**Date:** March 2025

Wrexham County Borough Council
Planning Service
16 Lord Street
Wrexham
LL11 1LG

**RE: Discharge of Conditions 13 and 14 of Planning Permission P/2016/0110 – Periodic review of planning conditions imposed under planning permission code no LLA CB/1997/1013**

**Ballswood Quarry, Gegin Lane, Llay, Wrexham, LL12 0NU**

Dear Sir / Madam,

Following discussion with Charlie Pope of the North Wales Minerals and Waste Planning Services in late 2023, it is understood that there are two remaining Conditions of the Review of Old Minerals Permissions (ROMP) planning permission P/2016/0110 which are yet to be discharged. These are Conditions 13 and 14 relating to the Restoration and Aftercare of the currently operational Ballswood Quarry (Appendix 1). It was agreed that this Discharge of Condition Application be prepared and submitted to Wrexham County Borough Council in order to fully discharge the extant permission for the sites operations.

This document provides a narrative description of the Proposed Concept Restoration Scheme as illustrated on Drawing No. KD.BLWQ.6.D.001A dated May 2024 (Appendix 2). The Drawing has been produced to reflect the projected remaining mineral reserve at Ballswood Quarry along with the potential available soils, overburden, interburden and generated silt available for the restoration of the Site. The scheme illustrated on the drawing demonstrates what could be achievable once mineral extraction has ceased and utilising only restoration materials available onsite, based upon information provided by the operator Cheshire and North Wales Sand and Gravel Ltd.

The scheme has been provided to illustrate a baseline position at Ballswood Quarry should it be worked and restored in accordance with available information provided under Planning Permission Reference P/2016/0110 and Schedule 3 – List of Conditions (Appendix 1).

The working, operations and restoration of the site to be completed no later than 22nd February 2042 (Condition 2).

It should be noted that the mineral deposit at Ballswood Quarry is highly variable. It is a glacial deposit with great changes / variance in the thickness, make up, quality and location of the sand and gravel mineral reserve. There are also large varieties in the sequencing of overburden, interburden and silt generation. As such the Concept Restoration Scheme is a “best estimate” of the resulting restoration scheme.

Over the years mineral extraction has taken place through the Site. After consultation with Wrexham County Borough Council and North Wales Minerals and Waste Planning Services, it is understood by Cheshire & North Wales Sand and Gravel that there is no plan / agreed depth for the limit of mineral extraction. As such, to avoid sterilisation of mineral, the operator will continue to extract no deeper than an elevation of 5mAOD.

Description of the Concept Restoration Scheme

In making the above comments there are eight fundamentals of the Concept Restoration Scheme which can be achieved. These being:

i. The cessation, decommissioning and removal of all quarry and associated plant, machinery and ancillary activities.
ii. The establishment of a steep (~1:2 – 1:3) engineered type batter slope around the western and north western periphery of the Site. This is a result of only utilising onsite restoration materials.
iii. The utilisation and concentration of available soils / soils type material to re-establish agricultural land.
iv. The creation of two separate water bodies with water levels at ~25mAOD. These water bodies will be in continuity with groundwater and are located within the site to establish surface water management internally.
v. Utilising overburden and interburden substrate for both natural regeneration to promote invertebrate presence and for the establishment of species rich grassland.
vi. The re-establishment and strengthening of native boundary and internal hedgerows and broadleaf woodland.
vii. The establishment of the restoration scheme and a 5-Year Aftercare and Management Scheme.
viii. The retention of a section of permissive public rights of way running “off-road” adjacent to Gegin Lane will be permanent.

The exact balance of the above eight items is dependent upon the non-sterilisation of available mineral and the volume of restoration material available. To aid in the establishment of the restoration of the site peripheral batter slopes, both previously placed and in-situ clay / overburden material within the south of the Site and material within the existing vehicle access ramp will be utilised. This will result in the creation of the southern water body. The northern water body will result from the extraction of the mineral ~10 to 20m below the average ground water table of ~25mAOD. Clay / overburden fill from the southern area of the Site and vehicle access ramp will also be placed to create shallows around the periphery of the water bodies, principally for health, safety and engineering purposes. There will be no public access within the restored internal quarry area or its batter slopes. The table below details the complete restoration landuses for Ballswood Quarry, which are illustrated on Drawing No. KD.BLWQ.6.D.001A.

| Landuse | Restoration Areas (Ha) |
|---|---|
| Existing Woodland / Scrubland | 9.18 |
| Existing Agricultural Land | 7.8 |
| Homestead Garage | 1.1 |
| New Native Woodland / Scrubland | 6.27 |
| Proposed Agricultural Land | 9.85 |
| Proposed Species Rich Grassland / Sandy Substrate habitat creation | 9.76 |
| Retained Access Road | 0.13 |
| Land adjacent to Mount Alyn | 0.2 |
| Proposed Wildlife / Surface Water Management Ponds | 8.89 |
| Proposed Wetland / Ephemeral Grassland | 0.73 |
| Existing Section of River Alyn | 0.18 |
| Existing Section of Road (A483) | 0.37 |
| **TOTAL** | **54.46Ha** |

