



# ARCUS

An ERM Group Company

## APPENDIX 5.3

**RETFORD CIRCULAR ECONOMY PROJECT**

**APPENDIX 5.3 OUTLINE TECHNICAL CONSTRUCTION**

**ENVIRONMENTAL MANAGEMENT PLAN**

**LOUND HIVE LTD**

**FEBRUARY 2023**



# **1 INTRODUCTION**

## **1.1 BACKGROUND**

(OCEMP) for the Retford Circular Economy Project (the Proposed Development), comprising the extraction of PFA contained in former disposal lagoons, progressive restoration, processing and export.

The Proposed Development is not a 'traditional' construction and operational scheme in that the proposed works would be undertaken in Phases as outlined in Chapter 5 of the Environmental Statement (ES), with periodic/isolated phases of construction taking place from time to time. However, it is anticipated that the main construction works would take place in the first 12 months or so of the Proposed Development.

It follows that the environmental protection measures, as outlined in this OCEMP, would be applied for the duration of the Proposed Development's operation.

A copy of the ES would be kept alongside this OCEMP to cross reference as needed during the working life of the Proposed Development.

Separate Dust Management and Water Environmental Management Plans have been produced for the application, and are available at Appendix 13.8 and Appendix 9.1 respectively within Volume 3 of the ES.

## **1.2 PURPOSE AND SCOPE**

This OCEMP has been produced as part of the planning application for the Proposed Development, specifically, to set out environmental protection measures during construction and operation as relevant, and to help inform the preparation of a full Construction Environmental Management Plan (CEMP) at the detailed design stage.

This document takes into account activities to be undertaken during the construction and operational phase of the Proposed Development, including:

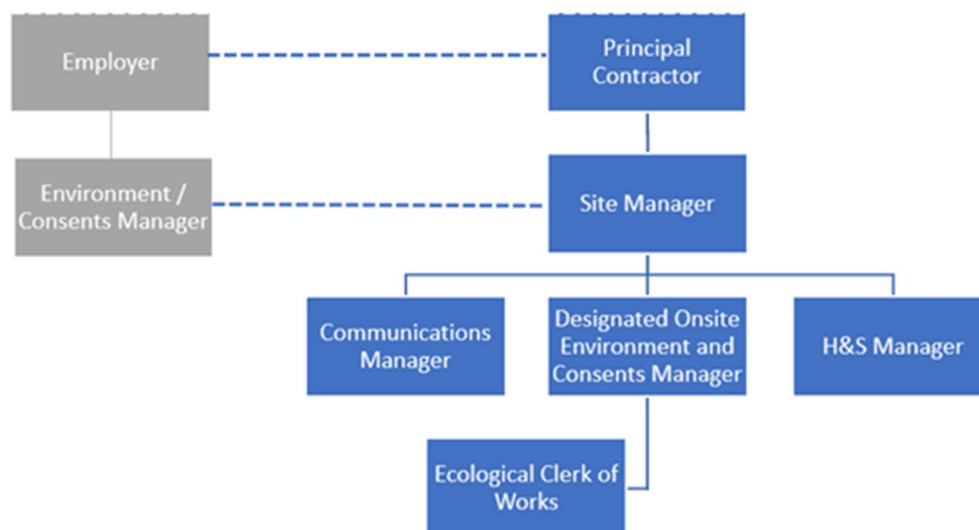
- Access tracks, conveyors and plant erection;
- Foundations required for the processing plant and other components; and
- Hardstanding areas and buildings.

The OCEMP presented in this document highlights measures that would be used across the Proposed Development site during construction activities to ameliorate potential impacts on environmental receptors. This is intended to be a 'live' document and should be updated with more detailed proposals for measures when further information becomes available.

The measures set out in this OCEMP are based on industry standards and best practice at the time of writing, driven by international and national legislation as well as national and local policy. In-line with this, the measures proposed are intended to be proportionate to the potential effect on environmental receptors with commensurately more robust measures proposed where greater effects are likely to occur.

## **1.3 ENVIRONMENTAL ROLES AND RESPONSIBILITIES**

Environmental roles and responsibilities vary between different stages of a project. Information regarding roles specific to the works can be found below.



#### 1.4 EMPLOYER

The Employer fulfils the role of the commercial client, and as such has oversight of all construction work packages. The Employer ensures that project requirements are properly implemented, controlled and effectively documented. It is the Employer's responsibility to ensure that suitable processes and resources are in place to ensure the Principal Contractor complies with the health, safety and environmental obligations.

#### 1.5 PRINCIPAL CONTRACTOR

The Principal Contractor has lead responsibility for practical construction of the Proposed Development, including the appointment of a competent Site Manager, Health and Safety (H&S) Manager and sub-contractors, agreeing and setting construction environmental targets with the Employer, and ensuring all activities are in compliance with the requirements of the Code of Construction Practice (CoCP), stage-specific CEMPs and other associated reports and appendices. This contractor would be deemed to be the Principal Contractor for the purposes of the Construction (Design and Management) Regulations 2015 (CDM Regulations).

#### 1.6 SITE MANAGER

the Proposed Development and would oversee all operational aspects of the construction programmes. The Site Manager would be required to familiarise themselves with the contents of this document and liaise with the H&S Manager in order to deliver appropriate environmental awareness and guidance to operatives. It would be important for the Site Manager to establish a system for dealing with enquiries or complaints from the public, local authorities, or statutory consultees. Any complaints that may arise would be logged, reported and addressed and complaint close-out reports would be produced and submitted.

## **1.7 H&S MANAGER**

The H&S Manager role is to oversee and enforce the implementation and adherence to all relevant health & safety provisions within the Site. This role would have overall responsibility for maintaining and updating H&S provisions, and be on site to advise, guide, support and promote awareness of the onsite requirements to all personnel. The H&S role would be filled by an appropriately qualified and experienced staff member of the Principal Contractor.

## **1.8 DESIGNATED ONSITE ENVIRONMENT AND CONSENTS MANAGER**

The client would appoint an appropriately competent person or persons (the Designated Onsite Environment and Consents Manager) to undertake relevant environmental tasks and supervision as detailed in this document, prior to, during and upon completion of the Works. Together with the Employer's Environment and Consents Manager, the Client and their designated Ecological Clerk of Works (ECoW) and Consents Manager would monitor and report CoCP and CEMP implementation through liaison with the H&S Manager, Site Manager, and other parties as appropriate.

## **1.9 ECOLOGICAL CLERK OF WORKS**

A suitably qualified and experienced ECoW would be appointed and would be responsible for providing advice about ecological issues and helping to ensure that the measures specified in the Ecological Management Plan (EcMP) are implemented correctly and in line with industry guidance.

## **1.10 SITE DESCRIPTION**

The Proposed Development is located on land to the south of Lound, Retford, in Nottinghamshire with an approximate centroid at National Grid Reference SK 69404 84864 (the Site).

It is proposed to extract Pulverised Fuel Ash (PFA) from former disposal lagoons, located approximately 780 m east of Lound, 1.1 km east of Sutton Cum Lound and 2 km north of the centre of Retford. The main section of the Site is comprised of former PFA disposal lagoons (or the 'Extraction Area') that have been re-instated for agricultural use (low quality grazing land). The area to the south of the former lagoons includes Bellmoor Industrial Estate, where the proposed 'Main Processing Site' would be located with a more detailed description of the Site, provided below.

The Site can be characterised as three connected areas:

- Area A: Main Operational Site
- Area B: Conveyor and Link Road
- Area C: Main Processing Site

A Site Area Plan, Figure 1.3 within Volume 2 of the ES confirms the boundaries of the site areas.

### **1.10.1 Development Overview**

The Proposed Development comprises extraction and export of PFA contained in former disposal lagoons at the Site and associated works. Associated works would include earthworks, dewatering and soil storage, ponds and excavations, hard surfacing, buildings and structures, plant, conveyors, utility connections, roadways, parking, drainage, and restoration including planting. Areas A to C, are described below:

*Area A – Main Operational Site*

The former ash lagoons site is raised with vegetated banks around its perimeter and largely comprises grassland for grazing, though this is of relatively poor quality. The area has historically been subject to a significant amount of sand and gravel extraction and is therefore not alien to extractive industries, with Areas B and C having been used until recently for the processing and export of won resources and remaining in industrial use to this day.

The area is split between 'Low-Rise' to the east (7.5 – 11 m AOD) and 'High-Rise' to the centre and west (17 – 19 m AOD). The Site is also well screened owing to a combination of topography and existing vegetation, including tree planting and hedgerows along its perimeter and woodland blocks and hedgerows in the surrounding area.

The area is relatively isolated, with the village of Lound located approximately 780 m to the north and the village of Sutton Cum Lound located approximately 1.1 km to the north west. The town of Retford is located approximately 2 km to the south. The closest residential properties comprise the farmhouse and two other properties associated with Sutton Grange Farm, located immediately to the north of the Site: Bellmoor Farm located approximately 100 m to the west; and two dwellings associated with the Wetlands Fishery on the opposite side of Lound Low Road to the north. There are no other known residential properties within 500 m at the time of conducting this application. Although this will be reviewed as part of any future environmental assessments that may be carried out for the planning application.

*Area B – Conveyor and Link Road (outside of Main Operational Site)*

The conveyor and link road pass south from the Main Operational Site to the Main Processing Site, utilising farmland, and avoiding a tree belt in this vicinity. There is also a soil store here.

