

DEMOLITION ENVIRONMENTAL MANAGEMENT PLAN

Hoover Merthyr Tydfil



DEMP No. 001

Rev No. 0.0

Date. 08.05.2026

Prepared by: Andrew Pope (Senior Project Manager)

Reviewed / Approved by: Jim Webb (Regional Director/Demolition Director)

Date: 11.05.2026

**Walters
Hirwaun House
Hirwaun Industrial Estate
Hirwaun,
Aberdare
CF44 9UL**

Distribution :
Meryl Lewis- Walters Land

Tel. No. 01685 815100

Version and Review Control

Revision	Date	Revised by	Approved by	Description

This is intended to be a live document. It should be reviewed and updated as necessary.

CONTENTS

1.0	Introduction
2.0	Contract Summary
3.0	Organisational Chart and Responsibilities
4.0	Scope of Works
5.0	Programme
6.0	Key Environmental Issues
7.0	Relevant Planning Conditions
8.0	Mitigation Measures
	➤ Site Security and Compound ➤ Site Traffic ➤ Wheel Washing Facilities ➤ Protected Species ➤ Trees ➤ Invasive Species ➤ Noise and Vibration ➤ Air Quality (Dust) ➤ Surface Water ➤ Contaminants ➤ Waste ➤ Recycling ➤ Control of rodents
9.0	Carbon Footprint/ Sustainability
10.0	Stakeholders
11.0	Key Performance Indicators
12.0	Review

Appendices

1.0 INTRODUCTION

This Demolition Environmental Management Plan (DEMP) is intended to outline our approach to minimising environmental impacts from the works to demolish the former Hoover Site in Merthyr Tydfil during the planning and execution of the works.

This document will identify the risks to the surroundings and environment that may result from the works and will outline the planned mechanisms by which these risks will be eliminated or mitigated.

2.0 CONTRACT SUMMARY

Contract Name: Demolition of Former Hoover Site

Contract Number: tba

Location of the Site: Merthyr Road, Pentrebach, Merthyr Tydfil CF48 4TU

Principal Contractor: Walters UK Ltd

Client: ABP

Client Project Manager: Vahe Zarifian

Person Drafting the Plan: Andrew Pope

Designation of the Person Drafting the Plan: Senior Contracts Manager

Environmental Specialist: tba

Environmental Health Department: Merthyr Tydfil County Borough Council

Highways Department: Merthyr Tydfil County Borough Council

Contract Duration: tba

Contract Start Date: tba

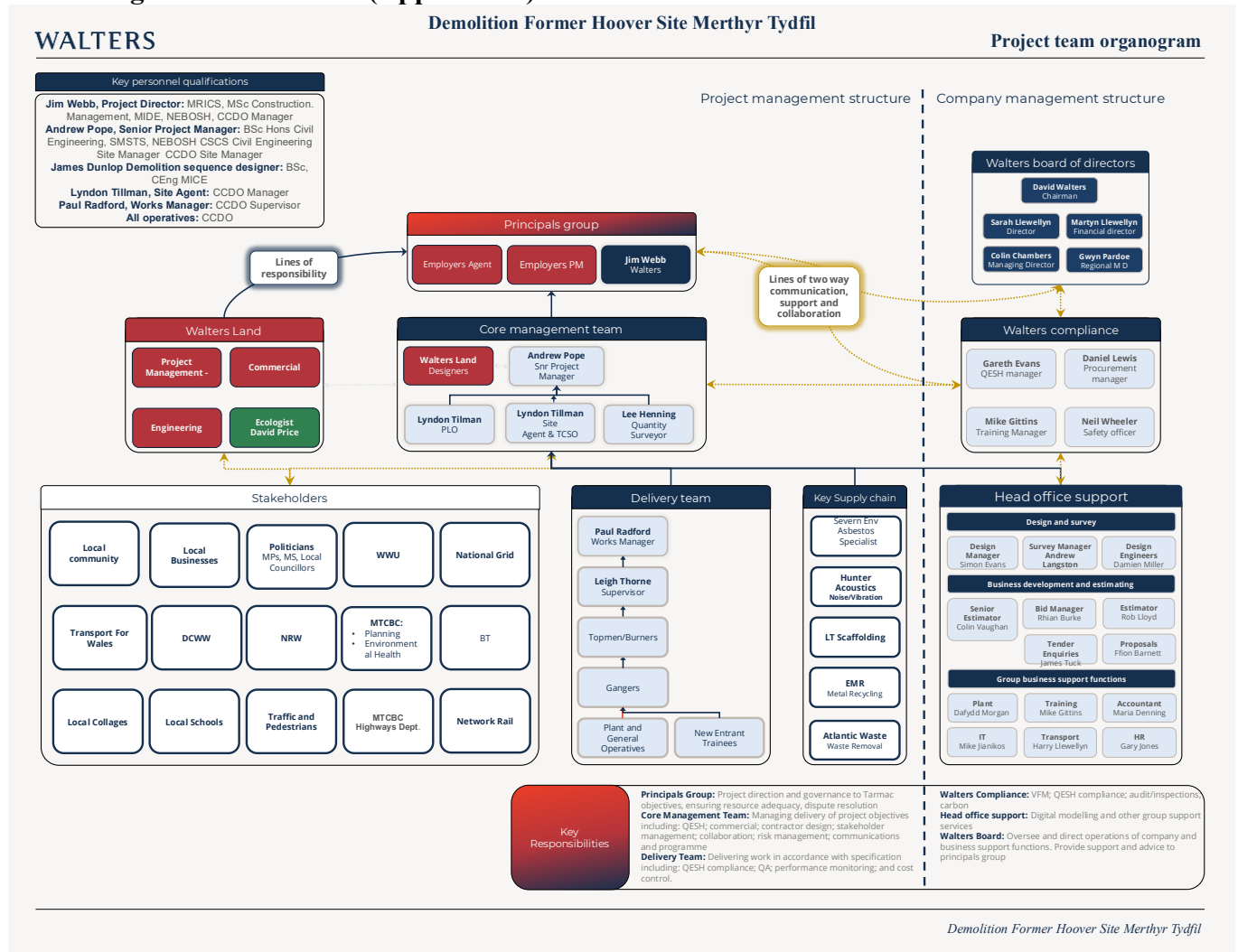
Contract Finish Date: tba

Contract Type: tba

3.0 ORGANISATIONAL CHART, PROJECT ROLES & RESPONSIBILITIES

The included organogram outlines members of the client's team, contractor's team and principal stakeholders associated with these works.

