UK Operations Ltd will be responsible for implementing the restoration and aftercare scheme and a representative of the Company will be available to discuss details at aftercare site meetings.

4.4 Any amendments to the aftercare steps or timing set out in this document will be agreed in writing between the applicants and the Mineral Planning Authority.

4.5 Assuming soil placement, seeding and planting operations are completed in the first phase of working by 30 September 2025, the expected programme of aftercare for the first restored areas is expected to run as follows:

Year of Aftercare:	Dates:	Annual Report to be submitted by:	Annual Aftercare Meeting to be held by
YEAR 1	1 October 2025 – 30 September 2026	28 February 2026	30 April 2026
YEAR 2	1 October 2026 – 30 September 2027	29 February 2027	30 April 2027
YEAR 3	1 October 2027 – 30 September 2028	28 February 2028	30 April 2028
YEAR 4	1 October 2028 – 30 September 2029	28 February 2029	30 April 2029
YEAR 5	1 October 2029 – 30 September 2030	28 February 2030	30 April 2030
NB: YEAR 5 - Completion	1 October 2030 Potential Date of Release 1 January 2031	Completion Report summarising the aftercare programme for the final months of the aftercare plan, and detailing activities carried out from 28 February 2030 to 30 September 2030 and final status of the site to be submitted by 1 November 2030	

4.6 The five-year programme for subsequent restored phases will be for the annual timescales as set out above. Restoration phasing will follow the approved phasing plan.

5.0 CULTIVATION AND SEEDING

5.1 Following soil placement, soil samples will be taken so that appropriate soil ameliorants can be identified and applied as necessary. Advice on soil analysis and soil nutrient levels will be undertaken by a FACTS qualified adviser with specific experience of nature conservation requirements.

5.2 The cultivations carried out for the initial grassland cover will be only those which are necessary to produce a suitable seed bed, given the soil conditions prevailing at the time. Care will be taken not to over-cultivate. It is thought likely that, following the loose placement of the topsoil, the only subsequent cultivations necessary will be simply harrowing and rolling.

5.3 However, if required the soils will be subsoiled to a minimum depth of 350mm with a tine spacing of 600mm and cultivated by power harrowing to produce a suitable seedbed. Any object greater than 100mm in any direction brought to the surface by these operations will be removed from the site.

5.4 An acid grassland mix will be sown, as soon as possible after placement of the soils, to begin improving the soil structure. The optimum months for sowing grass seed are April or September/October. Should there be a delay in seeding restored soils, any excessive emergent weed growth will be sprayed off with Glyphosate a minimum of two weeks before seeding is to be undertaken or will be cultivated back into the soil profile prior to seeding.

5.5 If green hay is to be used from a suitable donor area within the site, then this will be spread across the reinstated soils in late summer. Should ground conditions preclude the sowing the sward will be sown in the following spring.

5.6 Any areas of failed grass will be cultivated and reseeded in the next seeding season.

5.7 In January or February of each year of the aftercare programme, soil samples will be taken from the top 150mm of the soil profile and analysed to determine the nutrient status. Any soil ameliorant required will be applied in the correct quantities upon the results of this analysis during March.

5.8 Details of the management regime for each year of the five-year aftercare programme will be agreed in advance during the annual April aftercare meeting between the Company, the Tenant, and the MPA.

5.9 At all times during the programme good horticultural practice will be used to contain excessive noxious weed growth (Japanese knotweed, ragwort, dock and thistle) and the appropriate herbicide will, if required, be applied as weed wipes or spot spray in accordance with manufacturers' recommendations – refer to Section 10. The nutrient status will be monitored, and appropriate ameliorants applied to ensure successful vegetation establishment.

5.10 Details of soil nutrient status and soil ameliorant applications programme, together with details of other field operations such as noxious weed herbicide spraying will be submitted as part of the annual aftercare report.

5.11 The use of pesticides on site will only be considered as a last resort; in that eventuality, advice will be sought from a BASIS qualified adviser.

6.0 SECONDARY TREATMENTS AND LAND DRAINAGE

6.1 The restored soils will be nursed and carefully managed at all times through this programme and performance of these soils carefully monitored. This monitoring should show a consistent improvement in soil structure.

6.2 The need for secondary treatments such as subsoiling will be kept under review during the aftercare period.

7.0 ACID GRASSLAND AREAS

7.1 The emergent grass sward will be mown initially to a cutting height of 75mm to promote tillering of the grasses. The sward will subsequently be mown to a height of 100mm once in April/May, and again in August/September to promote establishment, unless growth rates or climatic conditions indicate otherwise.

7.2 If the sward growth is very dense the cuttings will be removed to maintain low fertility. However, if growth is sparse the cuttings will be left.

7.3 In years two, three, four and five, within the amenity grassland area in the north-eastern part of the site, the general mowing regime will be a late summer (late July or August) cut to a height of 75-100mm.

7.4 Again, if the grass growth is very dense the cuttings will be removed but if growth is sparse the cuttings will be left.

