NON-TECHNICAL SUMMARY

Unit 1009, Caerwent Army Training Estate,
Caerwent

Produced by: EcoVigour
jgregory@ecovigour.com

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1.0.Contents

2.0.Introduction

Crownhill Topsoil and Aggregates (the trading name for Sole Trader Simon Stone) is a recycling company undertaking the following activities:

- The production of soils and aggregates from inert wastes for sale to the commercial and domestic markets;
- The sale of quarried aggregates to the commercial and domestic markets;

The undertaking of these activities requires that a Bespoke Environmental Permit application be submitted to Natural Resources Wales (NRW) based on the SR2010_No12 – Treatment of Waste to produce Soil, Soil Substitutes and Aggregates Standard Rule Set.

As part of this application, NRW require a Non-Technical summary of the business, which must include;

- An explanation of exactly what is being applied for;
- A summary of the regulated facilities; and
- A summary of the key technical standards and control measures arising from the risk assessment.

3.0.Site Description

The site is located at Unit 1009 of the Caerwent Army Training Estate in Caerwent. This is in the north west of Caerwent. The site is in the north of the training estate, which is bounded by the A48 to the south. At this point, the road is single lane carriageway serving the majority of the local towns and villages and offers good access to the surrounding roads and motorway network.

The Castrogi Brook runs to the west of the site, beyond which is the Dinham Meadows SSSI as well as many agricultural fields. Lanmelin Wood is located to the north and east, a dense woodland which is upslope from the site.

The site is comprised of a number of large concrete-built with brick infill buildings and open hard standing. There is a concrete surfaced haul road which runs throughout the site in a loop, allowing access to all buildings. An ephemeral drain runs through the western section of the which used to connect to a drain above the site. This was diverted by the previous operator of the site and a section has subsequently been backfilled. This drain discharges into the Castrogi Brook to the west of the site. This drain is dry for the majority of the year.

The majority of the site is utilised for the storage and processing of inert soil and stone. Some of this material is stored within the buildings, while the rest is stored in open bunds situated on the hardstanding. There are large stockpiles of compost around the north and

east boundaries of the site which was left by Wormtech, the site's previous tenants. This compost is in the process of being screened and recycled, through inclusion in the topsoil.

Please refer to Appendix A for a Site Location Plan.

4.0. Environmental Setting

4.1. Ecology

Unit 1009 offers little habitat potential for species due to the hard surfacing, lack of vegetation and frequent vehicle movements.

Llan-melin Wood SINC Ancient and Semi-natural Woodland runs along the North and East boundaries of the site, separated from the site by a bank of scrub and semi-mature trees. This joins with Dolkins Wood to the east of Unit 1009.

A section of the Dinham Meadows SSSI lies 50m west of the western boundary of Unit 1009, separated from the site by a tall mature hedgerow. A further section of the Dinham Meadows SSSI lies approximately 60m to the east of Unit 1009, with an areas of woodland scrub separating this from the site.

Coome Valley Woods SSSI lies approximately 400m to the NW.

Rich's Brake SINC (Ancient and Semi-Natural Woodland) is approximately 150m west of the site at is nearest point. The SINC is screened from the site by vegetation and buildings and is upslope from the site.

Between the southern boundary of the site and the MoD Base Access Road is a section of close cropped, improved grassland which is heavily grazed by the sheep, which graze areas of the base. There is also an area of grazed, improved grass between the sections of concrete roadway around the site. A concrete roadway runs along the southern boundary of the site.

Rainfall runoff from the site runs into two sets of attenuation ponds, one large rectangular pond for the eastern section of the site and three oval ponds for the western section of the site (please refer to Figure 2 – Site Layout) All of these ponds are lined with HDPE liners and are subject to inflow of silt laden water and hence water quality is poor. The eastern ponds are ephemeral and dry out during periods of dry weather. The western ponds may dry out during prolonged periods of dry weather.

There is a known lesser horseshoe bat roost within the former base commanders house approximately 550m SW of Unit 1009. Due to the distance from Unit 1009 this will not be directly impacted by the inclusion of an Inert Waste facility within Unit 1009, however, there is potential for this roost and the flight lines / foraging routes leading too/ from it, to be impacted through indirect impacts i.e. noise, dust, light pollution provided appropriate mitigation is not implemented. Mitigation for these impacts is set out within the Ecological Mitigation Plan, the Dust Management Plan, the noise and Vibration Management Plan and the Environmental Management System. These controls include restrictions to site operating hours, dust suppression and monitoring requirements, Restrictions on the use of artificial light within the site and mitigation for noise impacts. A

full assessment of this roost can be found in CH006 Ecological Mitigation Plan.

The site is surrounded by scrub on three sides, which offers ideal habitat for nesting birds, reptiles, amphibians and mammals.