Condition 13 of P/2016/0110

The following sections address the listed aspects of Condition 13:

a) As a result of the highly variable location, depth and quality of the mineral deposit, the full footprint of all future mineral extraction is either disturbed or as part of the final southern soil stripping of land within Area A about to be stripped. As such, there is no phased working as mineral is extracted throughout the site to allow for blending and mineral product range;
b) As per item a) the main body of the site will be restored as a single operations – no phasing required. Area A will be initially restored as part of Planning Permission Ref P/2022/0448;
c) The intended aftercare is illustrated on Drawing No. KD.BLWQ.6.D.001A contained within Appendix 2 of this letter;
d) There is no calcareous material onsite. It is an active sand and gravel quarry which tends to be of an acidic pH;
e) As above;
f) Remaining onsite soils / soil materials will be concentrated on land allocated for agricultural uses onto the regraded / reprofiled restoration formation levels;
g) It is confirmed that all plant, buildings and machinery will be removed at restoration.

Condition 14 of P/2016/0110

The following sections address the listed aspects of Condition 14:

a) There is no calcareous material onsite;
b) Seeding – Please refer to Appendix 3 for seeding mix and 5 - Year Aftercare Scheme;
c) Planting of Trees and Shrubs – Please refer to Appendix 3 for Planting Schedule and associated 5 - Year Aftercare Scheme;

d) Drainage – Please refer to Appendix 4 (Drawing No. KD.BLWQ.6.D.002) for the proposed surface water drainage layout to manage internal rain water collection and placement into the onsite water bodies. The main surface water collation ditch will be sited at the base of the western batter slope to capture surface water run off from the batter slope, and hold it before discharge into the Site internal water bodies via localised minor ditch connections. All ditches to be inspected on a six monthly basis to ensure the physical integrity is sound and that no extraneous materials are resulting in blockages. Inspection will also assess any erosion / erosion potential. Appropriate clearance / re-engineering works to take place if required;
e) Ponds and Wetland Features – please refer to Appendix 2 (Drawing No. KD.BLWQ.6.D.001A) for the location of propose ponds and wetland features. The groundwater levels of the water bodies will be monitoring annually for 5 – years to ascertain any variance. Land surrounding the water bodies will be checked for any signs of erosion. If erosion does occur the heigh levels and gradients illustrated on Drawing No. KD.BLWQ.6.D.001A will be considered in remedial works to rectify any localised defects / changes to allow for the containment and management of on-site water. Ponds and wetland features will be allowed to naturally regenerate. No further management is proposed.

I trust that the information provided within this document and associated appendices appropriately and suitably address the requirements of Conditions 13 and 14 of Planning Permission P/2016/0110.

Should you have any queries, please let me know.

Yours Sincerely,

[redacted]
Jack Chamberlain
**Kedd Limited**

## Appendix 1 – Schedule 3: List of Conditions (P/2016/0110)

P /2016 /0110

**SCHEDULE 3**

**LIST OF CONDITIONS**

1. The development hereby permitted is for the winning and working of sand and gravel only and shall be carried out at all times in accordance with the approved plans and application drawings, as amended by the conditions attached to this permission.

2. Mineral working at the site shall cease no later than 22 February 2042.

3. The development hereby approved (as defined in Condition 1) shall only take place between the hours of 0700 to 1800 hours Mondays to Fridays, 0730 to 1300 hours Saturdays with no operations to be undertaken outside of these hours, or on any Sunday, Bank or Public Holiday.

4. Sole vehicular access/egress to/from the site shall be via the access from Cae Mawr Lane permitted under planning permission CB307.

5. The access on to Cae Mawr Lane shall be maintained in a good state of repair and kept clean and free of mud and other material at all times throughout the period of the development.

6. No vehicles shall enter the public highway unless their wheels and chassis have been cleaned, as may be necessary, to prevent material being deposited onto the public highway.

7. All mineral bearing vehicles leaving the site shall be sheeted so as to prevent loss and spillage, with the sole exception of vehicles carrying stone of a size in excess of 500mm diameter.

8. Mineral extraction shall only take place from within the areas indicated on, and to the depth shown on, the approved drawings.

9. (i) The noise levels to be received at the façade of any noise sensitive premises adjacent to the site shall not exceed 55 dB(A) measured as a One Hour Laeq free field.

   (ii) The nominal noise limit set out in 9 (i) may be exceeded to a maximum of 70 dB Laeq One Hour over a maximum period of eight weeks per calendar year, which shall be notified beforehand in writing, for operations involving soil stripping, soil replacement and soil bund formation.

10. All existing mobile plant at the site, and any new or additional mobile plant, shall be fitted with appropriate sound reduced reversing alarms.

11. The development hereby permitted shall be carried out in accordance with a scheme of dust management to be submitted to the Mineral Planning Authority for approval within six months from the date of the permission and once approved the dust management scheme shall be implemented in full during the period of the development to which it applies.