7.5 Alternatively, if a suitable grazier can be found, the grassland areas within the central and southern parts of the restored site will be grazed from Year 3 of the aftercare onwards. Lightweight stock will be selected for grazing and these will be removed from the site during the months of January, February, March, November and December if ground conditions become wet to avoid poaching of the restored soils.

7.6 A water supply will be made available to livestock drinking troughs in each restored field area. Stock welfare will be the responsibility of the grazier and will be checked at regular intervals

7.7 The performance of the sward will be monitored throughout the five-year aftercare period and any necessary modifications to the mowing regime required to suit the site will be agreed with the Mineral Planning Authority.

8.0 POND AND WETLAND AREAS

8.1 In order to achieve optimum levels of self-sustainability it is intended the habitat creation will therefore involve an element of natural colonisation from local sources. However, for the marginal areas, reed (*Phragmites australis*) and other native species (refer to paragraph 8.6 below) will be planted in the initial stages of the site aftercare period around selected areas of the proposed lake (up to 15% of the length of the lake margins) to reduce the potential for erosion and to accelerate the integration of the restoration into the surrounding area.

8.2 In the late winter or early spring following final restoration soil placement, as water levels are reaching equilibrium, translocated Phragmites reed or Typha bulrush clumps will be set into 500mm deep holes at 1.5m c/s in a single line or reed plug plants will be planted along the waterline limits of the pond areas at around

18.0AOD at 1.5m c/s in a double staggered row 500mm apart straddling the waterline.

8.3 Translocation of Phragmites reed or Typha bulrush (potentially from the silt lagoon areas) will be carried out in late winter (February). Aquatic planting with nursery stock will be carried out in the months of April or May.

8.4 Planting locations will be the most advantageous to rapidly establish the habitat. The planting will comprise:

Species:	Percentage Cover:	Number: ..... Spacing:
Phragmites australis	80	200 .....2.0m c/s
Phalaris arundinacea	19	190 .....1.0m c/s
Sparganium erectum	10	25 .....2.0m c/s
Iris psuedacorus	1	10 .....1.0m c/s

8.5 Marginal vegetation will be managed by seasonal variation of the water levels. This will be achieved by natural fluctuations (evaporation and precipitation).

8.6 Floating and submerged inorganic debris and litter will be cleared, removed from site and disposed of. Litter clearance will be carried out once during the winter months (January to April inclusive and October to December inclusive) and once a month during the summer months as necessary (May to September inclusive).

8.7 Aquatic vegetation clearance, where required, will be carried out in September or October. Cleared vegetation will be left on site adjacent to the waters edge for a minimum of 24 hours before removal from the site.

8.8 Areas of marginal vegetation will be maintained principally by water level fluctuation.

9.0 LANDSCAPING SCHEME: TREE, SHRUB AND HEDGEROW PLANTING

9.1 Tree and shrub species have been carefully selected; restoration planting will comprise native deciduous types found locally within this lowland coastal plain area. All transplant tree and shrub planting will be carried out by notch planting using bare root or cell grown stock.

9.2 The location and details for the restoration planting proposals are shown on plan 21-08-HAMB-1717-P1-RES. The species composition, size, and spacing of the planting are as specified in the schedules. All tree and hedgerow planting will be protected from rodent damage by 1.2m "Tubex" shelters, and where required, post and wire fencing or timber post and rail fencing will be erected to new planting to protect it from field operations and potential grazing damage.

9.3 All restoration planting will be carried out in the first planting season (November to March) following final placement of soils and reinstatement within each phase.

9.4 Where weed growth requires it, and during the first establishment year, all planting will be maintained by the use of chemical spray containing Glyphosate to permit rapid establishment. A 1.0m diameter weed free area will be maintained around each tree and shrub, and a 1.0m wide weed free strip will be maintained along each hedgerow.

9.5 General aftercare objectives will include:

- Maintenance visits to be kept to a minimum;

- Soil analysis to be undertaken where deemed necessary due to performance of restoration planting and seeding;
- No fertiliser or soil ameliorant applications within the acid grassland and wetland areas unless required by results of soil analyses;
- Applications of herbicides or pesticides only to be carried out by prior agreement;
- Where required, post and wire fencing will be erected and maintained to all areas of tree and shrub planting;

9.6 Appendix 2 sets out the annual programme of management.

9.7 Any plants dying during the five-year aftercare period will be replaced with a size and species to be agreed with the Mineral Planning Authority to maintain 100% stocking rate during the aftercare period and to achieve a minimum 100% stocking rate upon final restoration. Replacement planting will be carried out annually during the winter planting season. Any plants loosened by frost or wind will be firmed up and any damaged branches will be removed using a sharp pruning knife.

9.8 At the end of the aftercare period, should the tree growth warrant it, the shelters will be removed from the planting. If tree growth is slow, then shelters will be retained and their removal will be kept under review during the management plan period. All used shelters will be removed from site.

9.9 For restoration plantation areas, the expected average height after 5 years of aftercare will be 3.0m. Planting may require to be thinned to 5.0m c/s at final restoration – where applicable to be included in annual programme to be submitted to the Mineral Planning Authority.