3.1 Organisational Chart (Appendix A)



3.2 Project Specific Roles & Responsibilities

Roles & Responsibilities are to be the standard ones as detailed in Section 3.2 of the Environmental Management Policy Manual unless listed as follows.

Jim Webb - Regional Director/Demolition Director
 Andrew Pope – Snr Project Manager
 Lyndon Tilman – Site Manager
 Paul Radford - Works Manager
 Leigh Thorne – Site Supervisor

4.0 SCOPE OF WORKS

The safe demolition of the structures known as the former Hoover Site Pentrebach Merthyr Tydfil. The structure is to be demolished in its entirety to allow the site to be redeveloped. The site is bounded to the east by the A4054 (Merthyr Road) and a live Network Rail line to the west which in turn lies adjacent and east of the River Taff. It is primarily hard surfaced with buildings, service yards and highway infrastructure although a cricket pitch and bowls green occupy approximately 3.38ha of the lower half; a treelined verge forms the eastern boundary immediately adjacent Merthyr Road.

Main aspects of work will include the following, but is not restricted to the following:

- Service disconnections
- The removal of any internal asbestos from the structure
- The soft strip of the structure and removal of materials arising
- Installation of public protection scaffolding
- The demolition of the former factory buildings, offices and clearance to slab level

5.0 PROGRAMME

Contract Duration: 40-50 weeks

Contract Start Date: tba

Contract Finish Date: tba

6.0 KEY ENVIRONMENTAL ISSUES

The following are examples of potential key environmental issues that could be identified in association with the site works at the Hoover site:

- Site security and compound
- Site traffic
- Wheel-washing facilities
- Protected species
 - Bats
 - Common dormouse
 - European otter
 - Great crested newt and amphibians
 - Reptiles
 - Nesting birds
 - European badger
 - West European hedgehog
 - Invertebrates
 - Plants
 - Fish
 - Invasive species
- Trees
- Dealing with invasive species (Japanese Knotweed)
- Control of Noise and Vibration
- Maintenance of air quality – control of dust
- Management of surface water
- Treatment and disposal of contaminants
- Control of waste
- Recycling opportunities
- Prevention of pollution of river
-

7.0 RELEVANT PLANNING CONDITIONS

This document is a requirement in accordance with Condition 10 of Merthyr Tydfil County Borough Outline Planning Permission No. P/25/0165, which states:

No development, including site clearance, shall commence until a final version of a site wide Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP should include:

- Construction methods: details of materials, how waste generated will be managed;
- General Site Management: details of the construction programme including the timetable and details of any site clearance; details of site construction drainage, containments areas, appropriately sized buffer zones between storage areas (of spoil, oils, fuels, concrete mixing and washing areas) and any watercourse or surface drainage.
- Soil Management: details of topsoil strip, storage and amelioration for re-use.
- CEMP Masterplan: details of the extent and phasing of development.
- Resource Management: details of fuel and chemical storage and containment; details of waste generation and its management; details of water consumption, wastewater and energy use.
- Traffic Management: details of site deliveries, plant on site, wheel wash facilities.
- Pollution Prevention: demonstrate how relevant Guidelines for Pollution Prevention and best practice will be implemented, including details of emergency spill procedures and incident response plan.
- Details of the persons and bodies responsible for activities associated with the CEMP and emergency contact details.
- Landscape/ecological clerk of works to ensure construction compliance with approved plans and environmental regulations.
- A scheme for the retention and storage of original features within the site and on the building (including the Hoover signage), which can be re-used and incorporated into the development as part of a wider heritage strategy.

8.0 MITIGATION MEASURES

Walters will minimise disruption around the site and to the local area by putting the mitigation measures listed below in place.

8.1 Site Security and Compound

Location: Prior to starting works on the site, the site team have visited the site to confirm the most appropriate location of the compound and storage areas. The location of our set up will

be as indicated in drawings HOV-AMP-2026-002 & HOV-AMP-2026-004 within Appendix F of the CEMP. Existing hard standings will be used where available and practical for such use.

Equipment: Our set up will include: Canteen block, welfare block (toilets/drying room), office block and store. Cabins will be double stacked.

How impact will be mitigated: Cabins will be arranged so that they do not overlook neighbouring properties. Cabins will run off battery power out of hours to eliminate disturbance to residential properties through the evening and night-time.

Fire extinguishers will be placed at each unit on site, as well as being placed in the working areas, and air horns will be placed with each set of extinguishers. When on site and as part of the site induction, fire drills will be undertaken to ensure the systems put in place by the site management team work effectively.

Heras style fencing will be used to enclose the site boundary and working areas. All panels will be secure and the site entrance gates will remain closed and locked when not in use. Upon entering the site, a site induction will be given to the site personnel, with delivery drivers and site visitors having a visitor induction. All visitors will be escorted by a Walters employee at all times.

In the daytime, security will be provided by the site staff who will control access to the site, with all visitors having to report to the site office and sign in. Site security will be provided for all out of hours, weekends and holiday periods.

Staff and operatives will park their vehicles in adjacent car parks so as not to add to the parking problem which already exists in the area. There will be strictly no parking of vehicles associated with the works in nearby residential streets.

8.2 Site Traffic

Site deliveries are expected to be of only very low density. Very few bulk materials are required for the demolition, earthworks and remediation works when recycling and processing targets are taken into account. Initially only minor deliveries, day to day operative's cars and plant transportation vehicles are envisaged, in the order of 50 – 60 vehicular movements during a working day with majority in the morning and evening. These vehicular numbers will be further limited by the regular car share arrangements followed by many of our operatives. All Plant and materials will be unloaded at a designated unloading area within the site.