12. Prior to the commencement of mineral working from any new area or area which was undisturbed at the date of this permission a survey of the existing flora and fauna shall be undertaken and submitted in writing to the Mineral Planning Authority. Any such survey shall target species protected by statue in order to identify whether they are present and to identify habitat associated with such species. The results of the survey shall be used to identify where, and in what manner, reasonable avoidance and conservation measures need to be undertaken the details of which shall be provided in writing for the prior approval of the Mineral Planning Authority. The approved measures shall be implemented in full prior to working commencing in the new or previously undisturbed area(s).

13. Within twelve months of the date of this permission a scheme for the restoration of the site shall be submitted for the approval of the Mineral Planning Authority. This scheme shall make provision for:

    (a) the intended phasing of working the site
    (b) the intended phasing of restoring the site
    (c) the intended afteruse
    (d) the retention on site of sufficient calcareous material to provide a substrate with a depth of 1 metre
    (e) the replacement of calcareous materials to a minimum depth of 1 metre
    (f) the landform of the site upon completion of regrading/reprofiling
    (g) the removal of all plant, buildings and machinery

14. Upon completion of the works required in each phase of restoration under Condition 14, aftercare works shall be carried out for a period of five years according to a scheme to be submitted to, and approved by, the Mineral Planning Authority. The aftercare scheme shall be submitted from the approval in writing of the Mineral Planning Authority within twelve months of the date of this permission, and be implemented as approved thereafter. The aftercare scheme shall make provision for:

    (a) the re-spreading of calcareous material
    (b) seeding
    (c) planting of trees and shrubs
    (d) drainage
    (e) ponds and wetland features
    (f) the replacement of dead, diseased and dying trees

15. In the event of the cessation of the winning and working of minerals which, in the reasonable opinion of the Mineral Planning Authority constitutes a permanent cessation within the terms of paragraph 3 of Schedule 9 of the Town and Country Planning Act 1990, a revised scheme, to include details of restoration and aftercare, shall be submitted for the approval in writing of the Mineral Planning Authority, within three years of the cessation of the winning and working of minerals. The restoration details approved in the revised scheme shall be implemented in full within two years of the approval and be followed by the aftercare requirements of the approved revised scheme for a period of five years beginning with the completion of the restoration works.

## Appendix 2 – Drawing No. KD.BLWQ.6.D.001A Concept Restoration Scheme

# Ballswood Quarry: *ROMP*

# Concept Restoration (ROMP)

**PROPOSALS**

The Aim of the progressive and final Concept Restoration Scheme for Ballswood Quarry is: to create a restored land use composition provides opportunities for the sustainable use of land for both productive agriculture and the creation of wildlife habitat to promote Biodiversity Net Gain (BNG) and provides new opportunities for public access within the local PROW network.

The objectives incluce:

- to re-establish and strengthen native site boundary and internal hedgerows, including hedgerow trees and broadleaved woodland
- to utilise and concentrate soils / growing medium to re-establish agricultural land
- establishment of surface water management and wildlife enhancement management pools and lakes
- creation of an overburden substrate for both natural regeneration to promote invertebrate presence and for the establishment of species rich grassland

Croes Howell Court
The Stone House
Croeshowell Hill
Yew Tree Farm
Higher Lane
Mount Alyn
Existing Agricultural Land
Species Rich Grassland
Gegin Lane
B5102 Straight Mile
Native Woodland & Scrub
Sandy Substrate
Agricultural Land
Lake: ~25mAOD
Ballswood Quarry
Species Rich Grassland
Ephemeral Wet Grassland & Wildlife / Surface Water Management Pools / Lake
River Alyn
A483
Marford
Roft Castle House
Springfield Lane
Homestead Garage
Site Access / Entrance
Lake: ~25mAOD
Species Rich Grassland
Sandy Substrate
Native Woodland & Scrub
Existing Agricultural Land
Existing Woodland
Existing Woodland
Agricultural Land
Singret
Singret Farm

30.0 55.0 23.0 73.0 40.0 70.0 74.0 76.0 30.0 34.0 22.0 22.0 60.0 73.0 28.0 73.0 72.0 72.0 23.0 23.0 78.0 28.0 40.0 50.0 65.0 24.0 52.0 24.0

LEGEND

- Planning Permission Boundary ref. P/2016/0110 (ROMP)
- Existing Buildings, Structures, Roads and Tracks
- 52.0 Contours (2m) and Spot Heights
- Homestead Garage
- Mount Alyn
- Concrete Batching Plant
- Surrounding Water Bodies
- Existing Woodland, Trees, Shrubs and Hedgerows
- Proposed Wildlife / Surface Water Management Pools
- Agricultural Land within the Planning Application Boundary
- Proposed Native Woodland & Shrub Planting
- Proposed Species Rich Grassland / Proposed Sandy Substrate Habitat Creation
- Proposed Wetland / Ephemeral Grassland
- Proposed Agricultural Land
- Permissive Path
- Public Rights of Way (PROW)

**CHESHIRE & NORTH WALES SAND & GRAVEL LTD.**

KEDD Limited

PROJECT:
Ballswood Quarry: ROMP

TITLE:
Concept Restoration (ROMP)