*Area C – Main Processing Site*

Area C is accessed from the A638 via a dedicated priority turn junction and is in use for concrete manufacturing and other industrial uses. The site address belies its former use in association with sand and gravel extraction. It currently accommodates a number of industrial uses, including a stonemason and concrete batching plant, and is therefore in daily operational use. The A638 access is shared with the Idle Valley Nature Reserve visitor centre. Bellmoor Lake lies nearby to the east and beyond this is a sewage treatment works. The industrial areas along Randall Way in the northern part of Retford are located approximately 450 m to the south east of the Site. The east coast mainline railway passes by to the south at around 350 m at its nearest point. Table 1 below, shows the indicative working scheme:

**Table 1 Indicative Work Scheme**

Phase No.	Phase Description	Year	Size	Description
1a	Processing Site 1 Establishment	1	0.5 ha	<ul style="list-style-type: none"> <li>Establish processing site at around 13 m AOD by digging into embankment of HR Phase 1.</li> <li>Soils are put into a soil store in the conveyor corridor to the west in Area B.</li> <li>Sandstone from the embankment is stored to the west of HR P1.</li> </ul>
1b	HR Phase 1	1	8.2 ha	<ul style="list-style-type: none"> <li>Strip soil and put into store.</li> <li>Extract PFA.</li> </ul>

Phase No.	Phase Description	Year	Size	Description
				<ul style="list-style-type: none"> <li>• There is around 600k tonnes of PFA above water table here, meaning that this area could be exploited over the early years (1-3) of production while the filter ponds, soakaway, main conveyor and haul road are being built.</li> <li>• Note that the PFA below water table can only be extracted around Year 3 when the filter ponds and soakaway are established, if dewatering is required/proposed.</li> <li>• PFA transported to the Main Processing Site in the early years (1-2) by an interim conveyor and/or by vehicle.</li> <li>• The area is to be restored around Year 4 by using the embankments to fill the void and replacing stored soils.</li> </ul>
2a	Processing Site 2 Establishment	2	0.5 ha	<ul style="list-style-type: none"> <li>• Establish processing site at around 8.5 m AOD by digging into embankment of HR Phase 2. This would also include incline for haul road and conveyor.</li> <li>• Extracted sandstone and soils are stored to the north east.</li> <li>• At same time build next section main conveyor and haul road to Main Processing Site.</li> </ul>
2b	LR Phase 1 – Soakaway Ponds	3	4.0 ha	<ul style="list-style-type: none"> <li>• Strip soil and store around periphery of area or at soil store for later use in restoration.</li> <li>• Extract PFA and create around five ponds of sufficient depth.</li> <li>• The pond embankments are created using sandstone dug from base or elsewhere within the Site.</li> <li>• This is carried out whilst the remaining above water table PFA is extracted from HR Phase 1 in Year 3.</li> </ul>
3	LP Phase 2 – Filter Ponds	3	3.5 ha	<ul style="list-style-type: none"> <li>• Strip soil and store around periphery of area for later use in restoration or at soil store.</li> <li>• Extract PFA and dig down into sandstone bedrock to create around five ponds of sufficient depth.</li> <li>• The pond embankments are created using sandstone dug from base or elsewhere within the Site.</li> <li>• This is carried out whilst the remaining dry PFA is extracted from HR Phase 1 in Year 3.</li> </ul>
4	HR Phase 2	5	7.5 ha	<ul style="list-style-type: none"> <li>• Strip soil and store at the soil and overburden store.</li> </ul>

Phase No.	Phase Description	Year	Size	Description
				<ul style="list-style-type: none"> <li>• Extract PFA.</li> <li>• Retain lagoon embankments throughout extraction.</li> <li>• Use embankments, and stored soil and sandstone to fill void and restore.</li> </ul>
5	LR Phase 3	8	7.0 ha	<ul style="list-style-type: none"> <li>• Strip soil and use to finalise restoration of HR Phase 2.</li> <li>• Extract PFA.</li> <li>• The phase in then restored to a waterbody and grassland using available material.</li> </ul>
6	LR Phase 4	9	7.0 ha	<ul style="list-style-type: none"> <li>• Strip soil and use to finalise restoration of LR Phase 3.</li> <li>• Extract PFA.</li> <li>• The phase in then restored to a waterbody and grassland using available material.</li> </ul>
7	LR Phase 5	10	7.0 ha	<ul style="list-style-type: none"> <li>• Strip soil and use to finalise restoration of LR Phase 4.</li> <li>• Extract PFA.</li> <li>• The phase in then restored to a waterbody and grassland using available material.</li> </ul>
8	HR Phase 3	11	7.5 ha	<ul style="list-style-type: none"> <li>• Strip soil and use to finalise restoration of LR Phase 5.</li> <li>• Extract PFA.</li> <li>• The void is then filled using lagoon embankments.</li> </ul>
9	HR Phase 4	14	7.5 ha	<ul style="list-style-type: none"> <li>• Strip soil and use to finalise restoration of HR Phase 3.</li> <li>• Extract PFA.</li> <li>• The void is then filled using lagoon embankments.</li> <li>• Processing Site 2 is decommissioned. The next phase would use a new processing site.</li> </ul>
10a	Processing Site 3 Establishment	16	0.5 ha	<ul style="list-style-type: none"> <li>• Processing Site 3 is established at around 15 m AOD by digging a flat surface into the embankment between HR Phase 5 and 6.</li> <li>• The resulting soils and overburden are used in the restoration of HR Phase 4.</li> </ul>
10b	HR Phase 5	17	7.5 ha	<ul style="list-style-type: none"> <li>• Strip soil and use to finalise restoration of HR Phase 4</li> <li>• Extract PFA.</li> <li>• The void is then filled using lagoon embankments to the east and west.</li> <li>• The lagoon embankment between HR Phase 5 and HR Phase 6 is retained because it holds the haul road and</li> </ul>

Phase No.	Phase Description	Year	Size	Description
				conveyor and is needed for the restoration of HR Phase 6.
11a	HR Phase 6	20	7.5	<ul style="list-style-type: none"> <li>Strip soil and use to restore HR Phase 5.</li> <li>Extract PFA.</li> <li>The void is then filled using lagoon embankments, including the northern embankment bordering HR Phase 5.</li> <li>Processing Site 3 is decommissioned.</li> <li>Phase is restored using soils from storage around periphery of soakaway and filter ponds or elsewhere.</li> <li>Soils may be imported for this phase or others if necessary.</li> </ul>
11b	Restore LR Phase 1 – Soakaway Ponds & LP Phase 2 – Filter Ponds	22	n/a	<ul style="list-style-type: none"> <li>These areas required to be operational until the end of extraction to deal with drainage.</li> <li>Following completion of extraction they can be restored to waterbodies.</li> <li>This should be a simple process of recontouring and landscaping the filter ponds and soakaway into more aesthetically pleasing water bodies.</li> </ul>

It is notable that the construction works are rather limited as some of the required infrastructure already exists within Area C, due largely to the legacy of quarrying at the Site. This includes the existing highway access and cleared areas of existing hardstanding.

## 1.11 CONSTRUCTION PHASE ACTIVITIES

### 1.11.1 Temporary Infrastructure

#### 1.11.1.1 Temporary Construction Compounds

A temporary construction compound (TCC) would be required for the installation of the infrastructure that is to be located in Area C. This would be located on existing hardstanding at the Site.

Temporary cabins, to be used for site offices and welfare facilities are proposed. Welfare facilities would be installed as required by the Construction (Design and Management) Regulations 2015. It is proposed that power would be provided by connection to the local electricity network and/or a new combined heat and power plant, with backup/an alternative provided by a diesel generator(s) banded to 110% diesel capacity. Water for the welfare facilities would be provide by existing utility connections at Area C.

Similar TCCs may also be provided in Area A and Area B, as necessary.

If not located on existing hardstanding, any area to be used for a TCC would be stripped of topsoil to expose a suitable formation which would be stored for future re-instatement. A geosynthetic material base or similar would then be laid followed by a layer of suitable material then a further geosynthetic material laid prior to the top surface of blended fines.



TCCs would be required primarily in the first 6-12 months of the Proposed Development, to establish the main infrastructure required at the Site. However, the Applicant would need to progressively phase the provision of some infrastructure in accordance with the Site Phasing Plans provided in **Appendix 5.2**. Furthermore, the Applicant is proposing to initially operate a smaller scale optimisation plant in Area C before scaling up to full production. It would therefore be necessary to provide TCCs and carry out construction activities periodically over the lifetime of the Proposed Development to facilitate this.

Following completion of each construction phase any compounds would be removed and the area restored as necessary.

#### **1.11.1.2 Site Signage**

During construction, the Site would have suitable signage to protect the health and safety of workers, contractors and the general public. It is envisaged that there would be a sign giving the operator's name, the name of the Proposed Development and an emergency contact telephone number.

Once operational, there would be further signage, providing information about the Proposed Development, potential hazards, the operator's name, the location grid reference and the emergency telephone number. The final location and design of the signage would be defined prior to the Proposed Development becoming operational.

#### **1.11.2 Construction Timescale and Duration**

It is anticipated that initial construction activities at Area C would require approximately 6-12 months, which would then be followed by periodic stages construction to scale up to full production capacity.

#### **1.11.3 Construction Activities**

Construction activities would include, but are not limited to, the following:

- Delivery and installation of extraction and processing plant;
- Erection of buildings and other structures;
- Connection of utilities;
- Site drainage works;
- Laying of foundations, hardstanding and haul roads which will be done in two phases and also removed in two phases;
- Importation of all necessary construction materials, including engineering clay or similar for capping, void lining and drainage works as necessary;
- Earthworks and soil movements; and
- Any other necessary engineering and electrical works.

Further construction works in Areas A and B of the road and conveyor to allow the extraction, processing and export of PFA in Area A would be on a rolling basis in accordance with the extraction phases. These works include the provision of the Processing Areas (1-3), the haul road and conveyor in Area B, sections of haul road and conveyor in Area A, settlement and soakaway ponds, and all other infrastructure shown in the Site Phasing Plans (**Appendix 5.2**) and as described here.

The activities comprise those that are necessary to construct and operate the Proposed Development over its lifetime.

Construction activities would be confined to the hours of 07:00 to 19:00 on weekdays and 07:00 to 13:00 on Saturdays, with no working on Sundays or Bank Holidays. In some circumstances (for example concrete pouring), it may be necessary to work outside of these hours and, in these circumstances, permission would be sought from

Nottinghamshire County Council (NCC). It is anticipated that this mechanism is secured by a condition attached to any grant of planning permission.

Construction laydown areas for materials and the TCC(s) would be located within the boundary of the Site.

At normal times during construction there is anticipated to be no more than around 10 two-way Heavy Goods Vehicle (HGV) trips per average day (20 in total). There may be more when any concrete pouring is required.

### **1.12 OPERATIONAL PHASE ACTIVITIES**

Once operational, the Proposed Development would comprise the following main elements:

- Extraction;
- Screening;
- Processing; and
- Export by road.

There would be ancillary operations and infrastructure associated with all of the above.

#### **1.12.1 Part 1: Extraction**

Mobile excavators and/or motor scrapers (or similar) would be used to extract the PFA from the ground. Tipper trucks or similar would then transport extracted PFA to the relevant Processing Area (1-3, dependent on extraction phase), where the PFA would be temporarily stockpiled before screening.