We will employ a dedicated Gateman to control vehicle and pedestrian movements into and out of the compound area. The boundary interfaces of the site will be fully surrounded with heras fencing. Pedestrian and vehicle gates will be kept locked at all times and controlled by combination locks. Movements on and off site will be fully supervised by a Banksman operative at all times and our entrance will be attended by a Gateman. Due to the proximity of the site and the high probability of vandalism, trespass and / or attempted unauthorised access, we will employ full time manned out of hours security to ensure the safety and security of all. Daily recorded inspections of the site perimeter will be undertaken to ensure any breaches are identified and immediately repaired/rectified, and, where safe to do so, the structure will be inspected at the start of each shift to confirm that it is vacant. This will be confirmed by the Site Supervisor in the morning Start of Shift (SOS) briefing.

The management of traffic and pedestrians is of paramount importance throughout the project both in ensuring health and safety and in maintaining public confidence. Immediately

following appointment, the Walters team will engage with and work with the Merthyr Tydfil County Borough Council Highways team to develop a robust traffic management plan to cover all scenarios and operations associated with the scheme. The TMP will be reviewed and updated on a regular basis to suit the nature and location of ongoing works. The site traffic management plan will achieve the following: Absolute segregation of unauthorised pedestrians from work areas; absolute segregation of pedestrians from vehicle and traffic zones; delineated traffic routes for delivery vehicles and trucks into and out of the site; adequate signage in all areas and on public approach roads; all roads, footpaths and areas outside the demolition closure areas will be maintained accessible for vehicular and pedestrian access; pedestrian crossing points will be maintained throughout. We will actively promote and participate in all coordination meetings with local businesses and other affected stakeholders. Our overarching approach will be to minimise disruption to local stakeholders, including businesses, residents, pedestrians and cyclists as a result of the works and associated traffic management requirements by ensuring on time delivery and by limiting the amount of restrictions required through delivery. We understand that this type of demolition works can cause concern and worry for local stakeholders, businesses and residents and we are mindful of the need to work in harmony with the local community. We will work very hard to inform, involve and reassure affected parties about the works. All site access will be via the dock access road. Our Traffic and Pedestrian Marshalls will escort all deliveries and collections in to and out of the site and will remain in touch with the demolition team inside the footprint of the structure at all times via 2-way radios. Works in the vicinity of this area will be halted as necessary to allow people safe access. It will be necessary for us to hold pedestrians on occasion, or to divert them entirely for periods, to allow certain essential works to be completed. We will keep such temporary closures/diversions to a minimum as far as reasonably practicable.

8.3 Wheel-washing Facilities

We fully appreciate the potential for nuisance factors associated with the work that we do. The site is surrounded by a busy city centre road network along with commercial properties, and we will work hard to ensure that this is kept clean and free from dirt and debris at all times.

A roadbrush with suction to a collection compartment and watering device will be employed as necessary to ensure that all roads around the site remain free from contamination at all times.

A high pressure water hose unit will be permanently resident on site to wash down vehicles prior to exiting the site onto the road network. Drivers and operatives checking between the double wheels of the trucks for stones getting stuck between the tyres. Only when clean and wheel checked will the vehicle be allowed to enter the road network.

Any storm drainage on site will have the covers lifted and membranes cut to fit the openings. The covers will be closed and drainage socks placed around the lids to stop any solids from entering the drainage system, while allowing water to drain from the washing area. To reduce the pollution risk, we will ensure the following:

- plant and wheel washing is carried out in a designated area of hard standing at least 10 metres from any watercourse or surface water drain
- run-off is contained and absorbed with absorbant pads
- any settled solids in this area will be removed and disposed of into waste skips

8.4 Protected Species

We will work closely with the Project Ecologist and follow the guidance of the habitat assessment report to ensure that all aspects of the Project Environmental and Ecological Plans are followed.

The Preliminary Ecological Appraisal Report will assess the potential impacts on:

- River Taff and tributary rivers
- Site of Importance for Nature Conservation (SINC)
- Amphibians
- Bats
- Fish
- Hedgehog
- Nesting birds
- Otter

Bats

The structure will be assessed for bat activity and roost potential.

All works will be undertaken during daylight hours only to ensure there is no disturbance to nocturnal species.

Common dormouse

The site will be assessed for dormouse activity potential.

There will not be a negative impact on common dormouse as a result of the proposed development.

European otter

The local records will be assessed for details of proximity of European otter in the vicinity of the site.

Otter are highly likely to use the River Taff to forage and commute. Dense vegetation is found on the banks up-stream and down-stream of the site which would be suitable for holts or lay-up sites.

Impacts to water quality during demolition could affect otter food sources, through pollution events (e.g. sediment release, fuel leaks etc.).

If any lighting is used outside daylight hours during works this may disturb nocturnal species, including otter.

No other offences (deliberate capture, injure, or killing of an otter, damage/destruction of a breeding site or resting place, obstruction of access to a place of shelter) are considered likely to occur as a result of the works.

An ecologist will undertake a pre-commencement check for otters.

Pollution prevention measures will be put in place to ensure that run off from the works do not enter the river downstream from the site (e.g., spill kits on site and silt fencing) and impact the species that the river supports

Great crested newt and amphibians

It is not thought likely that there will be a negative impact on great crested newt as a result of the proposed development, however, this will be checked and confirmed and confirmed by the ecologist.

If any vegetation clearance is required, this will be undertaken under the advice of an ecologist.

Reptiles

The habitat (buildings, hardstanding) onsite is not suitable for reptiles. And it is thought unlikely that there would be a negative impact on reptile species as a result of the proposed development, however, this will be checked and confirmed by the ecologist prior to any works on site commencing.

Nesting birds

If vegetation suitable for nesting birds is to be removed, then any clearance will take place outside of the bird nesting season. If clearance work has to be undertaken during the nesting season (generally from 1st March until 31st August, although birds are known to nest outside of these dates in suitable conditions), a nest bird check will be required and must be carried out by a suitably qualified person. Any active nests identified should be protected until the young have fledged. Where a Schedule 1 species (as defined in the Wildlife and Countryside Act - <http://www.jncc.gov.uk/page-3614> is involved, compensation for impacts, e.g., loss of nesting sites, should be devised and implemented.

A nesting bird check will be undertaken within 48hrs of commencement of works

European badger

The habitat onsite is not suitable for badgers (buildings/ hardstanding/running water).