There is historical evidence of the presence of Great crested newts within the bounds of the MOD base. These studies did not identify the presence of GCN within ponds within 500m of Unit 1009. Further GCN surveys have been undertaken of the terrestrial habitats surrounding Unit 1007 and of ponds within 600m of the site, including the attenuation ponds within Unit 1009. This included eDNA testing of the ponds. None of the ponds within 500m of Unit 1009 tested positive for GCN DNA, however Pond 8, which is 580m SE of the site has an historic population of GCN and also tested positive during the 2020 surveys.

Newts are unlikely to use the bare earth or road surface which dominates the site. However, as there is potential for GCN to commute across the site, amphibian exclusion fencing has been specified for the site boundary.

Use of the two settlement ponds and small duck pond adjacent the site entrance is unlikely due to limited vegetation growth along their edges and poor water. The eastern pond frequently dries out. However in time, there is potential for vegetation to establish within the western ponds and these could provide suitable habitat for GCN. This would be desirable as these ponds receive very little silt loading and hence would not need to be frequently dredged and this would provide additional habitat for this species. These ponds will therefore be outside of the exclusion fencing. Full survey, assessment and mitigation details are included within CH006 - Ecological Mitigation Plan.

4.2. Geology and Hydrology

The site is situated partially over superficial river terrace deposits. Beneath this, the bedrock is Limestone, with a fault running north to south in the east of the site separating the Black Rock Limestone Subgroup and the Gully Oolite Formation. This bedrock is classed as a principle aquifer and has been given the designation of SPZ1 (Source Protection Zone 1).

The site has a network of concrete lined open drains which carry runoff from the site into attenuation lagoons which are used to settle out suspended solids. The ponds are lined to prevent water ingress into the underlying soils. There is a single larger drain which runs through the centre of the site, discharging into the existing drainage of the MOD site. This drain only flows at times of high rainfall.

Please refer to CH006 - Preliminary Ground and Surface Water Risk Assessment and CH004 – Drainage Strategy, for further details.

5.0.Proposed Activities

Crownhill Topsoil's principal activity is the processing of inert construction excavation wastes to provide recycled topsoil and aggregates to the construction industry. They provide a

range of different quality soils, sands and aggregates to private and commercial customers.

The key aspects of the activities undertaken are:

- Sourcing and collecting aggregates;
- Assessment of sourced material;
- Inspection of sourced material for possible contaminants;
- Grading the soil and aggregate using a screen;
- Testing soils and aggregates produced;
- Storage of graded aggregates, soil;
- Loading and delivery of processed material to customers;

The table below outlines the Waste Codes for all materials intended to be processed under this activity:

Inert Construction and Demolition Waste processing into Topsoil and Recycled Aggregates

Table 2.3 Waste types accepted by Crownhill Topsoil and Aggregates

Exclusions

Wastes having any of the following characteristics shall not be accepted:

- **Consisting solely or mainly of dusts, powders or loose fibres**
- **Hazardous wastes**
- **Wastes in liquid form**

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
10 11	**wastes from manufacture of glass and glass products**
10 11 12	clean glass other than those mentioned in 10 11 11
10 12	**wastes from manufacture of ceramic goods, bricks, tiles and construction products**
10 12 08	waste ceramics, bricks, tiles and construction products(after thermal processing)
10 13	**wastes from manufacture of cement, lime and plaster products and articles and products made from them**
10 13 14	waste concrete only
15	**WASTE PACKAGING**
15 01	**packaging**
15 01 07	clean glass only
17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**
17 01	**concrete, bricks, tiles and ceramics**
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics

17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	**wood, glass and plastic**
17 02 02	clean glass only
17 03	**bituminous mixtures, coal tar and tarred products**
17 03 02	road base and road planings (other than those containing coal tar) only
19	**WASTES FROM WASTE MANAGEMENT FACILITIES, OFF SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION / INDUSTRIAL WASTE**
19 12	**wastes from the mechanical treatment of wastes**
19 12 05	clean glass only
19 12 09	minerals (for example sand, stones)
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 01	**separately collected fractions**
20 01 02	clean glass only
20 02	**garden and park wastes**
20 02 02	soil and stones

5.1 Process

Most of the raw materials for the process are construction and demolition wastes and excavated soils sourced through construction works. A key control in the process is a duty of care check on the site from which wastes are received. This includes a site inspection for indicators of contamination, a review of any ground investigation information for the site and additional ground investigation, sampling and testing if required.