The Processing Areas would move as extraction progresses through the Site, with three separate areas provided over the lifetime of the Proposed Development. Each Processing Area would be dug into the lagoon bank to provide for stability, each comprising a concrete pad or hardstanding. Each pad would cover an area of approximately 6,000 m<sup>2</sup>.

Soil would be removed from each phase prior to the extraction and stored appropriately within the Site for later re-use during restoration, or it would be immediately applied to part of the Site undergoing restoration. Topsoil would be stored and managed effectively within the Site for later re-use during the restoration. This would be in accordance with the Defra Soil Strategy for England and Construction Code of Practice for the Sustainable Use of Soils on Construction Sites<sup>1</sup>.

#### **1.12.2 Part 2: Screening and Shredding**

Mobile screening and shredding plant would be used to screen the PFA at the Processing Areas to the required grade by separating out lumps of material into smaller particles.

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<sup>1</sup> The Department for Environment, Food and Rural Affairs (2009). Safeguarding Our Soils. A Strategy for England. [online].

Available at:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69261/pb13297-soilstrategy-090910.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69261/pb13297-soilstrategy-090910.pdf) [Accessed: 15th August 2022]

<sup>3</sup> The Department for Environment, Food and Rural Affairs. (2009). Construction Code of Practice for the Sustainable Use of

Soils on Construction Sites. [online]. Available at: [Construction Code of Practice for the Sustainable Use of Soils on Construction](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69261/pb13297-soilstrategy-090910.pdf)

[Sites \(publishing.service.gov.uk\)](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69261/pb13297-soilstrategy-090910.pdf) [Accessed: 15th August 2022].

Oversized material would be processed by the screens until the required grade is achieved. The oversized material, if unable to be effectively screened, would be used beneficially in restoration of the Site to achieve the desired landform. For more compacted material, a shredder (forming part of the screen) would be required prior to screening.

### 1.12.3 Part 3: Processing

It is proposed that PFA would be transported from Area A to the Main Processing Site (Area C) by covered conveyor during normal operations. During the optimisation period at the start of operations (a 6–24-month period) it is proposed that PFA would be transported from Processing Area 1 using tipper trucks. There would also be the option to utilise vehicles to transport PFA from the Processing Areas at times when the conveyor is not available, e.g., during maintenance periods.

The key components of the Main Processing Site would include the following:

- Material storage buildings;
- Conveyors, including a gantry over the site access road;
- Drying modules (up to 10x individual modules), cyclones and storage silos;
- Internal access roads and hardstanding;
- Offices, canteen and laboratories – in a co-located area of containers or cabins;
- Combined heat and power (CHP) plant – providing power and heat for the drying plant and other components, along with possibly a connection to the local electricity distribution network;
- Gas tanks and delivery infrastructure, and/or a gas main connection;
- Staff car park;
- Yard and storage area; and
- Wheel wash and weighbridge.

The PFA would first be placed in the material storage building where it would be stockpiled, run through a further shredder and screen, as necessary, and periodically turned by an excavator (or similar) to further reduce moisture content. There may also be fans blowing air over the material and a heated floor, to further reduce moisture content.

Once moisture is shed to the required level (around 20%), the PFA would be loaded into a hopper by a mobile excavator or conveyor (within the building). The PFA would then be fed into a covered conveyor, which would feed into the drying plant (comprising up to 10x individual modules), which applies an innovative kinetic system that uses air to dry the PFA rather than significant amounts of heat.

The system includes six key stages, as follows:

- 1) Feed system - PFA is screw fed from the covered conveyor into the feed section on top of the drying module via a hopper;
- 2) Blower – an industrial blower is then used to blow PFA particles into the system;
- 3) Heat Exchanger – used to create an average temperature throughout the system of 85 degrees centigrade drawn from the CHP plant, which is the optimal condition to hold moisture which is sheared from PFA particles later in the process;
- 4) Drying Cartridges – the PFA is blown down pipes and through drying cartridges, which use air to shear moisture from the PFA particles;
- 5) Cyclones - these recover circa 97% of the dried material, delivering it on to the finished product storage silos; and
- 6) Filter – air, moisture and fines pass on to the filter; fines are dropped out for recovery and storage; air and moisture go to atmosphere, or the moisture is condensed.

The system comprises a low temperature, low pressure process, using up to 75% less energy to remove the same amount of moisture as a conventional thermal drier would and consequently generating up to 75% less carbon emissions to atmosphere as a result.

Temporary optimisation works would initially commence in Area C prior to the full processing infrastructure being implemented, with only a single drying module and reduced infrastructure in operation. The optimisation would be undertaken for a period of up to 24 months, but more likely 6 months.

The processing plant and other infrastructure is shown in the plans at **Appendix 5.3: Other Key Infrastructure**.

#### **1.12.4 Part 4: Export to Road**

PFA would be loaded into 30 tonne articulated powder tankers/sheeted wagons (hereafter referred to as 'HGVs') that would be filled using a closed pipework from the silos or straight from the enclosed material storage building. The HGVs would pass over a weighbridge on arrival and before departure from the Site and, if necessary, on departure a wheel wash and/or jet wash would be utilised to clean vehicles.

The washing of every vehicle is not likely to be required as other measures would be implemented to prevent HGVs becoming dirty, such as maintenance of clean road surfaces within the access areas. HGVs would not be allowed to leave the Site if they are found to be overweight or, on inspection, would distribute dirt/debris on the public highway. All vehicles would be covered/enclosed to prevent material falling onto the public highway or other areas.

The Main Processing Site (Area C) benefits from an existing highway access onto the A638, which previously served Bellmore Quarry. A designated route(s) for HGVs to reach the strategic road network (the A1) would be used, whereby during normal operation, all HGVs travelling from Area C would use the route north or south along the A638.

It is estimated that the export of PFA would generate around 37 HGV trips per day (37 in / 37 out). There would also be a requirement for other HGVs to access the Site, including for maintenance, import of engineering materials (e.g., clay), gas tanker deliveries etc. It anticipated that there would be up to 4 HGVs trips per hour (4 in / 4 out) in total.

#### **1.12.5 Operational Staff and Hours of Operation**

It is estimated that the Proposed Development would generate up to around 20-30 permanent jobs. The Proposed Development would include site offices and welfare facilities for operational staff.

The operating hours for extraction and HGV exports would be limited to the following:

- 07:00 and 19:00 Monday to Friday; and
- 07:00 to 13:00 Saturday, and
- No extraction activities or imports are proposed for Sundays or Bank Holidays.

The drying plant would operate 24 hours per day to allow for efficient running of the plant items and to process enough PFA to meet the operational tonnage of around 300,000 tonnes per annum. This operation would be completely enclosed, limited to the material storage building, drying plant and silos. There would be no HGV deliveries or exports under normal operations, and Area A and Area B of the Site would be closed.

Staffing levels would likely be reduced and limited to drying plant operation and maintenance, and security functions outside of the main operating hours.

### 1.13 RESTORATION PHASE ACTIVITIES

As noted previously, the extraction phase of the Proposed Development and associated infrastructure would require around 25 years, although longer is possible if, for example, there are unforeseen delays in extraction. The Proposed Development comprises a series of phases whereby restoration follows extraction activities.

Restoration activities include earthworks and soil movements to achieve any approved restoration landform, and seeding and planting to achieve the necessary habitats. The earthworks would require the same plant as used to extract PFA, with activities often happening concurrently.

The restoration scheme is biodiversity led and the indicative concept is shown in **Appendix 8.5** and detailed within the landscape and ecology chapters of this ES, **Chapters 7 and 8** respectively.

The restoration scheme would include reinstatement of some of the existing farming activities, including grazing of the Site and habitat management using sheep. The proposed habitats include wet grassland, species-rich grassland, reed beds, woodland, and water bodies. It is anticipated that there would be a significant improvement on the current habitats at the Site.

The Applicant is committed to delivering Biodiversity Net Gain (10%). The initial, outline metric has been applied to the restoration concept showing a figure of approximately 12.66% thereby giving a high level of confidence that policy compliant Biodiversity Net Gain is deliverable. The Applicant is likewise committed to an aftercare period of up to 30 years. It is envisaged that significantly more detail of the proposed restoration would be secured by planning conditions that require the phased submission of detailed plans for each phase.

## 2 LEGISLATION POLICY AND GUIDANCE

The legislation, policy and guidance set out in Table 2.1 below, has been considered in the production of this document. Should relevant legislation, policy or guidance change this section and the associated measures should be reviewed.

**Table 2.1: Legislation Policy and Guidance**

Legislation	
The Town and Country Planning Act (1990)	<a href="https://www.legislation.gov.uk/ukpga/1990/8/content">https://www.legislation.gov.uk/ukpga/1990/8/content</a>
The Planning Act 2008	<a href="https://www.legislation.gov.uk/ukpga/2008/29/content">https://www.legislation.gov.uk/ukpga/2008/29/content</a>
The Civic Amenities Act (1967)	<a href="#">The Civic Amenities Act 1967</a>
The Construction (Design and Management) Regulations 2015	<a href="http://www.legislation.gov.uk/uksi/2015/51/content/made">http://www.legislation.gov.uk/uksi/2015/51/content/made</a>
The Waste (England and Wales) Regulations 2011	<a href="http://www.legislation.gov.uk/uksi/2011/988/content/made">http://www.legislation.gov.uk/uksi/2011/988/content/made</a>
Water Resources Act 1991	<a href="https://www.legislation.gov.uk/ukpga/1991/57/content">https://www.legislation.gov.uk/ukpga/1991/57/content</a>