It is not thought likely that there will be a negative impact on European badger as a result of the proposed development, however, this will be checked and confirmed by the ecologist prior to any works on site commencing.

West European hedgehog

It is not thought likely that there will be a negative impact on West European hedgehog as a result of the proposed development, however, this will be checked and confirmed and confirmed by the ecologist.

Invertebrates

It is not thought likely that there will be a negative long-term impact on invertebrate species as a result of the proposed development, however, this will be checked and confirmed and confirmed by the ecologist.

Plants

No priority or protected plant species are thought likely to exist on the site and it is thought unlikely that there would be a negative impact on plant species as a result of the proposed development, however, this will be checked and confirmed and confirmed by the ecologist.

Fish

There may be a negative impact on fish present in the river during the proposed works if appropriate pollution prevention measures are not followed.

Pollution prevention measures will be put in place to ensure that run off from the works do not enter the river downstream from the site (e.g., spill kits on site and silt fencing) and impact the species that the river supports.

Invasive species

No evidence of Japanese knotweed or Himalayan balsam are evident onsite, however, this will be checked and confirmed and confirmed by the ecologist prior to commencement of any works on site.

8.5 Trees

It is not thought that any trees will be affected by the demolition work at the site. However, Walters will work to any arboricultural report produced.

8.6 Invasive Species (Japanese Knotweed)

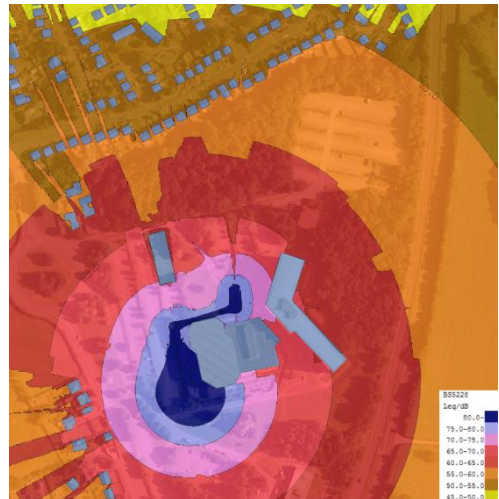
Due to the location of this site, close to the River Taff, Japanese Knotweed is a valid consideration and due care and attention will be given to its potential existence on site. Should any be detected at any stage, the Client will be informed and an appropriate method of removal and eradication will be developed.

8.7 Noise and Vibration

The nature of demolition work has the propensity to create noise and vibration. Walters will endeavour to avoid noise and vibration nuisance to surrounding properties and businesses at all times by putting control measures in place.

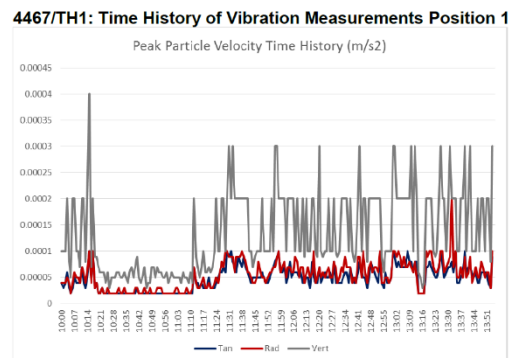
Controlling Noise:

In order to ensure to demonstrate and predict noise associated with our demolition projects we work with our acoustic partners to prepare 'noise maps' to provide an indication of the likely levels of noise associated with each stage of the deconstruction process. See adjacent 'noise map' from one of our recent schemes. Noise emission details are obtained for the various items of plant and equipment working on a particular activity and then collated by acoustic specialists 'Hunter Acoustics', to provide an overall noise emission prediction for the activity/site. The prediction is presented as a coloured image ('noise map') with each different colour depicting a different decibel dB reading. In this example, dark blue being the highest dB reading and yellow being the lowest reading. Predicting noise in this way allowed us to demonstrate to stakeholders, at the pre-start meeting and before key operations, the likely levels of noise they were likely to experience. It also allowed us to plan and mitigate noise wherever possible, for example by choosing to employ hydraulic munchers to breakdown reinforced concrete in close proximity to residential and commercial properties instead of using hydraulic hammers. Regular updated predictions and assessment are then undertaken to suit the ongoing works and to provide information and reassurance to stakeholders ahead of the start of the project. Wherever possible, noisy works will be undertaken during normal weekday working hours. Noisy work will be limited and avoided, if possible, outside of these times.



Controlling Vibration:

BS5228 states: "All reasonably practicable means should be employed to ensure the protection of local communities and of people on construction sites, from detrimental effects of the vibration generated by construction operations. Where practicable, low vibration working methods should be employed and consideration should be given to the use of most suitable plant, reasonable hours of working for operations which might give rise to perceptible vibrations, and economy and speed of operations. See example vibration assessment from one of our recent demolition schemes where we engaged the services of Hunter Acoustics to assess the effect of vibration levels on adjacent commercial properties during works to breakout reinforced slabs and foundations. Readings demonstrated that vibration levels measured were well below what would be assessed to be the most stringent 'Cosmetic Damage' criteria in BS5228 Part 2 2009. The results were in line with subjective impressions felt on site during the work that vibration was only very occasionally 'just perceptible'. The results enabled Walters and RCT CBC (in this case) to provide reassurance to local property owners/tenants that damage to their properties from the ongoing site activities was extremely unlikely.



Measures to Mitigate Noise and Vibration Nuisance Generally

We would look to mitigate any possible nuisance caused from noise and vibration by employing mechanisms including:

- Undertaking a noise and vibration surveys in advance of operations to determine ambient levels.
- Advanced liaison with all parties and stakeholders who may be affected. This liaison could be verbal, by newsletter, site notice, meeting or letter, whichever is most appropriate in individual circumstances. We find that people are far less troubled by circumstances if they are informed of events and are not subject to surprises.
- The use of noise suppressed equipment.
- The use of work techniques designed to control vibration.
- The use of noise barriers and screens across the site wherever appropriate.
- All plant, machinery and equipment shall be switched off when not in use and a no idling policy shall be maintained at all sites, including compounds.
- Our plant fleet is modern and well-maintained which results in a lesser noise and vibration footprint.
- We will limit the period of operation of equipment which is particularly noisy or which must vibrate for its purpose, e.g. compaction equipment.
- We will adhere strictly to permitted working times.
- All plant and machinery in use will be properly silenced and maintained in accordance with manufacturer's instructions.
- All lighting will be angled as such that does not cause light trespass or disturbance neighbouring sensitive premises.
- Care will be taken to avoid dropping materials from excessive heights throughout all aspects of works.
- All site personnel will be informed to avoid unnecessary noise in carrying out manual operations and when operating equipment, this will include positioning of machinery on site to reduce the effect of the noise emitted to surrounding neighbours.
- Noisy plant or equipment will be sited as far away as possible from noise sensitive buildings.
- The moving parts of working machines will be adequately lubricated in order to minimise screeching and squealing.