REF NO:
KD.BLWQ.6.D.001A

DATE:
May 2024

SCALE:
1:5,000 @ A3

STATUS:
FINAL

N

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Fox Studio, Much Wenlock, Shropshire TF13 6BL

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## Appendix 3 – Information to Satisfy Condition 13 & 14 of Planning Permission Ref: P/2016/0110

# Ballswood Quarry ROMP Permission

## Information to Satisfy Condition 13 & 14 of Planning Permission Ref: P/2016/0110

***Restoration***

**Condition 13.** *Within twelve months of the date of this permission a scheme for the restoration of the site shall be submitted for the approval of the Mineral Planning Authority. This scheme shall make provision for:-*

*a) The intended phasing of working the site*
*b) The intended phasing of restoring the site*
*c) The intended afteruse*
*d) The retention on site of sufficient calcareous materal to provide a substrate with a depth of 1 metre*
*e) The replacement of calcareous materials to a minimum deoth of 1 metre*
*f) The landform of the site upon completion of regrading / reprofiling*
*g) The removal of all plant, buildings and machinery.*

***Aftercare***

**Condition 14.** *Upon completion of the works required in each phase of restoration under Condition 14, aftercare works shall be carried out for a period of five years according to a scheme to be submitted to, and approved by, the Mineral Planning Authority. The aftercare scheme shall be submitted from the approval in writing, by the Mineral Planning Authority within twelve months of the date of this permission, and be implemented as approved thereafter. The aftercare scheme shall make provision for:*

*a) the re-spreading of calcareous material*
*b) seeding*
*c) planting of trees and shrubs*
*d) drainage*
*e) ponds and wetland features*
*f) the repacement fo dead, diseased and dying trees*

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Sheet 2: ROMP Permission

Sheet 3: Agricultural Land

Sheet 5: Species Rich Grassland

Sheet 6: Native Woodland (Tree & Scrub Planting)

Sheet 7: Native Hedgerow

## INTRODUCTION

This document is a Detailed Restoration and Aftercare Scheme, prepared by Kedd Limited, in respect of the permitted mineral extraction scheme at Ballswood Quarry, permitted under Planning Permission ref. P/2016/0110. The document has been prepared in order to satisfy the requirements of Condition 13 and 14. For the 'Extension Area A' which is included within the ROMP planning boundary, but permitted for mineral extraction operations under Planning Permission P/2022/0448; the elements of the approved Restoration Scheme (KD.BLWQ.2.D.008) from this area are reflected within the submitted Concept Restoration Scheme (KD.BLWQ.6.D.001A) and Aftercare Scheme included within this document.

Restoration within Ballswood Quarry, will comprise the following land uses and features.

| | ***Approximate Areas (Ha)*** |
|---|---|
| • ***Agricultural Land*** | 9.85Ha |
| • ***Species Rich Grassland / Sandy Substrate*** | 9.76Ha |
| • ***Native Woodland (Tree & Shrub Planting)*** | 6.27Ha |
| • ***Re-establishment of Native Hedgerow*** | 297m |
| • ***Wildlife / Surface Water Management Ponds*** | 8.89Ha |
| • ***Proposed Wetland / Ephemeral Grass*** | 0.73Ha |

All restoration and aftercare works will be carried out in accordance with the specifications and prescriptions set out within this Detailed Restoration and Aftercare Scheme.

# Ballswood Quarry: ROMP Permission

## Information to Satisfy Condition 13 & 14 of Planning Permission Ref: P/2016/0110

***The inset plan opposite is the Proposed Concept Restoration Scheme for Ballswood Quarry.***



# Ballswood Quarry: ROMP Permission

***Agricultural Land***

Agricultural Land is a principle restoration land use. 9.85 Ha of land will be restored to Agriculture. The soil profile will be variable as there are limited soil resources on site. It is intended to establish a minimum 300mm soil material over a 600mm permeable overburden material. An agricultural grass ley mix will then be established to stabilise the new soil profile and allow mowing or grazing by young stock in the first few years before conversion to arable production - if desired by the landowner.

The restored agricultural land/landform will be monitored in respect of surface water movement, ground compaction and standing water.

Initial Agricultural Seeding

After placement of the topsoil to restore land to an agricultural afteruse, the surface will be cultivated to produce a fine, firm seedbed and sown with a medium-term grass ley (species as below or similar). The land will be then established and managed in accordance with the following Aftercare Strategy and Detailed Annual Management programme.