Once a duty of care check has been undertaken and Crownhill are satisfied that materials are free from contamination, the materials are imported to the facility. Prior to tipping on site, a further visual inspection of the materials is undertaken. This looks for indicators of contamination including foreign objects, discolouration, odours, sheens on moisture within the materials. If contamination is suspected loads are rejected and returned to the consignor. If the materials have been tipped and contamination is subsequently identified, the material is removed to the quarantine building, where it is placed on polythene sheeting and where the drainage can be contained into a sealed system. It will be stored here for no more than 48 hours, while the consignor makes arrangements for collection and removal from site.

The sealed drainage system takes the form of a concrete slab which drains into two 1100l tanks. Valves have been installed to prevent rainwater entering these tanks during periods when the quarantine facility is not being used. Following a quarantine period, water within these tanks would be tested and it would be disposed by tanker, as required by the results of the testing.

Wastes are stored in managed stockpiles to a maximum volume of 40,000 tonnes at any one time. Wastes are sampled at a rate of 1 sample for every 1000t imported to site.

Sample locations are marked within stockpiles using a stake. Samples are analysed for metals, organics, TPH, PAH16 and asbestos. If samples identify elevated levels of contaminants, further testing is undertake around the original sample location to identify the extents of the contamination. Contaminated materials would be quarantined within the quarantine building pending disposal off site in line with the requirements of the waste assessment.

The processing of waste is undertaken in the open, with the majority of the products produced stored within buildings at the site.

Crushing and screening equipment is then used to grade and blend the materials to form the end products, which are stored in defined stockpiles. Topsoils are tested to BS5228 for Topsoil and to ensure compliance with the Specification of Highway Works.

This material will then be sold back into the construction industry, either collected from the facility by the client or delivered directly using Crownhills own fleet of vehicles.

6.0. Assessment

In support of this application, a number of technical assessments and reports have been prepared to demonstrate that the proposed activities will not give rise to unacceptable impact on human health and the environment.

6.1 Environmental Management System

This sets out the environmental controls required to ensure the facility is operated without detriment to the environment. This includes:

- A description of the operations undertaken at the facility;
- Roles and responsibilities for the Management Team;
- An extensive evaluation of the environmental aspects of the works;
- Procedures to be implemented to mitigate these environmental impacts, including a robust Duty of Care and Waste Acceptance process;
- Emergency Preparedness and Response Plan. This defines what constitutes an environmental incident and near miss and outlines actions to be taken in the event of an environmental incident.

6.2 Environmental Risk Assessment

An environmental risk assessment has also been prepared, which assesses the risks posed by the following hazards:

- Hydrogeology (groundwater);
- Hydrology (surface water);
- Particulate matter (dust);
- Mud (on roads);
- Odour;
- Noise and vibration; and
- Accidents and their consequences.

Mitigation for these risks is included within the Environmental Management System.

6.3 Site Specific Risk Assessment

A site specific risk assessment has been prepared to set out the risks posed to the environment and local human population, and outlines the measures undertaken to reduce these risks. This assessment uses the industry standard Source-Pathway-Receptor model.

6.4 Site Condition Report

The Site Condition Report reviews the history of the site and activities undertaken there. Much of the history of the site is unknown as it forms part of the Caerwent Army Training Base, but it is believed that it was previously used for the storage of vehicles and equipment. The facility is located on a concrete slab or within buildings but the condition report considers recent activities at the site, including the use of the site by Wormtech Ltd and the potential legacy effect of these.

7.0.Management

Operation of the site will be managed by Simon Stone and Peter Fowler, who are working towards a Level 4, Environmental Permitting Operators Competence, endorsed by the Chartered Institute of Waste Management. This is a competency certificate for operating a permitted waste and resources facility for "low risk" sites, e.g. inert waste transfer / treatment. Simon and Peter will be responsible for ensuring that all practices outlined in the Environmental Management System are adhered to by all on site personnel. They will also monitor the works to ensure that all relevant health and safety requirements and quality standards are met.

Crownhill have recently achieved the Safe Contractor accreditation and are in the process of applying for additional accreditation.

8.0.Conclusion

The studies undertaken as part of this application indicate that there is unlikely to be a significant environmental impact as a result of the waste management activities at Crownhill Topsoil and Aggregates site.

Key environmental risks are pollution of controlled water with suspended solids and hydrocarbons. Controls to minimise risks due to this have been put in place.

The site is underlain by a Source Protection Zone SPZ1 and it is therefore critical that no activities are undertaken which could impact this. All activities proposed for the site are low risk in terms of the aquifer i.e. the storage and processing of inert waste. Hydrocarbons will be stored at the site and robust controls have been put in place for the storage and use of these, to minimise the risks to the SPZ1 due to this.

Crownhill are fully committed to ensuring the highest standards are met and will undertake its activities in a manner consistent with best industrial practices and in accordance with the

company’s management systems.

9.0.Appendix A – Site Location Plan