Site Hours

Walters will always follow the requirements outlined in the Planning Conditions.

Site working hours will be:

08:00 – 18:00 Monday to Friday

08:00 – 13:00 Saturday

No works to take place on Sundays

No works to take place on Bank Holidays

8.8 Air Quality

The principal requirement in controlling air quality will be to control airborne/ nuisance dust.

The following circumstances will require controls:

Controlling Dust

CONSTRUCTION PHASE IMPACT ASSESSMENT

This assessment will consider both the potential for dust and particulate matter to be generated whilst demolition related activities are undertaken, and the potential for demolition-related vehicles at and around the site to affect air quality.

Construction Dust and Particulate Matter Methodology

In accordance with the IAQM construction dust guidance, the risk of dust and emissions affecting sensitive receptors in the area around the development will be assessed based on the 'area sensitivity' and the magnitude of emissions from each of the following types of construction activity:

- Demolition;
- Earthworks;
- Construction; and
- Trackout

For each activity, the risk of site-derived dust and emissions affecting local sensitive receptors will be determined as either negligible, low, medium, or high risk. The risk category may be different for each of the activities and depends on the potential emissions magnitude and the sensitivity of the area. Three different types of impact are considered:

- Disamenity due to dust soiling;
- The risk of health effects due to an increase in exposure to PM10; and
- Harm to ecological receptors.

The assessment is used to define the appropriate level of mitigation required.

Sensitivity of the Receiving Environment

The IAQM construction dust guidance indicates that the 'area sensitivity' can be determined based on the following factors:

- The sensitivity of individual receptors in the area;
- The proximity and number of those receptors;
- In the case of PM10, the local background concentration (assumed to be best represented by those presented in Table 3-2); and
- Site specific factors, such as whether there are natural shelters, such as trees, to reduce the risk of wind-blown dust.

Dust sensitive receptors will be identified in the vicinity of the proposed development site following the guidance published by IAQM. The sensitivity of the area to dust soiling, human health and ecological impacts will be assessed.

The Defra MAGIC Maps website will be consulted to assess if there are any Sites of Special Scientific Interest, Special Areas of Conservation, Special Protection Areas, Ramsar sites, National Nature Reserves or Local Nature Reserves within 50m of the site boundary or potential trackout routes. If so, impacts on ecological receptors will be considered.

As trackout dust emission magnitude will be considered. A 50m trackout route will be considered.

Summary of the Sensitivity of the Area to Dust Soiling and Human Health at the Development Site

Potential Impact		Sensitivity of the Surrounding Area		
		Demolition	Earthworks	Trackout
Dust soiling	Receptor sensitivity	High	High	High
	Number of receptors and distance from the source	10-100 <20m	10-100 <20m	10-100 <50m
	Overall Sensitivity of the Area	High	High	Medium
Human health	Receptor sensitivity	High	High	High
	Annual mean PM ₁₀ concentration	<24µg/m ³	<24µg/m ³	<24µg/m ³
	Number of receptors and distance from the source	10-100 <20m	10-100 <20m	10-100 <50m
	Overall Sensitivity of the Area	Low	Low	Low

As per the IAQM Guidance on the assessment of dust from demolition and construction sites, when evaluating the risk on human health we refer to the table “*Sensitivity of the Area to Human Health Impacts.*” This table refers to the receptor sensitivity, Annual Mean PM₁₀ concentration and number of receptors. These combined will provide the overall sensitivity of the area. For this site in particular, we have a ‘High’ receptor sensitivity, Annual Mean PM₁₀ concentration of <24µg/m³ and 10-100 receptors <20m. When these are combined you see the outcome as a ‘Low’ overall risk.

Wind/being near water this is not normally a consideration shown within the guidance and therefore was not considered during this assessment. The sensitivity assessment is carried out according to the IAQM guidance.

Best practice mitigations - including monitoring at the site boundary - provide detail on the sufficiency of mitigation measures. These measures can then be reviewed if found inadequate.

Overall Dust Risks

Combining the dust emissions magnitude and the sensitivity of the surroundings, the overall dust risks associated with the Neptune Works demolition site can then be assessed.

Site

The aim of the DMP is to specify appropriate mitigation such that, provided the mitigation is effectively applied. Mitigation measures to reduce potential impacts, based on this assessment, can then be defined.

CONTROL MEASURES AND MITIGATION

Mitigation measures

Mitigation measures recommended in the IAQM construction dust guidance are divided into ‘general measures’, applicable to all sites and measures specific to demolition,

earthworks and trackout. Depending on the level of risk assigned to each site, different mitigation is recommended.

Communications

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site
- Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary.
- Display the head or regional office contact information.

Dust Management

- Develop a Dust/Air Quality Management Plan.

Site Management

- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
- Make the complaints log available to the local authority when asked.
- Record any exceptional incidents that cause dust and/or air emissions, either on or off the site, and the action taken to resolve the situation in the log book.

Monitoring

- Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked.
- Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.

Preparing and Maintaining the Site

- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.

- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
- Cover, seed or fence stockpiles to prevent wind whipping.

Operating vehicle/machinery and sustainable travel

- Ensure all vehicles switch off engines when stationary - no idling vehicles.
- Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.
- Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on unsurfaced haul routes and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.
- Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).

Operations

- Only use cutting, grinding, or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-portable water where possible and appropriate.
- Use enclosed chutes, conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

Waste management

- Avoid bonfires and burning of waste materials.