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017	<a href="https://www.legislation.gov.uk/ukxi/2017/407/contents/made">https://www.legislation.gov.uk/ukxi/2017/407/contents/made</a>
Control of Pollution Act 1974	<a href="https://www.legislation.gov.uk/ukpga/1974/40">https://www.legislation.gov.uk/ukpga/1974/40</a>
Hazardous Waste (England and Wales) Regulations 2005 (as amended)	<a href="https://www.legislation.gov.uk/ukxi/2005/894/contents/made">https://www.legislation.gov.uk/ukxi/2005/894/contents/made</a>
Waste Framework Directive 2008/98/EC	<a href="http://ec.europa.eu/environment/waste/framework/">http://ec.europa.eu/environment/waste/framework/</a>
The Conservation of Habitats and Species Regulations 2010	<a href="http://www.legislation.gov.uk/ukxi/2010/490/contents/made">http://www.legislation.gov.uk/ukxi/2010/490/contents/made</a>
Wildlife and Countryside Act 1981 (as amended)	<a href="https://www.legislation.gov.uk/ukpga/1981/69">https://www.legislation.gov.uk/ukpga/1981/69</a>
The Natural Environment and Rural Communities Act 2006	<a href="https://www.legislation.gov.uk/ukpga/2006/16/contents">https://www.legislation.gov.uk/ukpga/2006/16/contents</a>
The Environment Act (England) 2021	<a href="https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted">https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted</a>
The Health and Safety at Work Act 1974	<a href="https://www.legislation.gov.uk/ukpga/1974/37/contents">https://www.legislation.gov.uk/ukpga/1974/37/contents</a>
The Health and Safety at Work Regulations 1999	<a href="https://www.legislation.gov.uk/ukxi/1999/3242/contents/made">https://www.legislation.gov.uk/ukxi/1999/3242/contents/made</a>
Control of Substances Hazardous to Health (COSHH) (2002)	<a href="http://www.hse.gov.uk/nanotechnology/coshh.htm">http://www.hse.gov.uk/nanotechnology/coshh.htm</a>
<b>Policy</b>	
National Planning Policy Framework	<a href="https://www.gov.uk/guidance/national-planning-policy-framework">https://www.gov.uk/guidance/national-planning-policy-framework</a>
<b>Guidance</b>	
CIRIA (2009) Unexploded Ordnance (UXO) A Guide for the Construction Industry C68	<a href="https://www.ciria.org/ItemDetail?iProductcode=C681&amp;Category=BOOK">https://www.ciria.org/ItemDetail?iProductcode=C681&amp;Category=BOOK</a>
The Construction Industry Research and Information Association (CIRIA), (2015), Environmental Good Practice on Site Guide (C741)	<a href="https://www.ciria.org/ProductExcerpts/tbyb_c741.aspx">https://www.ciria.org/ProductExcerpts/tbyb_c741.aspx</a>
CIRIA, (2001), Control of Water Pollution from Construction Sites (C532)	<a href="https://www.ciria.org/CIRIA/ProductExcerpts/C532.aspx">https://www.ciria.org/CIRIA/ProductExcerpts/C532.aspx</a>
The SuDS Manual (2015)	<a href="https://www.ciria.org/ItemDetail?iProductCode=C753F&amp;Category=FREEPUBS">https://www.ciria.org/ItemDetail?iProductCode=C753F&amp;Category=FREEPUBS</a>

## 3 ENVIRONMENTAL MEASURES

### 3.1 INTRODUCTION

Appropriate measures have been identified to manage potential effects on the receiving environment that may arise as a result of the construction phase and throughout the operation of the Proposed Development. These have been outlined in Table 3.1 Environmental Measures.

These measures have been separated out by topic area with each measure aligned against the potential effect it was intended to mitigate and the receptor the effect would otherwise have impacted.

### **3.2 PUBLIC LIAISON, GENERAL ENQUIRIES AND COMPLAINTS**

In line with best practice at the time of writing, the following approach to communication would be adopted.

The Principal Contractor would have in place a plan covering community liaison, enquiries and complaints. Measures that would be adopted by the Principal Contractor as part of the construction of the Works include:

- The Site Manager would establish a system for dealing with enquiries or complaints from the public, local authorities or statutory consultees;
- An information board containing contact names, telephone numbers and addresses, and the helpline number at appropriate locations on the boundaries of the Site will be in place to inform the local community;
- Prior to commencing main construction activities, occupiers of premises in the vicinity of the Works would be notified by the Principal Contractor of the nature of the works, access restrictions, and provided with contact details to which any enquiries should be directed; and
- Any complaints that may arise would be logged, reported and addressed. The system would include measures to keep all relevant parties informed about the progress of complaints.

During construction, any external enquiries or complaints relating to an environmental and consents matter should be reported to the Principal Contractor's Communications Manager, as well as the Environmental/Consents Manager, Ecological Clerk of Works (ECoW) and the H&S Manager.

The Communications Manager would then work with the on-site team to investigate, address and respond to the complaint accordingly. Environmental complaints would be recorded on the Principal Contractor's HSE system in accordance with HSE management procedures.

Records of complaints would be regularly monitored by the Principal Contractor and Employer to check that an appropriate and timely response has been made, and to identify emergent trends which may require further investigation. Roles and responsibilities are defined further in Section 1.3 of this document.

### **3.3 ENVIRONMENTAL INCIDENT RESPONSE**

Should, despite the measures outlined in Table 3.1 Environmental Measures, an environmental incident occur, the following steps of notification would be taken. This will be included within the initial site induction for all operatives, by the appointed Principal Contractor:

- Any operative witnessing an incident must immediately report the incident to their designated Site Manager & H&S Manager; and
- Following this, the Site Manager/Assistant Site Manager should implement remedial measures and notify the Applicant's Project Manager.

For a spillage, in addition to the above:

- If a spill has reached a surface water drain or watercourse, or soaked away in open ground, the Site Manager/Assistant Site Manager would contact the Environment Agency immediately on the 24hr helpline; and

- If incidents do not fall into any precise category, and if there is any doubt, the Environment Agency would always be contacted through the Site Manager/Assistant Site Manager.



**Table 3.1 Environmental Measures**

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
<b>General</b>		
All	Increase in general disturbance resulting in a change in the receiving environment	<p><b>Core working hours:</b></p> <p>Construction activities would be conducted during the hours of 07:00 to 19:00 on weekdays and 07:00 to 13:00 on Saturdays, with no working on Sundays or Bank Holidays. In some circumstances (for example concrete pouring), it may be necessary to work outside of these hours and, in these circumstances, permission would be sought from NCC. It is anticipated that this mechanism be secured by a condition attached to any grant of planning permission.</p> <p>Construction laydown areas for materials and the construction site compound(s) would be located within the Site.</p> <p>At normal times during the construction phase, there is anticipated to be no more than around 10 two-way Heavy Goods Vehicle (HGV) trips per average day (20 in total).</p>
Anthropogenic and ecological	Increase in light disturbance affecting normal routine or use of environment	<p><b>Control of artificial lighting:</b></p> <p>The use of artificial lighting would be required for security lighting, periods of reduced daylight, such as winter months, to supplement the availability of natural daylight and to safely meet the working hours outlined above.</p> <p>The majority of work would be undertaken during natural daylight hours, however, where artificial lighting is required, it would comply with the following specifications.</p> <ul style="list-style-type: none"> <li>• Lighting would be kept to a minimum required for safe working;</li> <li>• Use of motion-sensitive security lighting and avoid where possible the use of floodlighting;</li> <li>• Lighting would be directionally controlled and directed away from sensitive receptors;</li> <li>• Lights would be fitted with 'hoods' or similar to control light spill beyond the horizontal plane; and</li> <li>• Avoid lighting with ultra-violet (UV) components in areas where lighting is required for public safety</li> </ul>

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		<p>purposes as UV light can be disruptive to bat behaviour.</p>
<p>Anthropogenic and ecological</p>	<p>Pollution events associated with the use of plant, site vehicles or chemicals leading to adverse effects on local, sensitive receptors</p>	<p><b>Best Practice Construction Methods:</b></p> <p>During construction and operation, best practice methodologies would be deployed across site to minimise the potential for negative effects.</p> <p>These measures would be refined further once the detailed design is known and would be recorded in a Construction Environmental Management Plan (CEMP), which is a live document. In relation to general pollution prevention the following measures would be included, as a minimum:</p> <ul style="list-style-type: none"> <li>• Provide sufficient Bunding of fuel storage (110% of content capacity) or COSHH items to limit dispersal of spills or construction materials;</li> <li>• Maintenance of vehicles, plant and other site equipment to reduce spills;</li> <li>• Use of 'plant nappies', 'drip trays' or similar to manage point source pollution;</li> <li>• Use of wheel wash facility and or a jet-wash water bowser to manage and remove material arising's or other substances from vehicle wheels;</li> <li>• Storage of fuels and other chemicals in appropriate containers within secure locations such as construction compounds; and</li> <li>• Appropriate spill kits kept in accessible locations on site.</li> </ul>
<p><b><i>Air Quality – Refer to Appendix 13.5 Dust Management Plan for further specific dust measures</i></b></p>		
<p>Anthropogenic and ecological</p>	<p>Generation of emissions leading to localised effects on air quality</p>	<p><b>Pre-Processing</b></p> <ul style="list-style-type: none"> <li>• Pre-processing areas located &gt;250 m from any residential receptors ;</li> <li>• Finley Screen supplied with canvas dust covers on mains and fines conveyor ;</li> <li>• Constructed hard standing area of up to around 6,000 m<sup>2</sup> ;</li> <li>• 3-sided bays for storage and turning of PFA ; and</li> <li>• No stockpiles of PFA to remain at the end of each working day.</li> </ul> <p><b>Main Processing Area</b></p> <ul style="list-style-type: none"> <li>• Hard paved to allow surface to be swept and effectively watered;</li> <li>• Designated Collection Area;</li> </ul>

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		<ul style="list-style-type: none"> <li>• Enclosed material storage building, kept under negative pressure with extraction system installed with appropriate filters;</li> <li>• All processing plant fully enclosed, with the exhaust from the dryers passing through cyclone and fabric filters prior to release to atmosphere; and</li> <li>• PFA transfer fully enclosed via covered conveyors / piping.</li> </ul> <p><b>Material Transfer</b></p> <ul style="list-style-type: none"> <li>• Transfer of PFA done by fully covered conveyor under normal operations (with exception of Phase 1).</li> </ul> <p><b>General</b></p> <ul style="list-style-type: none"> <li>• Water availability at all times on site with a dust suppression system utilising a tractor and bowser for all internal roads, stockpiles and surfaces, where practicable.</li> </ul> <p><b>Soil and Overburden Storage</b></p> <ul style="list-style-type: none"> <li>• Designated areas on site;</li> <li>• Graded and vegetated upon earliest opportunity; and</li> <li>• On-Site Transportation.</li> </ul> <p><b>Off-Site Transportation</b></p> <ul style="list-style-type: none"> <li>• All vehicles exiting site to utilise wheel wash located adjacent to weighbridge;</li> <li>• &gt;400 m of hard paved access road between wheel wash and local road network;</li> <li>• No road-bound vehicles to access unpaved roads on site (i.e., areas north of the main processing site);</li> <li>• All material transferred off site contained either by powder tankers or sheeted wagons ; and</li> <li>• Road sweeper on site for use on local road network, access road and main processing area, as required.</li> </ul>
<b>Contaminated Land</b>		
Site personnel, general public and ecological receptors	Excavation of contaminated material leading to health impacts to human and ecological receptors	<p><b>Site-Specific Risk Assessment:</b></p> <p>During the construction/operational phase there is the potential for on-Site construction workers to be exposed to PFA during its extraction and processing. Whilst PFA is classed as non-hazardous, it contains chemical constituents that may pose an exposure risk if not properly handled and managed to ensure that such exposure is controlled and mitigated.</p>