Proposed Initial Agricultural Seed Mix

75% Ryegrass
20% Red Clover
5% White Clover

*Establishment/General Notes:*

- A short term agricultural ley will be created in the first two years after restoration and thereafter the land will either be used as pasture or arable land depending on the landowner/ manager's requirements.
- Land is to be cultivated using discs, power harrow and rolls to create a fine, firm seedbed, it will then be seeded and rolled.
- Any stones lying on the surface, which would not pass through a 100mm wire screen mesh, together with other objects likely to obstruct future cultivation, will be removed from the site.
- Given the permeability of the gravelly soil profile and in-situ material it is not considered that underdrainage installation will be required. After restoration and monitoring of ground conditions for at least two years as well as consultation with the landowner / manager.
- Soil sampling and crop monitoring is to take place to ensure soil fertility is satisfactory to achieve and maintain the long term site restoration after uses. As a result of this, appropriate applications of fertiliser and/or weed control treatment will be implemented, if necessary.
- If necessary fertiliser and lime shall be applied to the restored land at a rate calculated to achieve the nutrient levels to successfully establish a short-term grass ley or cereal crop.
- Initial grass seeding work will take place between April and May or late August to mid September dependent upon the date when restored land becomes available.
- If a cereal crop is selected it will be drilled in either spring or autumn and the type will depend upon the landowners / managers cropping requirements / rotation.
- Occasional periodic dressings with farmyard manure and lime, where determined beneficial, will be completed during the aftercare period.
- Conservation headlands will be ploughed and sown at the same time as the main field with a conservation field margin seed mix (Wynnstay Field Margin Grass Seed Mix or similar).
- Field margins to agricultural land will be lightly grazed or cut once every 3 years (outside the bird nesting season) and kept free of pesticides and fertiliser.

*Aftercare:*

**Year 1** *(short-term grass ley)*

- The sward is to be allowed to establish.
- Soil samples are to be taken and analysed in March.
- Fertiliser/lime (based on soil sample results) - to be applied in April.
- If required, re-seeding works are to take place in April.
- Monitoring of soil drainage will be reported at the first year aftercare meeting.
- All restored land to be treated with an approved chemical herbicide to prevent weed establishment.
- One cut of hay or silage will be taken in early June and a second cut will be taken in July/August if there is sufficient growth.
- In the first year, the aftermath will be topped to 100mm before entering the winter period and any arisings which would smother the grass will be collected and carted off site.

# Ballswood Quarry: ROMP Permission

***Agricultural Land - continued...***

**Year 2** *(grassland)*

- A grass crop for silage/hay if there is sufficient growth.
- Nitrogen fertiliser will be applied for a second grass cut.
- Soil samples are to be taken and analysed in March and based on the results, fertiliser/lime to be applied in April.
- Monitoring of soil drainage will continue.
- All restored land is to be treated with an approved chemical herbicide to prevent weed establishment, if necessary.
- Should it be required, an under drainage scheme will be designed and submitted to the MPA for approval.

**Year 3** *(grassland option)*

- A grass crop for silage/hay is to be taken if there is sufficient growth.
- Soil samples are to be taken and analysed in March and based on the results, fertiliser/lime is to be applied in April, if necessary.
- Cultivation of topsoil will take place comprising discing and chain harrowing as required. Also upon completion of each stage of the cultivation process, stones that will not pass through a 100mm square wire mesh screen are to be removed.
- Given appropriate ground and nutrient conditions, re-seeding works may take the place of a more permanent grass ley.
- Monitoring of soil drainage and remedial works are to take place if required.
- All restored land is to be treated with an approved chemical herbicide to prevent weed establishment, if necessary.

**OR:**

**Year 3** *(cereal option)*

- Undertake soil analysis for P, K, Mg and pH to assess lime and fertiliser requirements for the chosen winter cereal crop.
- After seedbed preparation, drill cereal, e.g. Winter Barley, at approximately 175kg/ha and roll to get good seed-soil contact.
- Apply seedbed fertiliser and insecticides and herbicides, as required, in a tank mix to minimise the number of passes.
- In the spring apply nitrogen top dressing and herbicides and fungicides as required. v. July/August harvest.
- Glyphosate for stubble hygiene. vii. Cereal variety to be agreed at the aftercare meeting.

**Year 4** *(grassland option)*

- A hay/silage crop is to be taken in autumn.
- Soil analysis to take place in March followed by the implementation of fertiliser application and liming in April - dependent upon hay/grazing use.
- All restored land to be treated with an approved chemical herbicide to prevent weed establishment, if necessary.
- Monitoring of soil drainage and remedial works are to take place if required.

**OR:**

**Year 4** *(cereal option)*

As Year 3. Cereal variety to be agreed at the aftercare meeting.

**Year 5** *(grassland option)*

As Year 4.

**OR:**

**Year 5** *(cereal option)*

As Year 3 & 4. Cereal variety to be agreed at the aftercare meeting.

# Ballswood Quarry: ROMP Permission

## *Species Rich Grassland*

9.76 Ha of Species Rich Grassland is to be established and managed across Ballswood Quarry. The landuse provides the connecting habitat between the areas of woodland to the periphery and the agricultural land proposed more centrally within the site.