Specific to Demolition

- Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
- Ensure effective water suppression is used during demolition operations. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.
- Avoid explosive blasting, using appropriate manual or mechanical alternatives.
- Bag and remove any biological debris or damp down such material before demolition.

Specific to Earthworks

- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable..

- Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable
- Only remove the cover in small areas during work and not all at once

Specific to Construction

Construction is not covered in this Demolition Environmental Management Plan

Specific to Trackout

- Use water-assisted dust sweeper(s) on the access, to remove, as necessary, any material tracked out of the site.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
- Record all inspections of haul routes and any subsequent action in the site log book.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

This DMP provides a robust suite of control and mitigation measures for the demolition, trackout activities. The measures aim to control dust and general pollution from site operations, and this DMP includes details of monitoring activities that are recommended to be undertaken (see below). Control should be applied throughout the proposed development works to ensure that emissions are mitigated.

The dust emitting activities outlined above can be effectively controlled by implementing the appropriate dust control measures detailed and any adverse effects can be greatly reduced or eliminated. As noted within the construction dust IAQM construction dust guidance, with the use of effective mitigation it is normally possible to minimise impacts and therefore the residual effect will normally be 'not significant'.

MONITORING PROTOCOL

Monitoring ambient pollutant levels during site activities can be used to:

- Demonstrate the efficiency of mitigation measures;
- Reduce costs by effective targeting of mitigation measures;
- Demonstrate compliance with regulatory or other standards;
- Demonstrate a commitment to reduce environmental impacts;
- Reduce complaints from site staff and the public;
- Reduce potential for conflict with regulators; and
- Speed up dispute resolution.

Monitoring regimes can range from real-time, continuous monitoring to the visual assessment of dust generation. Simple and inexpensive monitoring of construction impacts may be conducted by means of a number of techniques, including dust deposition monitoring (e.g. by 'Frisbee' dust deposition gauge), and optical real-time continuous particle monitors (e.g. Nephelometers).

Visual Inspections and Site Logbook

The Site Manager should undertake regular visual inspection/observation of visible dust as is practicable or where they suspect high levels of dust-generating activities may occur. A visual inspection should be undertaken whenever a complaint regarding dust generation is received. The extent of the inspection will generally be on-site but should be extended to the trackout routes, especially on days with heavy traffic movements in and out of the site. These may include 'exceptional incidents', such as very dry, windy days; days when dust suppression techniques fail; etc.

The findings of visual inspections should be documented, and mitigation measures reviewed and implemented as appropriate.

The logbook entry should include:

- Time & date;
- Reason for inspection (e.g. complaint received, regular inspection);
- Confirmation of any visible dust emissions and that these are being generated on site (and are thus within the control of site);
- Remedial actions taken if emissions observed; and
- Wind direction and strength (a weather station, wind sock or knowledge of the Beaufort Scale would assist in this).

It is important that all site personnel are aware of the requirement for the control of environmental impacts, and appropriate training should be given to all site personnel, covering:

- Health and environmental impacts of emissions to air;
- The benefits of controlling emissions to air;
- Emission control measures;
- Method statements; and
- Importance of good communication.

Dust Deposition Monitoring

The deposition of dust on surfaces may be one of the main causes of air pollution complaints from demolition, earthworks and construction activities. For this reason, it is recommended that a total of four 'Frisbee' dust deposition gauges or equivalent are to be installed close to the site boundary as shown below.

The 'Frisbee' dust deposition gauge developed by the Stockholm Environment Institute (SEI) at the University of York, is established as a simple and robust method for the quantification of dust deposition. Dust is collected on a horizontal surface and collection bottle. The dust is determined gravimetrically on a filter paper in the laboratory.

The monitoring location is suggested to be located near the sensitive receptors along site boundaries. It is recommended that dust deposition monitoring is undertaken and maintained throughout the work period. 'Frisbee' samples should be sent to an accredited laboratory for analysis.

The final selection of monitoring location may be subject to a degree of change prior to their installation, depending on practical issues on the site. They may also need to be moved at a later stage for various reasons, including if new dust sensitive premises were introduced,

subject to the agreement of all relevant parties. Any proposed variation to the monitoring should be carried out in consultation with the local authority.

It is proposed that the Frisbee sample is changed every 4 weeks/month. The results will be compared with the Suggested Guidelines for Deposited Ambient Dust (Published by Vallack & Shillito), with a trigger value of 200mg/m²/day considered given the 'residential areas & urban outskirts' setting of the site.

PM10 Monitoring using Real-Time Dust Monitors

If high volumes of dust complaints are received or works likely to create significant dust are planned, it is recommended that real-time monitoring is undertaken, where practicable.

Nephelometer instruments, such as the Turnkey Osiris unit, are not a reference equivalent method for the determination of airborne particulates, however, they do provide continuous data in near real-time that may be related to site events and are considered an appropriate and economical technique for this type of application.

These instruments measure continuous indicative concentrations of the PM10 fraction of suspended particle matter and the data are posted in near real-time to a website and are immediately viewable.

A Site Action Level (SAL) level of 190µg/m³ (1-hour average PM10) which is recommended in the latest IAQM guidance titled *Guidance on Monitoring in the Vicinity of Demolition and Construction Sites* will be adopted for the site. If this level is reached, an email will be sent to the air quality team at RSK and the Site Manager/other nominated site personnel (NSP).

If the Site Manager receives an email stating that the SAL has been exceeded, the following actions should be taken:

- Review the activities on site and determine if there is dust being generated from on-site activities;
- If the exceedance is deemed to be from the site activities, apply additional mitigation as soon as is practicable;
- These additional mitigation measures would be agreed with the Site Manager and will remain in place until a time that the ambient PM10 concentrations are below the SAL; and
- The occurrence should be recorded as a 'dust incident' or similar in the complaints log.

Where the Site Manager is not able to carry out these tasks, it should be ensured that a nominated person is on site in their absence.

