Barrmill Plant Services Ltd

DOCKRA QUARRY

WORKING METHOD STATEMENT

MAY 2023

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1 INTRODUCTION

Dockra Quarry, North Ayrshire is located approximately 2 kilometres to the southeast of Beith centred at Ordnance Survey National Grid Reference NS 36402 52548 and is approximately 5.2 hectares.

The site is an historic limestone quarry which has been left unrestored and been subject to natural regeneration. The quarry bowl has filled to form a large kidney shaped waterbody which comprises the majority of the site's eastern half set amongst steep quarry faces. The western half of the site is composed of regenerated semi-natural mixed broadleaf woodland. The existing topography can be seen in drawing WG850/L/F/01.

The steep quarry faces set above a waterbody present a health and safety risk should anyone seek to access the water.

Barrmill Plant Services Ltd wishes to submit an application to fill the quarry void with inert materials. This will remove the health and safety risk associated with the existing void and provide a location in North Ayrshire where inert materials which are unsuitable for re-use in construction, can be reused in landforming reducing transport distances, and associated emissions and supporting economic growth.

Following infilling, proposed restoration will take place in accordance with the scheme shown in drawing WG850/L/F/05. The restoration will form two large waterbodies designed in accordance with best practise from "freshwaterhabitats.org". The surrounding area will be planted with a native woodland and wet woodland mix. The area planted with trees shall exceed that which was felled prior to operations commencing.

2 SITE OPERATIONS.

Preparation of the site before infilling will commence with pumping the water out of the waterbody. This will be carried out slowly over several days to ensure minimal environmental impact. The areas of the site to be developed will be cleared of vegetation and woodland out with the breeding bird season (March to August).

Any soils within the site will be stripped and placed within the site for use in restoration in accordance with MAFF's Good Practice Guide for Handling Soils. All soils will be stored in low level bunds no greater than 4m in height. Seeding and weed control measures will be utilised as necessary to ensure the soils remain in a suitable condition for future use in restoration. All soil stockpile locations will be clearly demarcated and protected from vehicle tracking during tipping operations. Soils will only be moved or worked on when they are in a dry and friable condition.

Once site preparation is complete the infilling of inert waste will commence. Prior to acceptance of waste materials from any potentially contaminated site, confirmation of its suitability and safety for use in the project will be established by a suitably qualified professional. This will be undertaken by a review of available documentary evidence including contaminated land assessment/historical map data:

Where insufficient information is provided to allow a valid assessment then a suitably qualified professional will certify its suitability by visual and chemical testing of the source material.

Testing carried out on behalf of Barmill Plant Serivces Ltd will be undertaken for the following parameters;

pH value, arsenic, mercury, selenium, copper, nickel, zinc, lead, chromium, hexavalent chromium, cadmium, total sulphate, water soluble sulphate analysis (2:1 extract), phenols, water soluble boron, total cyanide, sulphides, EA speciated TPH ali/aro split speciated, PAH (16 US EPA) by GCMS, soil organic matter and asbestos.

Materials will only be imported where they are considered to be inert using levels derived with reference to the current UK contaminated land guidance.

Material placement will require building a suitable and safe ramp to the base of the quarry void. Inert waste tipping will be block tipped on stable ground using articulated dump trucks.

A dozer will track over the block tipping to ensure sufficient compaction and create a safe platform to tip the next layer of material. Compaction of each layer will reduce the final settlement of the inert waste. Tipping will be carried out in layers until the restoration landform is achieved as shown in drawing WG850/L/F/02. Drawing WG850/L/F/03 shows a cross section through the existing topography and the proposed restoration landform.

Care should be taken when tipping near the historic quarry faces. Dumpers will not tip off within 10m of the edge of the tip. Tipping within the 10m standoff could cause the crest of the tip to fail. The dozer or shovel will ensure it remains on stable ground by maintaining a mound of material or raised incline ahead of the machine. Tip material will be pushed by dozer up and over the face to maintain a bund from the open edge.

Daily inspections of the tipping operation will be carried out to confirm the stability of the tipped material and adequacy of the stand off restrictions. The dozer operative will monitor the tipped material for signs of slumping, cracking, or sinking. Should any signs of instability be noted, all work should be suspended, and access prohibited until geotechnical advice is sought.

3 RESTORATION AND AFTERCARE.

The restoration landform has been designed to achieve the assumed original ground levels prior to quarrying operations. This is delineated in Drawing WG850/L/F/03 and WG850/L/F/05.

Soils will be placed over the inert filled material. Soil will be loose spread and lightly consolidated into the required profile only when conditions are dry and the soil is in a friable state. Soil will be transported by trailer close to spreading site and spread by bulldozer to the required depth. Haulage and excavator traffic will be constrained to designated roadways which will be backfilled as the last filling operation of each section. No heavy wheeled earthmoving vehicles or machines will run over completed restoration areas to minimise compaction.

The two waterbodies will be formed using an excavator and bulldozer. After soil placement the areas will be planted or seeded as per restoration drawing WG850/L/F/05.

The overall objective of restoration is to focus on biodiversity enhancement and habitat creation. The restoration approach to the infilled area will be undertaken with an aim of restoring primarily to two shallow waterbodies set amongst diverse native wet woodland, woodland and species rich grassland. Shallow margins will be created within the waterbodies to promote ecological benefits. The woodland planted will be greater than that proposed to be felled by 0.2Ha.

All restored areas will be closely monitored throughout an appropriate aftercare period so that the most suitable management regime can be defined on an area-by-area basis and incorporated into the aftercare management plan. Aftercare will be carried out in accordance with the methodology described in drawing WG850/L/F/05. This management plan will be formulated in accordance with the recommendations made within Planning Advice Note 64: Reclamation of Surface Mineral Workings.