9.10 For hedgerow planting, the expected average height after 5 years of aftercare will be 2.0m. Once shelters are removed hedgerows will be trimmed to a height of not less than 1.5m.

9.11 For established advance planting tree plantations, planting may require to be thinned to 4-6m c/s at final restoration – where applicable to be included in annual programme to be submitted to the Mineral Planning Authority.

9.12 For existing hedgerows, these will be side trimmed biannually, and will be maintained to a height of not less than 2.5m; in addition, selected potential hedgerow standards such as existing oak and ash will be left untrimmed.

9.13 Within the existing woodland perimeter belts, thinning, and possibly some coppicing of tree and shrub species will be introduced in order to allow the full development of major trees as well as creating good layer and age structures with the scrub areas.

9.14 Certain works may have to be carried out as a direct response to issues of public safety (such as a dangerous tree) or management of the boundaries and public rights of way. These may override conservation aims. All work on site needs to ensure the Health and Safety of operatives is taken account of which may impact on methods and costs of work or even prevent some activities taking place.

9.15 Areas of more mature existing plantation may benefit from management. For example, tree planting considered to be mature enough would be thinned (i.e. the removal of nurse species which would allow the long-term species such as Ash and Oak to develop) and any tree protection which is no longer required / is inhibitive to the growth of the trees would be removed.

9.16 The nature and extent of these operations would be determined subject to an appointed Arboriculturalist's recommendations which would be provided prior to any works taking place. These recommendations would include the marking-up of specific trees to be removed for approval by the Local Authority's Tree Officer.

9.17 The removal of any existing trees / vegetation will be carried out in accordance with BS 3998, Appendix A and Health & Safety Executive (HSE) / Arboricultural and Forestry Advisory Group Safety Leaflets.

9.18 Dead trees to remain standing and when fallen, left on site. Dead, dying, or diseased wood (including fungal growths), broken branches and stubs will be removed only where these pose a health and safety issue (where they are in close proximity to the highway, rights of way or private property, gardens or houses) or pose a tree disease risk.

9.19 Some rotational thinning where the trees are accessible may be required to keep some sunny areas benefiting invertebrates. The removal of rubbish will be undertaken, where wind blownwind-blown or accumulated in branch forks.

9.20 Wires, clamps, boards and metal objects, will be removed if possible without causing further damage and not part of a support structure that is to be retained.

10.0 CONTROL OF INVASIVE SPECIES DURING THE LIFE OF THE SITE

10.1 The potential weed population for the site may include species colonising from adjacent areas, and weeds colonising from imported restoration materials. Weed species may be a problem due to their impacts upon habitats and species diversity (eg: Japanese Knotweed, New Zealand Pygmy Weed), or their potential impacts upon livestock (eg: Ragwort), or as identified under the Weeds Act 1959 (Spear and Creeping Thistle, Broaded leaved and Curled Dock and Ragwort), or for Health and Safety (eg: Giant Hogweed).

10.2 The presence of the following species will therefore be monitored on the consented area:

Common Ragwort (Senecio jacobea)

Field or Creeping Thistle (Cirsium arvense) and Spear Thistle (Cirsium vulgare)

Broadleaved Dock (Rumex obtusifolius) and Curled Dock (Rumex crispus)

Japanese Knotweed (Fallopia japonica)

Himalayan Balsam (Impatiens glandulifera)

New Zealand Pygmy Weed (Crassula helmsii)

Giant Hogweed (Heracleum mantegazzainum)

10.3 Prior to the commencement of the development the Company's Restoration Manager will carry out a walk-over of the site to identify any areas of noxious or invasive weeds. Where the development timescale permits, any such weeds will be controlled prior to soil stripping to ensure that such weeds are not spread around the site when the stripped soils are replaced.

10.4 Invasive weeds such as Japanese Knotweed will be subject to a three-year programme of spraying with an appropriate herbicide in accordance with manufacturer's recommendations.

10.5 Extensive areas of the five noxious agricultural weeds identified under the Weeds Act such as spear and field thistle, broad leaved and curled dock and ragwort will be controlled by spot spray applications with Glyphosate where these extensive areas threaten to spread onto neighbouring property.

10.6 Within waterbodies, control of Crassula helmsii, Heracleum mantegazzainum and Impatiens glandulifera will be undertaken within the limitations of using herbicide control near waterbodies in accordance with manufacturer's recommendations.

10.5 Weed control will be carried out at the appropriate time of year and during appropriate weather conditions by suitably qualified personnel.

11.0 LANDSCAPE CONSTRUCTION DETAILS

11.1 The field access gates located around the site will be 3.6m wide five-bar gates as set out on detail L/FE/25. Timber Chicanes to control access on and off site from the footpaths will be constructed as set out on plan L/FE/27

11.2 Fencing within the restored site will be undertaken as set out as specified on plans 21-08-HAMB-1717-P1-LAND and 21-08-HAMB-1717-P1-RES; post and timber rail fencing is detailed on drawing L/FE/21; post and stockproof wire fencing is detailed on drawing L/FE/2.

11.3 Footpaths around the site will either be along the line of existing footpath along the eastern boundary or mown through retained grassland.