Proposed Reporting Programme

Monitoring reports will be prepared monthly and submitted to the client. The content of the reports may vary according to future requirements of the programme, but it is anticipated that the reports will contain the following:

- Details of the monitoring programme and of the type of construction activities undertaken during the monitoring period;
- Presentation of dust deposition rates (and particulate matter concentrations, where monitored) at all monitoring locations;

- Discussion/explanation of any exceedances of the relevant dust standards and of any mitigation applied (where known); and,
- Recommendations for the site manager regarding how dust and emissions can be better controlled thereafter.

IMPLEMENTATION AND MANAGEMENT

Implementation of DMP

The Site Manager shall be responsible for the control of environmental impacts of construction activities.

The Site Manager should be provided with appropriate training so that they are aware of how dust and particulate matter can be generated on site, are aware of the requirements of the DMP and are aware of the routine and emergency procedures designed to control dust emissions.

Site staff should be given 'dust awareness' training, covering the sources of dust and PM on site, the health and environmental impacts of emissions to air, and emissions control measures used.

The Site Manager will keep a site log book or record documenting the maintenance of effective emissions control methods and details of any complaints or incidents, and actions taken.

Emissions control procedures and equipment will only work satisfactorily if carried out or used appropriately. The responsible person shall maintain good housekeeping and ensure that all equipment is well maintained and used appropriately.

Reactive Mitigation Measures

Following reports made by site personnel of visibly elevated concentrations of dust or following dust-related complaints from third parties, it is recommended that an investigation is carried out, documented and appropriate mitigation is applied.

The Site Manager should be responsible for ensuring that appropriate steps are taken to minimise the impacts of the dust event. Appropriate mitigation may include but not necessarily be limited to the following:

- Erect solid screens or barriers around the activities generating the elevated dust/PM concentrations that are at least as high as the dust-generating activity;
- Cover or dampen stockpiles or other sources of dust (e.g. on-site haul roads) to reduce fugitive dust;
- Ensure that site personnel have switched off machinery when not in use and that all personnel are adhering to site speed limits;
- Ensure an adequate water supply on the site for effective dust/particulate matter mitigation (using recycled water where possible);
- Ensure that the other mitigation methods identified in Section 5 are complied with by undertaking visual inspections; and
- Clean up any dry spillages using wet cleaning methods.

It may be appropriate to temporarily suspend particularly dusty site activities where dust

concentrations are high. For example, during abnormal circumstances where dust suppression equipment malfunctions or 'emergency' circumstances.

8.9 Surface Water

As part of the demolition, Walters will study the drainage layout information before any demolition works on site are started.

This plan will determine the necessary arrangements to manage and control surface water to avoid pollution of the surrounding drainage network.

Mitigation arrangements and measures may include:

- Silt traps will be established by covering and protecting the storm drainage on site
- Regular checking of the membranes used to stop any solids from entering the drainage system
- Changing the socks placed around the drain lids
- Changing the membranes under the lids on a regular basis.

Pollution prevention measures will be put in place to ensure that run off from the works do not enter the sewer network or river/bay (e.g., spill kits on site and silt fencing) or impact the species that the river/bay supports (e.g., fish, birds, otter).

8.10 Contaminants

Our management and workforce are experienced in the identification and management of contaminants and contaminated wastes.

The site will be walked through prior to any works starting on site and all areas will be checked for COSHH materials. Any materials found will be placed into the COSHH stores and recorded before being removed from site and disposed of in the correct licensed facility.

At the same time as checking and inspecting the building for any contaminants, the operatives will sweep the building looking for needles and drug paraphernalia. Walters will call in needle removal specialists should any spent needles be found.

The structure will require an asbestos survey. This will be studied with any asbestos containing materials removed from the structure prior to the demolition of the building.

Walters will place the double banded fuel bowser and COSHH stores away from any drainage systems on site, and all plant and generators used will carry their own spill kits with drip trays placed under the machines at the end of each shift, and under the generators at all times. The fuel bowser will also carry its own spill kit and drip tray, with any and all drips or spills cleaned up immediately.

An attachment area will be set up on site, which will be fenced off from the remaining site using heras panels the hydraulic hoses will be placed on drip trays and absorbable pads, to prevent any oil contamination entering the ground.

Oils for the plant and equipment will be stored in the COSHH container. When topping up plant and equipment with hydraulic or engine oil, tins will be used to carry the oil to the machine.

In the event of a breakdown of any item of plant, where a fitter is required to repair a machine, the machine will be taken to a non-working part of the site, where the fitter can safely work. They will be provided with a drip tray and spill kit as required.

The drip trays will be stored in an upright position when not in use, and will be wiped out using the oil pads each day. All used spill kit material will be placed into the COSHH bags for correct disposal off site.

Any spills on site, no matter the size, will be reported and recorded by the site management team. As the spill kit material is used it will be recorded and replaced to ensure the project maintains the correct amount of spill kits on site.

In summary the approach outlined below will be followed after all necessary chemical testing has been carried out.

All COSHH materials will be placed in COSHH stores in an area at least 10 metres away from any drainage or from the watercourse.

Potential Contamination

Asbestos:	Segregation; specialist disposal to licensed facility
COSHH materials	Removal to the COSHH stores, recorded and disposed of off site
Hazardous Wastes:	WAC testing and disposal to licensed facility
Made ground:	Sampling & verification testing

8.11 Waste

We are committed to recycling and the re-use of recycled materials and we employ our own crushing and screening resource to help us maximise the re-use potential of site won materials thereby reducing costs and adding value to our Clients projects.

Waste will be removed on a regular basis and stockpiles of waste material will not be allowed to build up on site.

See General Rules below.

Pre-Demolition Audits

Prior to any strip-out or structural demolition commencing, we undertake a 'Pre-Demolition Audit' on all our projects to provide us with detailed information on materials that can be reclaimed and recycled.

This helps us to reduce the cost and environmental impact of waste disposal, bring savings from re-using existing materials and generate earnings from selling those that aren't needed.

Our Pre-demolition audits identify volumes of waste streams so that we can plan our 're-use, recycling and recovery' strategy prior to starting work.

Our audits are bespoke to the project we are undertaking but draw on a wealth of experience and comparable data that has been generated from projects we have undertaken over the years.

Once the above information has been collated, our on site recycling strategy can be determined. Waste sorting and segregation areas which are adequate for the job in hand can be established so that waste streams can be segregated and removed from site to appropriate recycling centres.

