

PARRYS QUARRY INERTY LANDFILL SITE

RESTORATION PLAN

CONTENTS

1.0 INTRODUCTION

- 1.1 Site Location and Works Description
- 1.2 Supervision
- 1.3 Surveying
- 1.4 Validation Report

2.0 SOIL IMPORTATION

- 2.1 General Description
- 2.2 Waste Types
- 2.3 Inert Waste Importation and Volumes
- 2.4 Waste Acceptance Criteria for Inert Soils for use in Restoration

REFERENCES

TABLES:

Table 1 - Inert Waste Types for Site Restoration

DRAWING

ESSD5 Restoration

APPENDICES

Appendix 1 - CQA Forms

DEFINITION OF TERMS

- Aftercare - The maintenance work needed to ensure that a restored landfill site does not produce environmental problems
- Afteruse - The use to which the landfill site is put following its restoration
- Restoration - Completion of the landfill site to allow planned afteruse
- Soil - The medium in which plants live and grow and from which through their roots they obtain water and nutrients
- Subsoil - The less well-structured and less biologically active layer below top soil which acts as a reserve of nutrients and water for plant growth
- Top Soil - The biologically active surface layer of soil which provides a medium for cultivation of plants
- NRW - the Natural Resources Wales
- Works - the permanent works as shown on the contract drawings

PARTIES AND RESPONSIBILITIES

There parties involved in the development works outlined in this document, and these are:

The Employer (Mold Investments Ltd)

This is the person or company for whom the works are constructed. The Employer is the Permit Holder for the Site. The Employer will manage design of the works and to implement and administer the contractor its construction. He will be responsible for all contractual matters relating to the Works and may vary the design of the works during construction according to the conditions encountered

The Contractor (Mold Investments Ltd)

The Contractor is responsible for constructing the works in accordance with the specification.

The Designer (White Rock Geo-Environmental Limited)

This is the person or Company appointed by the Employer to undertake the design of the Works.

The Testing Laboratory

The laboratory appointed by the Employer to perform any on or off site testing required under the Specification and the CQA Plan are listed below and up to date UKAS Accreditation certificates will be presented as part of the Validation Report. The appointed laboratory will be UKAS approved for each individual test. The CQA Engineer/PM shall be responsible for liaison with the approved laboratory with regard to the timing of the testing.

Review Period and Additional Requirements

This Restoration Plan is subject to periodic review and will be revised subject to any legislation changes or changes in Technical Guidance.

1.0 INTRODUCTION

1.1 Site Location and Works Description

Site Location

- 1.1.1 The Parrys Quarry will not require importation of soil as it will use stockpiled soils originally stripped and will be left as a development platform. In the event that open space areas require importation this restoration plan will be used.

Works Description

- 1.1.2 This Restoration Plan has been prepared by White Rock Geo-Environmental Ltd on behalf of Mold Investments Limited. The plan addresses the requirements for the placement of the restoration soils, quantities, waste types and waste acceptance criteria for the Parrys Quarry landfill site.

1.2 Supervision

- 1.2.1 Waste acceptance and waste inquiries will be dealt with by the Technically Competent Manager for the site who will ensure compliance with the conditions set out in the Restoration Plan.
- 1.2.1 The Contractor is required to have full-time supervision on site whilst any soiling activities are being undertaken above the engineered cap. Third party Construction Quality Assurance (CQA) personnel will also be present on site full time to verify the Works are constructed in accordance with the Restoration Plan.
- 1.2.2 The CQA Engineer or other delegated CQA supervisor will compile a daily log sheet of site activities. These log sheets will be kept on site during the Contract and will be incorporated into the CQA Validation Report upon completion of the Works.

1.3 Surveying

- 1.3.1 On-site station information will be provided to the Contractor prior to the commencement of work. The Contractor will be expected to liaise with the Employer's land surveyor in regard to all setting out and construction level control. The site will be filled to the levels shown on Drawing ESSD5 or any subsequent amendment in line with any planning variations.
- 1.3.2 During the Works an independent surveyor will undertake several as-built detailed surveys, on a 10m x 10m grid, and an on-site survey of test location points will also be carried out by the appointed consultants as well as a check of the independent surveyors survey checking at least 10% of the points, and these results will be presented in an excel

format to compare the eastings, northings and ordnance datum points. The as-built surveys to be undertaken are as follows:

- Pre and post placement of the soil restoration layers, including cross-sections;
- Post placement of the restoration soils, including cross sections.

1.3.3 The results of all surveys shall be forwarded to the CQA Consultant not later than five working days after the respective survey was completed. The results shall be in digital DXF format together with a hard copy.

1.3.4 The level drawings and the as-built drawing will be issued with a copy of the CQA Validation Report.

1.4 Validation Report

1.4.1 Upon completion of the works a CQA Restoration Validation Report will be prepared by the CQA Consultant and forwarded to the Agency. The report will form a permanent record on the actual construction of the Works in relation to the requirements of the Restoration Plan. The report will summarise the works undertaken, the materials and construction methods employed, the physical sampling and testing and any other observations the CQA Consultant regards as pertinent to demonstrate that the Works have been undertaken in accordance with this Restoration Plan.

2.0 SOIL IMPORTATION

2.1 General Description

- 2.1.1 Soil will be imported to the site for the purpose landscape areas on the development platform
- 2.1.2 The soils to be used for restoration will be fit for purpose, both chemically and physically.

2.2 Inert Waste Importation and Volumes

- 2.2.1 Soil will be imported to the site for the purpose of restoration using the existing site infra structure.

2.3 Waste Types

- 2.3.1 The approved wastes for restoration are summarized in Table 1 below. Typically landfill permits state :

Table 1 Inert Waste For Restoration

Waste Code	Description
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	plant-tissue waste
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 05	soils (excluding soils from excavated sites), stones and dredgings
17 05 04	soils and stones including chalk other than those mentioned in 17 05 03
17 05 06	dredging spoil other than those mentioned in 17 05 05
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER

	INTENDED FOR HUMAN CONSUMPTION / INDUSTRIAL WASTE
19 06	wastes from anaerobic treatment of waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 09	minerals (for example sand, stones)
19 13	wastes from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 02	garden and park wastes (including cemetery waste)
20 02 02	soils and stones

2.4 Waste Acceptance Criteria for Inert Soils for use in Restoration

The material to be imported to the landfill directly for restoration facility
The site restoration permitted wastes are defined as;

- a. Inert Wastes and;
- b. In accordance with the Landfill Directive and Environmental Permitting (England and Wales) Regulations 2016;
- c. Tax Qualifying Exempt Materials.

Note: The site WAP procedure is set out in Section 21 of the application Ref WAP/MIL/PQ/1.00/2020.

APPENDIX A:

CQA Forms



SITE INSTRUCTION

TO:	Site:	Loc No:
<p>You are instructed to undertake the following work:</p> <p>We confirm the following verbal instruction:</p>		
Accepted by: Of:	Originator:	

DAILY SITE RECORD

Site:	Date of Visit:	Time on Site:	Time Off Site:
Personnel/Staff:	Site Conditions/Weather: Rain off: Yes/No	Equipment:	
Operations Inspected:	Action:		
Comments on Workmanship:			
Instructions/Information Issued or Required:			
Progress Report <i>(use additional sheets if necessary)</i>			

Signature: _____