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		<p>A site-specific contamination risk assessment would be undertaken prior to construction to identify specific remediation measures, should they be needed, in-line with the detailed design. Additionally, site staff would adopt a 'maintained vigilance' approach to working. Whilst no 'other' contamination is known to be present within the PFA, a Discovery Strategy is to be implemented and a contingency plan prepared for dealing with such unexpected material should it be encountered. Workers are to be competent in asbestos awareness and know how to manage potential asbestos should it be encountered.</p> <p><b>Management of arisings:</b></p> <p>In the event of mud, sediment and other material arisings as a result of the construction process, these would be managed to minimise the potential for negative interactions with human and ecological resources.</p> <p>As a minimum the following would be undertaken, with further management activities defined in the updated CEMP once it is available:</p> <ul style="list-style-type: none"> <li>• Arisings would be stored in a tidy manner with bunding or other containment where appropriate;</li> <li>• Arisings would be stored away from areas where the public may come into contact with them;</li> <li>• Arisings would be damped down as needed during periods of dry weather etc;</li> <li>• Arisings would be stored away from identified sensitive ecological receptors;</li> <li>• Arisings would be re-used/redistributed on site, where appropriate, or transported away from site in-line with current best practice methodology; and</li> <li>• Arisings would be segregated and stored into designated stockpiles in like-for-like material and a material stockpile and volumetric tracking methodology/system implemented to allow a clearly documented audit trail of material movement and placement.</li> </ul>
Surface water bodies Also refer to Appendix 9.1 WEMP	Contamination of and transport via surface water bodies leading to impacts	<p><b>Site-Specific Risk Assessment:</b> There would be potential contaminant migration pathways via surface water</p>

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
	<p>on water quality and dispersal to receptors in the wider environment.</p>	<p>drainage. However, given the regulated and controlled nature of the proposed activities on Site via health and safety working practices, permitting and planning requirements, it is concluded that controlled water exposure pathways would be well controlled and mitigated as part of the operational design and subsequent scheme implementation.</p> <p>Additionally, site staff would adopt a 'maintained vigilance' approach to working.</p> <p><b>Management of arisings:</b> Arisings generated as a result of the construction process would be managed to minimise the potential for negative interactions with water bodies.</p> <p>As a minimum, the following would be undertaken, with further management activities defined in the updated CEMP once it is available.</p> <ul style="list-style-type: none"> <li>• Arisings would be stored at a stable batter with bunding or other containment where appropriate;</li> <li>• Arisings would be damped down as needed during periods of dry weather etc;</li> <li>• Major earthworks would not be undertaken during adverse weather;</li> <li>• Arisings would be stored away from surface water bodies and flood zones, in locations with no clear pathway for arisings to enter water bodies;</li> <li>• Appropriate pollution prevention measures would be implemented to manage site run-off, capturing sediment before it can be discharged to the wider environment; and</li> <li>• Arisings would be re-used/redistributed on site, where appropriate, or transported away from site in-line with current best practice methodology.</li> </ul>
<p>Site personnel</p>	<p>Release of ground generating gasses leading to health impacts for site staff and risk of explosion</p>	<p><b>Site-Specific Risk Assessment:</b> There is no indication of the presence of 'other' buried waste in the PFA that could result in the presence of vapours or ground gases, and therefore exposure risk via this route is considered to be a relatively low risk.</p> <p>However, a site-specific contamination risk assessment would be undertaken prior to construction to identify specific remediation measures, should they be</p>

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		needed, in-line with the detailed design. Additionally, site staff would adopt a 'maintained vigilance' approach to working. Should it be necessary, site staff would wear appropriate PPE.
<b>Ecology and Biodiversity</b>		
Habitats/vegetative assemblages	Potential destruction or damage to habitats on site and adjacent to Site leading to loss of habitat, species and biodiversity	<p><b>Biodiversity Net-Gain:</b> A Biodiversity Net-Gain assessment has been undertaken by Arcus Consulting. Through the incorporation of habitat creation and enhancement that has been submitted with this application, it has shown that there would be an increase of habitat units on-site of at least 10%, which would be achieved at the end of the completed restoration works and be reviewed in conjunction with progress of construction.</p> <p>The longevity of the Proposed Development means the assessed baseline condition is likely to change during the duration of the works, which presents challenges in ensuring appropriate mitigation and to safeguard ecological features and ensure legal compliance is maintained.</p> <p>Monitoring surveys utilising baseline survey results and desk study information are not exhaustive, therefore potential further mitigation and licensing requirements would be subjected to provide for: bats, great crested newt, badger, reptiles, water vole, otter and invertebrates. All of which either are currently present or have the potential to be present on the Site during the lifetime of the Proposed Development.</p> <p>For further information on Ecology Monitoring and Mitigation please refer to Technical Appendix 8.6.</p>
<b>Landscape and Visual Impact</b>		
Adjacent receptors	Increased vehicle presence, construction lighting and other construction activities leading to increased visual intrusion for receptors	<p><b>Site Specific Measures:</b> Measures to avoid or reduce potential effects on landscape and visual receptors have been incorporated into the design of the Proposed Development.</p> <p>Specific site measures to reduce construction impacts on receptors in the receiving environment would be employed. These measures would be refined once the detailed design is known, however, they would include:</p> <ul style="list-style-type: none"> <li>• All trees and vegetation to be retained would be appropriately</li> </ul>

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		<p>protected both during construction and during operational use;</p> <ul style="list-style-type: none"> <li>• Trees to be removed would be minimised and replacement planting would be implemented the first planting season after the removal of trees to facilitate access;</li> <li>• Abide by specified working hours;</li> <li>• Material arising's to be stored away from sensitive receptors</li> <li>• Use of directional lighting and evade the use of flood lighting and or directing artificial lighting upon surrounding sensitive receptors;</li> <li>• Lagoon embankments retained in each phase during extraction; and</li> <li>• Provision of a Construction Traffic Management Plan.</li> </ul>
Residents and road users	Changes in visibility of Site, including increased vehicle presence, lighting, and other construction/operational activities, from nearby residential receptors	<p><b>Site Specific Measures:</b> Would be employed to manage the potential impacts on receptors in the receiving environment. These measures would be refined once the detailed design is known, however, they would include:</p> <ul style="list-style-type: none"> <li>• Materials and arisings would be stored away from sensitive receptors as far as possible; and</li> <li>• Use of directional lighting and evade the use of flood lighting and or directing artificial lighting upon surrounding sensitive receptors.</li> </ul>
<b>Noise and Vibration</b>		
Nearby Anthropogenic and ecological receptors	Increase in disturbance through noise leading to a disruption of normal activity	<p><b>Site Specific Measures:</b> Site specific measures would be employed to manage the potential for negative impacts on receptors. These measures would be refined at the detailed design stage but will include:</p> <ul style="list-style-type: none"> <li>• Static plant would be located away from sensitive receptors where possible;</li> <li>• When not in use the plant would be switched off;</li> <li>• Mechanical plant would be fitted with effective exhaust silencers and would be maintained in good efficient order;</li> <li>• All ancillary plant such as generators and pumps would be positioned so as to cause minimum noise disturbance, and where necessary, acoustic enclosures would be provided;</li> <li>• Loading and drop-off heights would be minimised</li> </ul>

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		<ul style="list-style-type: none"> <li>Reversing would be minimised – reducing the use of reversing sirens;</li> <li>Where practicable, the use of noisy plant would be limited to core daytime periods;</li> <li>Channels of communication would be established between the contractor / developer, Local Planning Authority and residents; and</li> <li>A Site representative would be appointed who would be responsible for matters relating to noise.</li> </ul>
<b>Transport and Access</b>		
Road users	Increase in baseline vehicle numbers and temporary construction traffic	<p><b>Construction Traffic Management Plan:</b></p> <p>A Construction Traffic Management Plan would be reviewed and maintained to ensure specific measures to manage site traffic. Specific measures would include:</p> <ul style="list-style-type: none"> <li>Minimising vehicle movements;</li> <li>Provision of appropriate parking facilities for site vehicles, reverse only policy and located away from sensitive receptors;</li> <li>Use of a one-way system for vehicles onsite or other traffic control measures; and</li> <li>Schedule and communicate with all delivery vehicles on the designated and approved route to site and avoid where possible, the scheduling of HGVs to arrive onsite during school commuting hours (08:00-09:00 &amp; 15:00-16:00).</li> </ul>
Pedestrians	Increase in traffic volumes leading to negative interactions with members of the public	<p><b>Construction Traffic Management Plan:</b></p> <p>A Construction Traffic Management Plan would be produced detailing specific measures to manage site traffic. Specific measures would include:</p> <ul style="list-style-type: none"> <li>Pedestrians and site traffic to be segregated at all times through the use of barriers etc;</li> <li>Provision of walkways and crossings where appropriate;</li> <li>Ensure clear visibility on roads, especially at junctions;</li> <li>Provision of appropriate turning heads or one-way systems; and</li> <li>Deployment of appropriate signage indicating public rights of way and safe areas for pedestrians where appropriate.</li> </ul>



Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
<b>Water Environment</b>		
Anthropogenic and ecological receptors	Construction activities lead to increased surface water flows resulting in an increased flood risk for sensitive receptors on and off-site	<p>Prior to construction a detailed condition survey of the existing drainage system, including the septic tank, would be undertaken to determine their suitability for the Proposed Development.</p> <p>This would include estimating the likely discharge quantities to ensure there is sufficient capacity in the current system and where necessary upgrading the outfall structures to the unnamed tributary of the River Idle.</p> <p><b>Management of Excavated PFA</b></p> <p>The following preventative measures would be implemented to control erosion and sediment runoff from stockpiles throughout the operation of the Proposed Development:</p> <ul style="list-style-type: none"> <li>• Material would be stockpiled for as short a time as practicable;</li> <li>• Exposed ground would be open for as short a time as practicable with the area excavated and restored progressively in phases to ensure this;</li> <li>• All stockpiled and bunded material would be stored at least 20 m from any artificial drains and waterbodies to reduce wash-off of sediments; and</li> <li>• If runoff of sediment is observed onsite silt fences and/or mats would be employed.</li> </ul> <p><b>Spill Response Plan (SRP)</b></p> <p>Once the sources of potential spills and leaks and the resources at potential risk have been identified, the detailed SRP would set out specific protective and management measures for the different sources. These measures would specify such matter as:</p> <ul style="list-style-type: none"> <li>• Specifications for reception and storage facilities (e.g. tank size, base material, bunding capacity, secondary containment);</li> <li>• Potentially contaminating chemicals stored on site should be kept within a secure bunded area to prevent any accidental spills from affecting hydrological resources. Construction compounds would have a bunded area underlain by impermeable ground membrane layer;</li> <li>• Bunded areas would have 110% capacity to attenuate stored liquids;</li> </ul>

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		<ul style="list-style-type: none"> <li>• Procedures for use of potentially hazardous materials;</li> <li>• Separation distances between hazards and vulnerable receptors;</li> <li>• Procedures for working near vulnerable receptors when this cannot be avoided; and</li> <li>• Training of personnel on SRP and other good practice measures as required.</li> </ul>
<b>Waste</b>		
All	Construction activities lead to generation of construction waste which negatively impacts on and off-site receptors	<p><b>Best Practice Construction Methods:</b> The Site would comply, where possible, with the waste hierarchy in the management of waste arising(s) due to construction activities. The hierarchy stipulates elimination, reduction, re-use, recycling and finally disposal. The detailed design would inform more detailed, site-specific measures however it is anticipated that these measures would include:</p> <ul style="list-style-type: none"> <li>• Identification of types of waste that might be generated and responsibility for management;</li> <li>• Implementation of waste minimisation strategies;</li> <li>• Implementation of re-use and recycling strategies;</li> <li>• Set-up of waste disposal facilities; and</li> <li>• Monitoring, auditing and reporting of waste on site.</li> </ul>

### **3.4 NEAR MISSES**

Where observed, environmental 'near misses' would also be reported, i.e. situations or occurrences that could potentially lead/contribute to an environmental incident in slightly different circumstances e.g. no drip tray below plant when refuelling, or inappropriately stored oils/chemicals. These would be logged by the Site Manager and reviewed by the Applicant's PM.

An outline Site Waste Management Plan and Outline Incident Response Plan are included in Appendices B and C of this OCEMP Full details of the responses to incidents are included in the Outline Incident Response Plan.

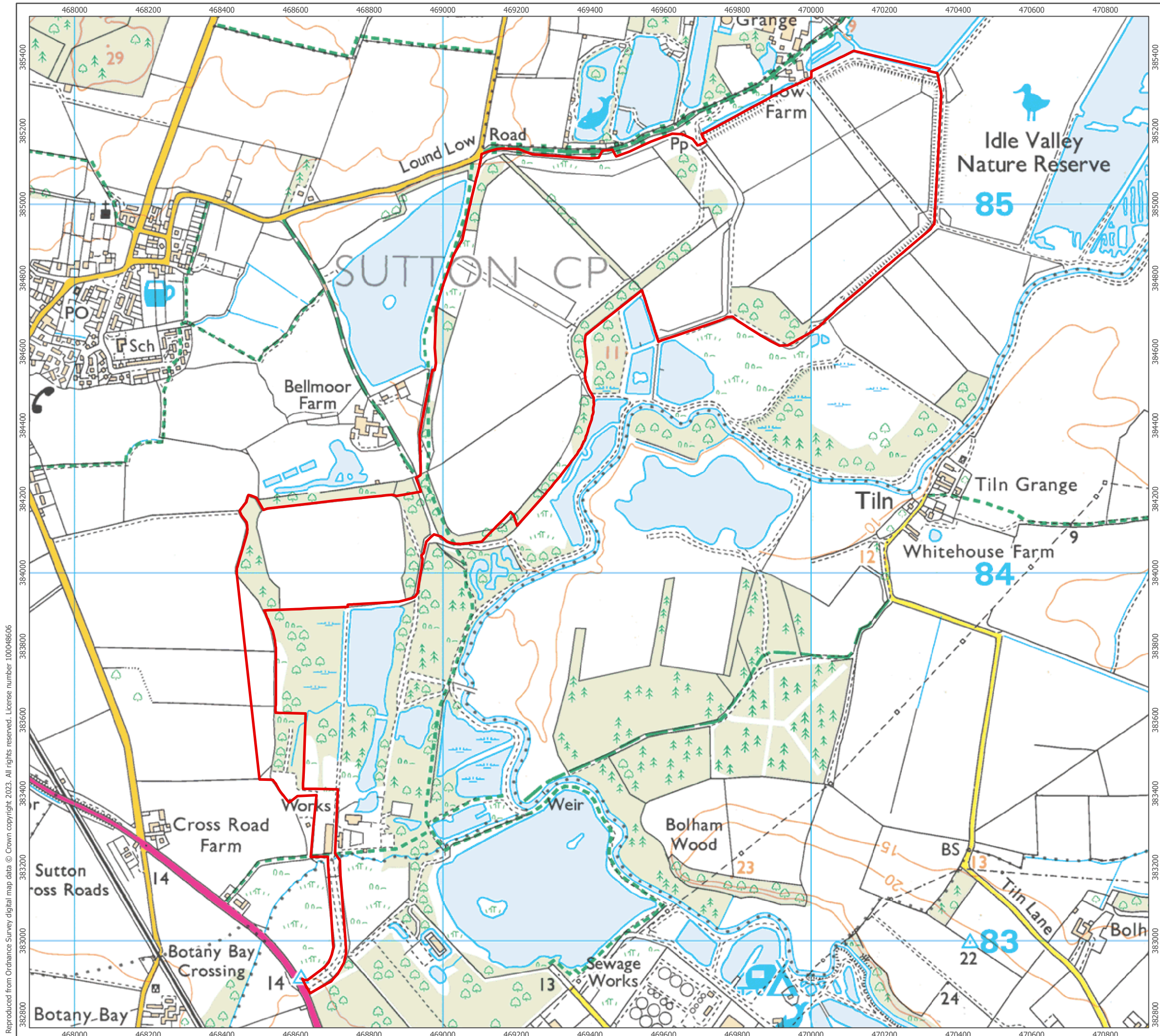
## **4 DECOMMISSIONING**

A Decommissioning Plan would be provided prior to the commencement of decommissioning.

Decommissioning activities would be undertaken in accordance with best practice at the time, and agreed with the relevant consultees in advance of the works commencing.

## **ANNEX A**

### **SITE LOCATION PLAN**



Site Boundary

1:10,000 Scale @ A3

0 250 500 m NORTH

Produced By: HG	Ref: 4092-REP-072
Checked By: EB	Date: 02/03/2023

**Site Location Plan**  
Figure 1.1

**Retford Circular Economy Project**  
**Environmental Statement**

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## **ANNEX B**

# **OUTLINE SITE WASTE MANAGEMENT PLAN**



# 1 OUTLINE SITE WASTE MANAGEMENT PLAN

## 1.1 INTRODUCTION

This Outline Site Waste Management Plan (SWMP) is submitted as part of a planning application for the Retford Circular Economy Project (the Proposed Development), comprising the extraction of PFA contained in former disposal lagoons, progressive restoration, processing and export.

The aim of this Outline SWMP is to protect the environment through implementation of effective management plans which relate to the management of waste throughout the life cycle of the Proposed Development.

Prior to construction of the Proposed Development, the Contractor would update this Outline SWMP to ensure it is a suitably detailed document. The Contractor will take ownership of the Detailed SWMP and would adhere to the principles presented within it.

The Detailed SWMP is a key tool which would be used to plan, implement, monitor and review waste minimisation and management during the construction, operation and decommissioning phases of the Proposed Development.

This Outline SWMP provides guidelines and details of the minimum requirements which the Contractor should include in their detailed SWMP. The Detailed SWMP would be put in place by the appointed Contractor prior to commencement of the construction phase of the Proposed Development and would be implemented in conjunction with the Construction Environmental Management Plan (CEMP) to ensure potential environmental effects on-site are reduced as appropriate.

The expectation is that the majority of PFA extracted would be processed and removed off site, so waste generation is anticipated to be minimal. A small volume of waste would be generated from the screening process. This waste is likely to comprise inert, uncontaminated material which is likely to be beneficially incorporated within the restoration of the site.

At this stage, the exact quantities and types of waste are unknown. It is expected that they could include:

- Excavated material;
- Welfare facility waste;
- Packaging;
- Waste chemicals, fuels and oils;
- Waste metals;
- Waste water from dewatering;
- Waste water from cleaning activities; and
- General construction waste (paper, wood, etc.).

Any import, export (not anticipated) and reuse of material generated onsite would be undertaken in line with the requirements of the CL:AIRE Definition of Waste: Development Industry Code of Practice (version 2)<sup>2</sup>. As such, this Outline SWMP considers only the management of the waste arising from other imported construction materials.