Land will be sown with a grass mix, incorporating wild flower species suitable for a long- term management regime that may include both grazing and cutting. Species including yarrow, knapweed, meadow buttercup, sorrel and lady's bedstraw are to be included.

| Species | Common Name | % |
|---|---|---|
| **Wildflowers** | | **20** |
| Achillea millefolium | Yarrow | 0.5 |
| Centaurea nigra | Common Knapweed | 3 |
| Daucus carota | Wild Carrot | 1.5 |
| Echium vulgare | Viper's Bugloss | 2 |
| Galium verum | Lady's Bedstraw | 2.5 |
| Leucanthemum vulgare | Oxeye Daisy | 0.5 |
| Linaria vulgaris | Common Toadflax | 0.2 |
| Lotus corniculatus | Birdsfoot Trefoil | 0.5 |
| Malva moschata | Musk Mallow | 1 |
| Plantago media | Hoary Plantain | 0.5 |
| Primula veris | Cowslip | 1 |
| Prunella vulgaris | Selfheal | 1.5 |
| Ranunculus acris | Meadow Buttercup | 1 |
| Ranunculus bulbosus | Bulbous Buttercup | 2 |
| Rumex acetosa | Common Sorrel | 1.5 |
| Rumex acetosella | Sheep's Sorrel | 0.5 |
| Scorzonerioides autumnalis | Autumn Hawkbit | 0.2 |
| Trifolium pratense | Wild Red Clover | 0.1 |
| **Grasses** | | **80** |
| Agrostis capillaris | Browntop Bent | 10 |
| Agrostis vinealis | Brown Bent (w) | 4 |
| Anthoxanthym odoratum | Sweet Vernal grass | 4 |
| Cynosurus cristatus | Crested Dogstail | 16 |
| Deschampsia flexuosa | Wavy Hair-grass | 2 |
| Festuca ovina | Sheep's Fescue | 20 |
| Festuca rubra | Slender creeping Red fescue | 16 |
| Koeleria macrantha | Crested Hair-grass | 3 |
| Phleum bertolonii | Smaller Cat's tail | 5 |
| **Total** | **Sowing Rate: 4g/m2** | **100** |

The sowing rate will be 40kg/Ha, therefore requiring 6.5kg of seed mix.

### Preparation / Sowing:

Good preparation is essential to success, aiming to control weeds and produce a good quality seed bed before sowing. Sandy soils are usually infertile, well drained and easy to work. To prepare a seed bed, first weeds are to be removed using repeated cultivation and /or a herbicide. Then ploughing or digging to bury the surface vegetation, followed by harrowing to produce a medium tilth, and roll, or tread, to produce a firm surface.

Seed is to be sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. The seed should not be incorporated or covered, but firmed in with a roll, or by treading, to give good soil/seed contact.

- Spray profile 3 weeks after soil replacement to ensure killing off of any latent weeds within the upper soil profile. Remove any weeds using repeated cultivation.
- Prior to seeding, the soil layer is to be disced and power harrowed to a depth of 200mm to create a homogeneous well-broken, non-compacted tilth of 50mm.
- Stones and deleterious material exceeding 100mm in diameter to be removed before cultivation.
- Seeds to be sown according to manufacturers instructions at a rate of ~4g/$m^2$.
- Seeds to be British and preferably of local provenance.
- All cultivations will only be undertaken during dry ground and weather conditions.

### Management:

- A grassland cutting regime based on a cut to 50-75mm height following seed head production - seseasonal grazing to be considered.
- Heathland areas to be left uncut within the first year and spot treated to remove invasive weeds to promote species estblishment.
- Re-seeding of failed areas where necessary.
- One visit per annum until final restoration of the quarry has been completed, when the 5 year aftercare scheme will commence.
- Visits to include encouraging the development of the scrapes / marginal areas.
- Removal of noxious weeds may also be necessary.
- An option for selective seasonal grazing (post year 1) to be considered to encourage the development of poached micro-habitat within areas of damp ground that would lead to the development of tussocky grassland
- Clearance works to maintain 15% of the habitat as bare ground throughout the management period - via cutting.

### 5 Year Aftercare:

| Management Activity | Y1 | Y2 | Y3 | Y4 | Y5 |
|---|---|---|---|---|---|
| Spot treatment control of noxious weeds with broadleaved herbicide (Mid Summer) | ■ | ■ | ■ | ■ | ■ |
| Mowing with cuttings left in-situ (July) | ■ | | | | |
| Selective mowing (Late Summer) | | ■ | ■ | ■ | ■ |
| Mowing of 'rides' to establish contrasting heights of herbage (Late Summer) | | ■ | ■ | ■ | ■ |
| Selective grazing (Summer) | | ■ | ■ | ■ | ■ |
| Possible reseeding of failed areas | | | ■ | | ■ |

■ *Action Within this Period*

□ *No Action Required*

# Ballswood Quarry: ROMP Permission

***Native Woodland - Tree & Scrub Planting***

6.27 Ha of Native Woodland is to be established and managed to the southern, south eastern and western boudnaries of the site, adjacent ot the existing woodland areas.