Our Pre-Demolition audits not only help us to increase material and labour efficiency, but also to reduce waste and maximize added value.

Site Waste Management Plans (SWMP)

Walters UK Limited develops and maintains a Site Waste Management Plan (SWMP) on all demolition projects.

Our SWMP's purpose is to:

- Improve waste reduction through good practice
- Forecast and improve waste and materials resources efficiency
- Demonstrate compliance with legislation
- Measure performance and demonstrate improvement
- Quantify cost savings
- Collate all relevant SWMP information in one location – i.e. add to our body of knowledge!

In developing the SWMP the following stages are undertaken:

- Information is collated in respect of project information, holders of duties, types of waste to be generated and quantities of waste envisaged.
- Site rules are developed to control the selection, segregation, development and storage of waste.
- Waste Management targets are developed for the project
- Types and Quantities of waste are measured monitored and recorded.
- Data on recycling is recorded.

Upon completion of the project, actual quantities of waste recovered is summarised and compared to the target quantities to increase the body of knowledge and provide further guidance and best practice information for use on future projects.

General Rules

- Waste must not be buried, burned or dumped.
- Waste must be separated into the correct categories and disposed of in the proper manner.
- Waste should be stored in suitable containers, when appropriate, to protect it from escaping (e.g. by wind blowing). The container must be marked with a sign which indicates its particular contents.

- Waste should be stored such that it is safe against corrosion, wear or damage to containers, accidental spillage or leakage, waste blowing away or falling while stored or transported, scavenging of waste by vandals, thieves, animals etc.
- Soft strip waste streams will be created to help achieve our recycling rates and prevent materials being sent to landfill.
- Different categories of waste should be segregated to prevent mixing of incompatible wastes. Site employees should be aware of the location of tanks, receptacles etc. designated for the storage of the various wastes. Waste tanks should be on concrete bases and bunded to prevent the egress of waste oil etc. into the ground.
- All containers left outside for collection should be secured or sealed to resist the effects of the weather.
- Ensure that waste products are deposited in the designated receptacles and that the receptacles are not overloaded.

8.12 Recycling

In accordance with our waste management objectives outlined above and our Project Specific Earthworks Specification, we will always seek opportunities to recycle materials which would otherwise have been removed from site. In doing so, we will seek to improve the carbon footprint and sustainability targets of the project.

We will seek to investigate the following opportunities:

- To separate and segregate the soft strip materials into waste streams to maximise the recycling of the waste materials
- To pulverise the concrete and brick/block arising
- To store such materials in suitably sited stockpiles
- To send this material for crushing for use as quality aggregates
- To recycle all iron and steel materials which are mixed into the existing fill materials.

We continue to proactively investigate the use of higher percentages of recycled materials thus reducing the need for primary material extraction and reducing transportation costs.

8.13 Working near watercourses/rivers

The structures are to be demolished in their entirety to allow the site to be redeveloped.. Ensuring that no debris or discharge exits the confines of the site is of paramount importance to the successful execution of the project.

The following points have been considered in relation to demolition activities in close proximity to the river:

- All the superstructures will be removed.
- Demolition works will take place within the confines of the site footprint.
- The proposed demolition works activities do not impact the river Taff
- Demolition material will be carefully brought down and into the site

How works will be mitigated:

- Comprehensive soft stripout – the site will be stripped out of all fixtures and fittings back to the masonry/concrete. This will limit the likelihood of windborn debris during the structural demolition phase.
- Piecemeal demolition techniques will be employed to ensure that no debris exits the perimeter of the site.
- The drainage systems around the site will be thoroughly investigated and understood. All gulleys and manholes in the vicinity of the site will be protected with bunds, absorbant pads and silt traps to prevent against the possibility of any debris, silt or contaminated run-off entering the system and ultimately the watercourse.
- Hardstanding areas will be brushed and scraped regularly to reduce dust and mud deposits. Material collected from this process will be disposed of appropriately.
- Wheelwash areas will be contained and will be located in an area away from the watercourse or drainage
- Waste management will take place in the rear loading bay area and will be contained to prevent against the possibility of windblown debris

8.14 Control of rodents

In order to ensure that rodent infestation of the site does not become a problem, it is essential that a good standard of hygiene are maintained on site at all times.

The following will be carried out:

- (a) all refuse will be removed from site. Refuse will not be allowed to build up on site.
- (b) redundant drains and other disused pipes will be filled with concrete or dug out
- (c) old foundations, cesspits, cavities, etc., will be backfilled with suitable hardcore

Waste food, empty food tins, and other waste which might attract rodents should be stored in bins with tight fitting lids. Bins will be emptied at regular intervals and good housekeeping will be of paramount importance at all times.

9.0 Carbon Footprint/ Sustainability

As committed by the Walters Group Sustainability Policy we will endeavour to undertake the works using sustainable arrangements and practices.

The attention of our procurement departments and our supply chain will be focussed in developing and including sustainable arrangements which will have a positive and improving effect on the carbon footprint.

When ever possible Walters will use local labour, providing the operative has the correct site training card. For arisings off site, Walters source local transport and a local recycling facility to help reduce our carbon footprint.

10.0 Stakeholders

We recognise the project benefits in undertaking our works with an open and inclusive approach. Our no surprises approach seeks to liaise and discuss with all appropriate stakeholders to achieve an integrated and informed project outcome. In particular we would seek to engage with the following authorities and undertakers, securing permits and consents where necessary in a timely manner:

- Natural Resources Wales (NRW)
- MTCBC Planning Department
- MTCBC Highways Department
- MTCB Environmental Health Department
- Emergency services, including police and fire service
- Statutory undertakers and service providers
- Dŵr Cymru/ Welsh Water
- National Grid
- Wales and West utilities
- BT Openreach.
- Transport For Wales
- Local businesses
- Local residents

11.0 Key Performance Indicators

A range of KPIs will be discussed and agreed to measure and record our performance in achieving our environmental management objectives.

Data will be collected and recorded at agreed intervals

12.0 REVIEW

This DEMP will be reviewed at regular intervals and will be updated to take account of any changes or new circumstances which might be relevant.

The review will take account of our performance against objectives and set further targets to encourage continuous improvements.