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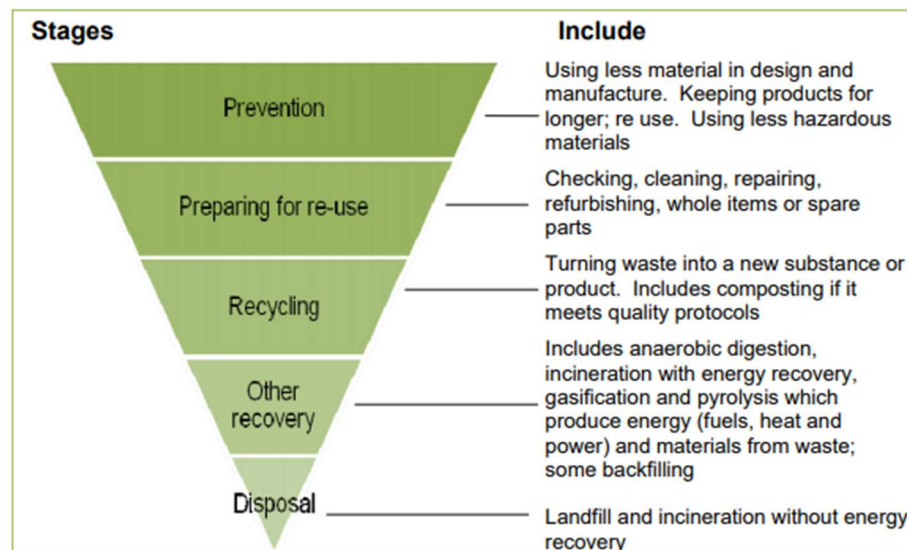
<sup>2</sup> Contaminated Land: Applications in Real Environments (2011): The Definition of Waste: Development Industry Code of Practice (Version 2)

## 1.2 THE WASTE HIERARCHY

The 'Waste Hierarchy' provides an outline approach of how waste management should be assessed within the Outline SWMP. The Waste (England and Wales) Regulations 2011<sup>3</sup> place a duty on all persons who produce, keep or manage waste to apply the 'Waste Hierarchy' in order to minimise waste production at every stage of the Development.

The 'Waste Hierarchy' promotes selection of the Best Practicable Environmental Option (BPEO) and preferred option for management of waste.

**Waste Hierarchy Diagram** <sup>4</sup>



The core waste management principles of reduce, reuse, recycle, recover and disposal as defined in the 'Waste Hierarchy', are embedded within this Outline SWMP.

### 1.2.1 Waste Prevention

Minimisation of waste generation is achieved through careful design and creating a 'waste aware' culture on-site. All reasonable actions would be taken by the Contractor to avoid the production of and/or minimise the volume of waste produced as a result of the Proposed Development. This can be through reducing consumption, using resources efficiently, and designing for longevity.

### 1.2.2 Waste Separation for Reuse and Recycle

Where possible, the separation of waste would be carried out at the source in order to maximise opportunities for reuse and recycling. Segregation of waste would require training, monitoring and enforcement.

### 1.2.3 Waste Storage, Disposal and Transportation

All areas used for temporary storage of waste on-site would comply with Defra and EA guidelines and would be clearly signed. Waste storage facilities would be provided at

<sup>3</sup> Legislation (England and Wales) (2011): The Waste (England and Wales) Regulations 2011 [Online] Available at: <https://www.legislation.gov.uk/uksi/2011/988/contents/made> (Accessed 30/06/2022)

<sup>4</sup> Defra (2011) Guidance on applying the Waste Hierarchy [Online] Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69403/pb135\\_30-waste-hierarchy-guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69403/pb135_30-waste-hierarchy-guidance.pdf) (Accessed 30/06/2022)



source using the best environmental options available. Any hazardous or special waste would be stored in separate, secure containers and clearly identified as such.

Disposal activities would also be carried out in accordance with the EA, Pollution Prevention Guidelines (PPGs<sup>5</sup>) in order to ensure compliance with current waste legislation.

A review plan for the PPGs is currently underway, replacing them with a replacement guidance series, Guidance for Pollution Prevention (GPPs<sup>6</sup>). GPPs provide environmental regulatory guidance for Northern Ireland, Scotland and Wales and environmental good practice guidance for the whole UK.

As the Site is within England the PPGs still provide regulatory guidance for the Development, however the activities would also be carried out in accordance with GPPs to demonstrate environmental good practice.

Waste transportation would take place at regular intervals to avoid the accrual of waste. Where possible, delivery vehicles would aim to remove waste materials on return trips.

Only registered waste carriers would be authorised to transport waste and a Waste Transfer Note (WTN) would be completed for each load of waste, which must contain a record of their waste carrier registration number. Copies of each WTN would be filed as an appendix to the SWMP and held for at least two years. The appropriate European Waste Catalogue (EWC) code would be established using updated Technical Guidance (WM3)<sup>7</sup> and would be noted on the WTN, in addition to how it is contained. All sites receiving waste must have an appropriate permit, licence or registration exemption, the details of which should also be recoded.

If required, the EA would be advised in advance of any hazardous waste movements and Waste Consignment Notes (WCNs) would be purchased in advance for this type of waste transportation. These consignment notes would be held for at least three years.

### 1.3 POLICY CONTEXT AND LEGISLATION

As of 2013, the production and implementation of a SWMP is no longer a legal requirement, however it is regarded as best practice<sup>8</sup>. Policy and legislation do dictate the management of waste and therefore, the following items have been considered when developing the SWMP:

- The Environmental Protection Act 1990<sup>9</sup>
- The Hazardous Waste (England and Wales) Regulations 2005<sup>10</sup>

<sup>5</sup> Environment Agency (2014): Pollution prevention guidance (PPG) [Withdrawn] Available at: <https://webarchive.nationalarchives.gov.uk/20140328090931/http://www.environment-agency.gov.uk/business/topics/pollution/39083.aspx> (Achieved material accessed 30/06/2022)

<sup>6</sup> NetRegs (2021): Guidance for Pollution Prevention (GPP) [Online]. Available at: <https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/guidance-for-pollution-prevention-gpps-full-list/> (Accessed 30/06/2022)

<sup>7</sup> Environment Agency, Scottish Environment Protection Agency & Natural Resources Wales (2015) Waste Classification: Guidance on the classification and assessment of waste (1st Edition v1.1.GB ) Technical Guidance WM3, EU Exit Update (Jan 2021) [Online] Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/948735/Waste\\_classification\\_technical\\_guidance\\_WM3.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/948735/Waste_classification_technical_guidance_WM3.pdf) (Accessed 30/06/2022)

<sup>8</sup> IEMA (2008) Practitioner Series No. 11, Waste Management: A Guide for Business in the UK. Institute of Environmental Management and Assessment.

<sup>9</sup> UK Government (1990): Environmental Protection Act 1990 [Online] Available at: <https://www.legislation.gov.uk/ukpga/1990/43/contents> (Accessed 30/06/2022)

<sup>10</sup> Legislation (England and Wales) (2005) The Hazardous Waste (England and Wales) Regulations 2005 [Online] Available at: <https://www.legislation.gov.uk/uksi/2005/894/contents/made> (Accessed 30/06/2022)

- The Waste (England and Wales) Regulations 2011<sup>11</sup>
- The Waste Framework Directive<sup>12</sup>, and
- The Waste Management Plan for England 2013<sup>13</sup>

Should any surplus waste remain which cannot be reused or recycled, then the Landfill Directive 1999<sup>14</sup> would apply.

## 1.4 GUIDANCE

Several guidance documents were also used to develop this SWMP and include:

- Environment Agency, 2015, Manage Water on Land: Guidance for Land Managers<sup>15</sup>;
- British Standards Institution, 2015, BS 5930:2015, Code of practice for ground investigations<sup>16</sup>
- Construction Industry Research and Information Association (CIRIA), 2015, Environmental Good Practice on Site (C741), 4th edition<sup>17</sup>
- Defra and Environmental Agency, 2018, Waste Duty of Care Code of Practice<sup>18</sup>
- Defra and Environmental Agency, 2019, Pollution Prevention for Businesses<sup>19</sup>
- Defra and Environmental Agency, 2021, Discharges to Surface water and groundwater: environmental permits<sup>20</sup>
- Defra and Environmental Agency, 2020, Oil Storage Regulations for Businesses<sup>21</sup>
- Institute of Environmental Management and Assessment (IEMA), 2008, Practitioner Vol. 11 Waste Management: a guide for businesses in the UK<sup>22</sup>, and
- Wrap, [www.wrap.org.uk](http://www.wrap.org.uk)<sup>23</sup>

The above guidance on waste management would be used to ensure the following objectives are met through the Outline SWMP:

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<sup>11</sup> Legislation (England and Wales) (2011) The Waste (England and Wales) Regulations 2011 [Online] Available at: <https://www.legislation.gov.uk/ukSI/2011/988/contents/made> (Accessed 30/06/2022)

<sup>12</sup> European Commission (2008) The Waste Framework Directive - DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives [Online] Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02008L0098-20180705> (Accessed 30/06/2022)

<sup>13</sup> Defra (2013) The Waste Management Plan for England 2013 [Online] Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/265810/pb14\\_100-waste-management-plan-20131213.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/265810/pb14_100-waste-management-plan-20131213.pdf) (Access 30/06/2022)

<sup>14</sup> European Commission (1999) Landfill of waste - Directive 1999/31/EC on the landfill of waste [Online] Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3A121208> (Accessed 30/06/2022)

<sup>15</sup> Environment Agency (2015) Manage Water on Land: Guidance for Land Managers [Online] Available at: <https://www.gov.uk/guidance/manage-water-on-land-guidance-for-land-managers> (Accessed 30/06/2022)

<sup>16</sup> British Standards Institution (2015) Code of practice for ground investigations - BS 5930:2015+A1:2020

<sup>17</sup> Construction Industry Research and Information Association (2015): Environmental Good Practice on Site (C741), 4th edition

<sup>18</sup> Defra and Environmental Agency (2018) Waste Duty of Care Code of Practice [Online] Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/759083/waste-code-practice-2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/759083/waste-code-practice-2018.pdf) (Accessed 30/06/2022)

<sup>19</sup> Defra and Environmental Agency (2016) Pollution Prevention for Businesses [Online] Available at: <https://www.gov.uk/guidance/pollution-prevention-for-businesses> (Accessed 30/06/2022)

<sup>20</sup> Defra and Environmental Agency (2021) Discharges to Surface water and groundwater: environmental permits [Online] Available at: <https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits> (Accessed 30/06/2022)

<sup>21</sup> Defra and Environmental Agency (2020) Oil Storage Regulations for Businesses [Online] Available at: <https://www.gov.uk/guidance/storing-oil-at-a-home-or-business> (Accessed 30/06/2022)

<sup>22</sup> IEMA (2008) Practitioner Series No. 11, Waste Management: A Guide for Business in the UK. Institute of Environmental Management and Assessment.