| Planting Specification | | | | | |
|---|---|---|---|---|---|
| **Species** | **Common Name** | **% Mix** | **Height (cm)** | **Bareroot (BR)** | **N° of Plants** |
| **Trees** | | | | | |
| Carpinus betulus | Hornbeam | 10 | 20-30 | BR | 1570 |
| Fagus sylvatica | Beech | 10 | 45-60 | BR | 1570 |
| Acer camprestre | Field Maple | 5 | 20-30 | BR | 780 |
| **Shrubs** | | | | | |
| Corylus avellana | Hazel | 15 | 45-60 | BR | 2350 |
| Crateagus monogyna | Hawthorn | 15 | 20-30 | BR | 2350 |
| Viburnum opulus | Guelder Rose | 10 | 45-60 | BR | 1570 |
| Malus sylvestris | Crab Apple | 10 | 45-60 | BR | 1570 |
| Cornus sanguinea | Dog Wood | 5 | 45-60 | BR | 780 |
| **Nurse Species** | | | | | |
| Betula pendula | Birch | 10 | 30-45 | BR | 1570 |
| Sorbus aucuparia | Mountain Ash Rowan | 10 | 45-60 | BR | 1570 |
| | | **100** | | | **15,680** |

## Preparation / Establishment:

- Planting will be directly into the restored and cultivated soil profile.
- All trees & shrubs to be of local provenance.
- All trees and shrubs to be planted at 2m centres in 300x300x300mm pits backfilled with original ground material and/or notch planted.
- Stock to be planted in species pure groups of 3, 5 and 9 plants.
- Stock to be protected by 1 No 75cm Tubex tree guard (or equivalent) secured and supported by a 900x32x32mm treated softwood stake or 900mm canes.
- All tree / shrub planting blocks are to be protected by stock proof fencing where required due to adjacent land management (see Figure 2 for specification).
- 1 No individual stile is to be fixed within the fencing to allow access for ongoing management and maintenance.
- Planting to be undertaken between November and March.
- Trees should be watered during any dry spells in the first growing season.

## Management:

- During years 1 to 3, three maintenance visits will be made per annum (March, May and September).
- During years 4 and 5, two maintenance visits will be made per annum (May and September).
- Weeding in 1m diameter around the bases of the trees will be required to help combat competing vegetation with Years 1 to 5.
- Following the 1st growing season, each winter a failed 'beating up' inspection will take place to ensure an 85% overall stocking density by years 3 and 5. This will include the replacement of dead/diseased or dying plant stock (within the following planting season), replacement/ straightening of tree guards and stakes, and removal of herbaceous vegetation from tree guards as necessary to ensure successful establishment.
- The tree guards and canes should be inspected within Years 1 to 5 to ensure their integrity. Once the trees have matured the tree guards must be removed (by Year 5)
- Formative pruning should take place throughout the 5 years to counter poor structure and development. This should take place in years 3 and 5.
- Tree thinning (25%) should also be undertaken where necessary. It is anticipated that this will be required in Year 5, however growth should be monitored throughout the aftercare period.

## 5 Year Aftercare:

| Management Activity | Y1 | Y2 | Y3 | Y4 | Y5 |
|---|---|---|---|---|---|
| Pruning to counter poor structure and development (where necessary) | | | ■ | | ■ |
| Maintenance of tree / shrub guards | ■ | ■ | ■ | ■ | ■ |
| Clearance of herbaceous material from tree guards | ■ | ■ | ■ | ■ | ■ |
| Failed plant 'Beat Up' to 85% stocking to next season | | | ■ | | ■ |
| Tree guards removed (if established) | | | | | ■ |
| Thinning by 25% if required | | | | | ■ |

■ *Action Within this Period*

□ *No Action Required*

# Ballswood Quarry: ROMP Permission

***Native Hedgerow***

297 linear metres of Native Hedgerow is to be re-established to within the eastern area of the site. The hedgerow defines the boundary between the land worked under Planning Permission P/2016/0110 and the Extension Area A which was approved under Planning Permission P/2022/0448.

| Planting Specification | | | | | |
|---|---|---|---|---|---|
| **Species** | **Common Name** | **% Mix** | **Height (cm)** | **Bareroot (BR)** | **N° of Plants** |
| **Trees** | | | | | |
| Crateagus monogyna | Hawthorn | 30 | 35-40 | BR | 535 |
| Corylus avellana | Hazel | 30 | 35-40 | BR | 535 |
| Acer camprestre | Field Maple | 15 | 35-40 | BR | 267 |
| Sambucus nigra | Elder | 15 | 35-40 | BR | 267 |
| Prunus spinosa | Blackthorn | 5 | 35-40 | BR | 89 |
| Rosa canina | Dog Rose | 5 | 35-40 | BR | 89 |
| | | **100** | | | **1,782** |

## Preparation / Establishment:

- Generally, all planting will be undertaken in a double-staggered row (set 0.5m apart) with plants distributed 300mm apart along each row (6 plants per linear metre)
- Stock of 30-45cm 1+1 transplants will be used.
- Planting will take place between the end of November and the end of March
- All plants will be protected from stock and rabbit grazing, either by Green-tech biodegradable 600mm high tree stocks / tubes fixed to 900mm cane. All plants will be planted using notch-planting techniques.