<sup>23</sup> Waste and Resources Action Programme (WRAP) [Online] Available at: <https://wrap.org.uk/> (Accessed 30/06/2022)

- Legal obligations of the Proposed Development;
- Waste production is minimised;
- Waste is recognised as a resource;
- Project build costs are minimised;
- A framework for continuous improvement and best practice is implemented and maintained, and; and
- Adverse environmental impacts associated with the production and management of waste materials are minimised.

## **1.5 ANTICIPATED WASTE STREAMS**

The list below provides an indication of the expected waste streams. However, this list is not exhaustive and additional streams may be added as the works progress:

- Waste from welfare facilities;
- Waste chemicals, fuels and oils;
- Packaging;
- Waste metals; and
- Waste water.

### **1.5.1 Waste from Welfare Facilities**

Temporary welfare facilities would be provided during the construction phase of the Optimisation phase. These facilities would include toilets, washing and drinking water. This could include a connection to the public mains water supply, and a cess tank that would be periodically emptied and taken off-site by a licensed operator. All on-site welfare facilities would be clearly signposted and maintained.

Where excess surface water occurs from the area of the buildings, this would be collected and treated in a Sustainable Urban Drainage System (SUDS), prior to discharge.

### **1.5.2 Toilet Facilities**

During the initial construction phase, 'Porta-loo' type facilities, or equivalent, would be used and emptied by an approved waste contractor, therefore minimising potential effects on drainage ditches and watercourses.

### **1.5.3 Other Domestic Refuse**

Collection facilities for refuse would be provided to segregate waste. These facilities would be clearly marked, positioned in appropriate locations and protected from the weather and animals.

### **1.5.4 Waste Chemicals, Fuels and Oils**

All fuel and oil would be stored within designated area and contained by a small bund constructed from material sourced on site and lined with an impermeable membrane in order to prevent any contamination of the surrounding soils, vegetation and water table, in accordance with Defra and Environmental Agency Oil Storage Regulations for Businesses<sup>24</sup>. Any contaminated run-off within the bund would be disposed of at an appropriate waste management facility.

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<sup>24</sup> Defra and Environmental Agency (2020) Oil Storage Regulations for Businesses [Online] Available at: <https://www.gov.uk/guidance/storing-oil-at-a-home-or-business> (Accessed 30/06/2022)

Any used (contaminated) spill kits, absorbent granules, sheets or fibres must be disposed of in accordance with the COSHH Regulations<sup>25</sup> and amended workplace limits for exposure to COSHH materials<sup>26</sup> and in accordance with the spill management plan.

### 1.5.5 Packaging

Construction waste generated is expected to be restricted to general construction waste (e.g., off cuts of timber, timber pallets, cardboard, wire, cleaning cloths, paper, etc.) which would be sorted and either recycled or disposed of off-site to an appropriately licenced landfill by the Contractor.

Packaging would be separated at the source of generation on-site, where practical. This approach uses the Waste Hierarchy by encouraging reuse and recycling of materials, such as plastic, wood and paper.

### 1.5.6 Waste Metals

It is likely that this would be produced from excess construction materials. Any waste metal would be recycled as appropriate.

### 1.5.7 Waste Water

#### 1.5.7.1 Dewatering of Excavations

Based on the information provided within the Flood Risk Assessment, Appendix 9.2, accompanying the ES, it is unlikely the excavations being carried out as part of this development would encounter groundwater.

Should groundwater be encountered, and dewatering is required, water would be pumped into settlement lagoons for treatment and discharged onto vegetated surfaces. Details of such activities are included in the Outline CEMP.

Alkali (limestone) may be added to the base of dewatering pits to buffer acidic water, should intrusive site investigations indicate the presence of acid mine water in near surface groundwater. Settlement lagoons may also be constructed with a composting layer also allow for the treatment of any ochre water before being discharged into the hydrological system. A schematic diagram is displayed below:

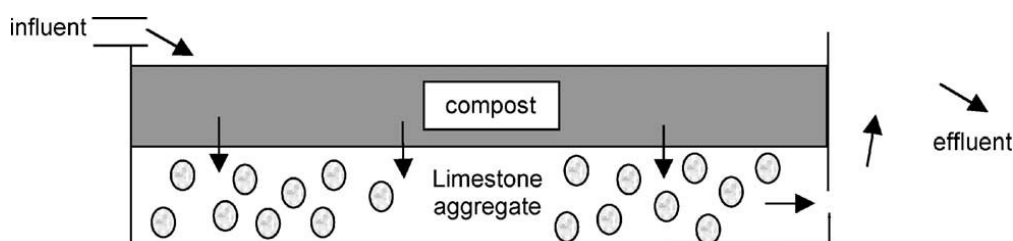


Diagram taken from Johnson & Hallberg 2005<sup>27</sup>.

#### 1.5.7.2 Cleaning Activities

A vehicle washing facility or designated jet-wash water bowser would be located in the construction compound or other designated area, if necessary. The sump water would

<sup>25</sup> Health and Safety Executive (2002) Control of Substances Hazardous to Health 2002 (COSHH)

<sup>26</sup> Health and Safety Executive (2020) EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations 2002 (as amended)

<sup>27</sup> Johnson & Hallberg (2005) Acid mine drainage remediation options: a review [Online] Available at: [johnson2005-with-cover-page-v2.pdf](http://johnson2005-with-cover-page-v2.pdf) (d1wqtxts1xzle7.cloudfront.net) (Accessed 30/06/2022)

either be pumped to a licenced carrier and disposed of offsite or discharged to vegetated surfaces if the water quality meets EA requirements.

## **ANNEX C**

### **OUTLINE INCIDENT RESPONSE PLAN**

# 1 OUTLINE INCIDENT RESPONSE PLAN

## 1.1 INTRODUCTION

An Incident Response Plan would be implemented throughout the construction and operation of the Proposed Development.

Prior to the commencement of construction, the lead principal contractor shall set up an emergency response plan/procedure, in order to ensure that this plan is adequate for the nature and lifetime of the project and the environment in which works are being undertaken.

The Incident Response Plan would include emergency contacts who would coordinate response activities in the event of a pollution incident.

This Incident Response Plan would include an outline procedure similar to that set out below:

**1. Make the situation safe:** Do not compromise the health and safety of site personnel in controlling a pollution incident. Ensure that appropriate Personal Protective Equipment (PPE) is available to use where necessary.

**2. Stop the source of the pollution incident:** Identify the cause of the emergency or incident and act immediately to prevent further pollution.

**3. Contain the pollution incident:** Once the source of the pollution has been stopped, act to prevent the pollution that has already taken place from spreading. Ensure that appropriate materials are available in appropriate quantities to use where necessary. For example, absorbent materials and booms to soak up the pollution are required to deal with spillages of liquid contaminants. For example, an excavator may be used to dig containment facilities or bunds where containing large volumes of pollutants.

**4. Notify the pollution incident:** Any emergency or incident would be reported as soon as possible after the above initial control measures have been implemented detailing the nature, cause and location to ensure that appropriate action is taken. Where appropriate, the site team should refer the incident to a specialist clean up Contractor. Where pollution is serious, or containment has failed, it may be necessary to contact the Local Authority, the Environment Agency and/or Natural England as relevant to the incident.

**5. Monitor the pollution incident:** Once the pollutants are contained, the site of the pollution should be monitored on an ongoing basis until the pollutants and contaminated materials are successfully removed and if necessary, further action taken to contain the pollutants. Where it is possible that pollution has spread, the surrounding water bodies and watercourses should be inspected and monitored on an ongoing basis to identify the extents of the pollution. In the event of pollution due to sedimentation of watercourses, those watercourses should be checked during periods of high rainfall or during construction activities with the potential for significant run-off.

**6. Clean up the pollution incident:** Once the pollution incident has been stopped, contained and the full extents defined, a strategy for cleaning up should be developed. All waste generated by clean-up activities should be disposed of in accordance with current legislative requirements and the site waste management plan and copies of all transfer notes retained.

**7. Learn from the pollution incident:** Ensure that any lessons from the incident are communicated to all relevant staff and appropriate action taken elsewhere on site if

necessary. Update all relevant Method Statements and Toolbox Talks, and ensure new information is communicated to site staff.

## **1.2 ENVIRONMENTAL INCIDENT PROTOCOL**

In the event of an environmental incident occurring, the following protocol (or similar) would be adopted:

- The appropriate notification protocols shall be implemented immediately following a planning or environmental spillage or incident, followed by immediate notification of the Site Manager. Should a serious environmental incident occur, the EA should also be notified;
- The Site Manager would investigate the incident, with inputs from specialist advice as to appropriate measures to remedy or mitigate any potential pollution arising from the incident;
- Assuming the issue arose from the failure of a control system, the issue shall be rectified at the earliest opportunity;
- The response action shall be recorded on the Environmental Complaints/ Spills/ Incidents Report by the Site Manager or ECoW;
- A log of all environmental spills/ incidents and follow-up actions should be kept and made available for inspection; and
- All complaints received from the public or other interested parties as a result of the installation works must be recorded on the Environmental Complaints/ Spills/ Incident Form.

## **1.3 REPORTING OF ENVIRONMENTAL INCIDENTS**

All accidents, incidents and near misses (including spills, dust, noise pollution etc) would be reported to the Site Manager immediately, these would be recorded and investigated by the Site Manager and if there is legitimate concern for the surrounding flora and fauna after the incident, then an ECoW would be contacted for advice.

Details which would be recorded on the report would include:

- A description of the incident;
- Contributory causes;
- Adverse effects;
- Measures implemented to mitigate adverse effects; and
- Effectiveness of measures implemented to prevent pollution incidents.

## **1.4 EMERGENCY CONTACT DETAILS**

A notice displaying emergency contact details would be displayed in a prominent location within the site accommodation / office, including emergency spill response team details.

## **1.5 INTERNAL EMERGENCY POLLUTION RESPONSE TEAM**

The details of at least two lead members of staff with responsibility for emergency pollution response would be included in this section, as well as the details of the Ecological Clerk of Works during construction:

- Primary emergency contact;
- Secondary emergency contact; and
- Ecological Clerk of Works.



### 1.5.1 External Organisations

This section would be populated with contact telephone numbers for organisations to be contacted following a pollution incident (contact details are specifically excluded to ensure that the final version of the CEMP includes the most up to date details). Examples of the types of organisations/call lines to be included are:

- EA Incident Hotline; and
- Natural England.



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