## Management:

- Following the 1st growing season, each winter, a failed 'beating up' inspection will take place to ensure an 85% overall stocking density by years 3, and 5;
- This will include the replacement of dead / diseased or dying plant stock (in the next appropriate planting season), the replacement / straightening of tree guards and stakes, removal of herbaceous vegetation from tree guard as necessary to ensure successful establishment;
- To control weeds and allow proper growth and prevent unwanted succession by invasive species, each spring, one application of an approved glyphosate will be applied to margins and / or additional spot spraying of any unwanted vegetation. If necessary and depending on the severity or amount of vegetation, encroaching vegetation will be strimmed or hand weeded (March, May and September);
- During years 1 to 3, three maintenance visits will be made per annum (March, May and September);
- During years 4 to 5, two maintenance visits will be made per annum (May and September);
- During years 5 to 10, one maintenance visit will be made per annum (May);
- During May and September visits, any dead, dying or diseased species are to be taken out and removed off site and replaced during the following planting season (December to April) to ensure an 85% overall stock density by years 5 and 10;
- In years 5, 7 and 10 (if plants have grown to a suitable level) then the hedgerow will be laid to encourage longevity and maintain density;
- All protective tree / shrub guards to be removed during the winter of year 5 unless agreed otherwise;
- Existing hedgerows and new hedges are to be cut yearly, establish bulk and shape between beginning September and end February, but preferably in winter after most of the potential berries have gone.

## 5 Year Aftercare:

| Management Activity | Y1 | Y2 | Y3 | Y4 | Y5 |
|---|---|---|---|---|---|
| Light Pruning | | | ■ | ■ | ■ |
| Maintenance of tree / shrub guards | ■ | ■ | ■ | ■ | ■ |
| Clearance of herbaceous material from tree guards | ■ | ■ | ■ | ■ | ■ |
| Failed plant 'Beat Up' to 85% stocking rate | ■ | ■ | ■ | ■ | ■ |
| Encroaching vegetation strimmed / removed (July) | ■ | ■ | ■ | ■ | ■ |
| Tree guards removed (if established) | | | | | ■ |
| Hedge laying if there is sufficient growth | | | | | ■ |

■ *Action Within this Period*

□ *No Action Required*

## Appendix 4 – Drawing No. KD.BLWQ.6.D.002 Condition 14 Drainage, Ponds and Wetland Features

# Ballswood Quarry: *ROMP*

## Condition 14 (d) drainage & (e) ponds and wetland features

**PROPOSALS**

The Aim of the progressive and final Concept Restoration Scheme for Ballswood Quarry is: to create a restored land use composition provides opportunities for the sustainable use of land for both productive agriculture and the creation of wildlife habitat to promote Biodiversity Net Gain (BNG) and provides new opportunities for public access within the local PROW network.

The objectives incluce:

- to re-establish and strengthen native site boundary and internal hedgerows, including hedgerow trees and broadleaved woodland
- to utilise and concentrate soils / growing medium to re-establish agricultural land
- establishment of surface water management and wildlife enhancement management pools and lakes
- creation of an overburden substrate for both natural regeneration to promote invertebrate presence and for the establishment of species rich grassland

Croes Howell Court
The Stone House
Croeshowell Hill
Yew Tree Farm
Higher Lane
Mount Alyn
Existing Agricultural Land
Species Rich Grassland
Gegin Lane
B5102 Straight Mile
Native Woodland & Scrub
Sandy Substrate
Agricultural Land
Lake: ~25mAOD
Ballswood Quarry
Species Rich Grassland
Ephemeral Wet Grassland & Wildlife / Surface Water Management Pools / Lake
River Alyn
A483
Marford
Roft Castle House
Springfield Lane
Homestead Garage
Site Access / Entrance
Lake: ~25mAOD
Species Rich Grassland
Sandy Substrate
Native Woodland & Scrub
Existing Agricultural Land
Existing Woodland
Existing Woodland
Agricultural Land
Singret
Singret Farm

30.0 55.0 23.0 73.0 40.0 70.0 74.0 76.0 30.0 34.0 22.0 22.0 60.0 73.0 28.0 73.0 72.0 23.0 23.0 78.0 28.0 40.0 50.0 65.0 24.0 52.0 24.0

LEGEND

- Planning Permission Boundary ref. P/2016/0110 (ROMP)
- Existing Buildings, Structures, Roads and Tracks
- 52.0 Contours (2m) and Spot Heights
- Homestead Garage
- Mount Alyn
- Concrete Batching Plant
- Surrounding Water Bodies
- Existing Woodland, Trees, Shrubs and Hedgerows
- Proposed Wildlife / Surface Water Management Pools
- Agricultural Land within the Planning Application Boundary
- Proposed Native Woodland & Shrub Planting
- Proposed Species Rich Grassland / Proposed Sandy Substrate Habitat Creation
- Proposed Wetland / Ephemeral Grassland
- Proposed Agricultural Land
- Permissive Path
- Public Rights of Way (PROW)
- Surface Water Drainage Ditch / Localised minro ditch connection to water bodies

**CHESHIRE & NORTH WALES SAND & GRAVEL LTD.**

KEDD Limited

PROJECT:
Ballswood Quarry: ROMP

TITLE:
Condition 14 (d) drainage & (e) ponds and wetland features

REF NO:
KD.BLWQ.6.D.002

DATE:
May 2024

SCALE:
1:5,000 @ A3

STATUS:
FINAL

N

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