

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN INTERCHANGE 26 Cleckheaton Rev 5.



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2 Key Information

Customer	OPUS Land (North)
Address / Location	Bradford
Project title	Interchange 26

Key Contacts		
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Key Legislation.

The works as detailed in the remainder of the document will be completed in line with the Acts, regulations & guidance as identified below:

- HASWA - 1974.
- The management of health and safety at work regulations – 1999.
- The Environmental Act - 1995
- Control of Pollution Act 1974.
- The Environmental Protection (Duty of Care) Act 1991
- The Environmental damage (prevention and Remediation) Regulations 2009.
- PPG6: Working at Construction and Demolition Sites (2012)
- GPP 4: Treatment and Disposal of wastewater Where there is no Connection to a Sewer.
- GPP21: Pollution Incident Response Planning (July 2017)
- CL:AIRE Definition of Waste - Industry Code of Practice

3 Introduction

3.1 Purpose and Scope

The construction works to be carried out at Interchange 26 Bradford can affect the environment in several ways. It is important to ensure adequate control measures are adopted to prevent harm to the environment and protect human health.

This Construction Environmental Management Plan (CEMP) provides the vehicle through which the environmental impacts associated with the works will be managed and is aligned with GMI Environmental Management System which adheres to the requirements of ISO14001:2015. In summary this plan:

- Identifies the environmental issues associated with the works.
- Sets out the mitigation and management measures for the environmental issues.
- Describes the monitoring of the key environmental issues.
- Describes how the requirements of the CEMP are implemented, particularly with regards to protocols and procedures.
- This plan must be used in conjunction with GMI construction phase management plan

3.2 Aim of the Construction Environmental Management Plan

Successful implementation of this CEMP will help to:

- Limit the environmental impact of the works.
- Ensure a proactive approach to the management of environmental issues with a commitment to continual improvement of the site's environmental performance.
- Ensure full compliance with environmental legislation, environmental contractual requirements, and other environmental obligations.
- Ensure that all staff are aware of their responsibilities regarding management and improvement of environmental issues.
- Meet the requirements of key stakeholders.

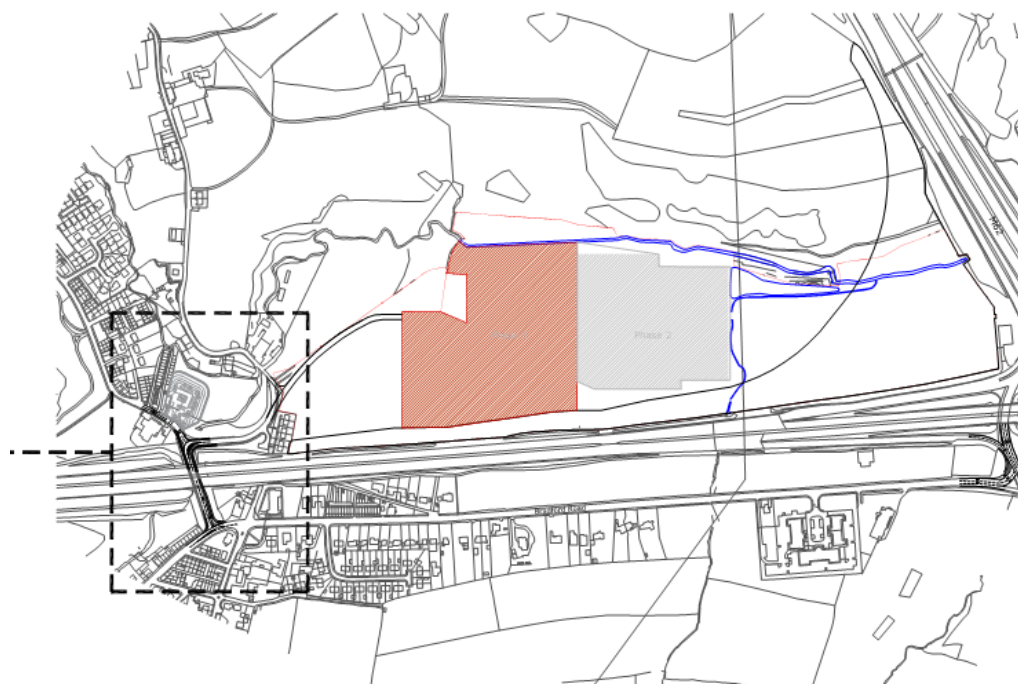
4 Site Location and Description of Works

4.1 Site Location

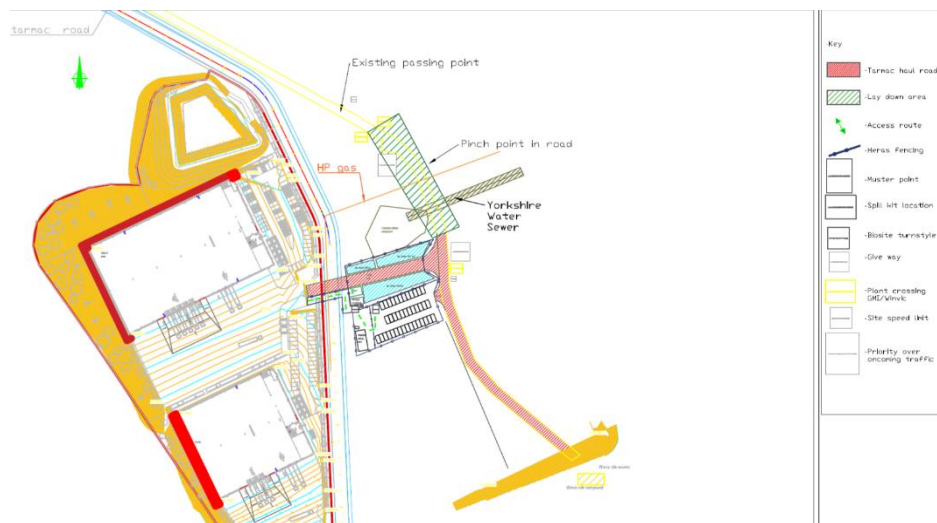
The project is the proposed construction of a warehouse development scheme at North Bierley / Interchange 26.

The new development will be constructed in several phases, these phases will involve the construction of multiple Industrial Warehouse units, an estate access road, S278 road improvements and associated drainage, landscaping, utilities and wider site infrastructure.

Figure 1 – Site Location and Site Plan



Location Plan - NTS



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4.2 Site Description

The development consists of construction of estate road and 278 alterations, including the associated infrastructure works. The development also includes 2 no. warehouse units (5,684m² & 3770m²) with associated civil engineering works.

Description of Works

The Works generally comprise:

- Construction of estate road.
- Alterations to Cliff Hollins Lane, 278 works.
- Utility connections and diversions.
- New build warehouse units.
- External yard construction
- Hard landscaping works

5 Environmental Aspects and Control Measures

During the works to be carried out by GMI, there are various environmental aspects giving rise to risks on site. GMI have an Environmental Impact Assessment document and aspects register which outlines the aspects and impacts likely to cause significant adverse environmental effects if not correctly managed.

- divert clean water away from the area of construction work to minimise the volume of contaminated water.
- Use silt control measure to prevent silt entering the public sewers via existing road gullies.

	
Typical installation of drain guard to storm drain	Completed installation to a gully

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5.1 Water Management & Pollution Prevention

Training is given to all who attend site regarding water management and mitigation measures. A site plan is presented during the induction and explanation of sensitive areas given to all who attend site. This site plan is also on display.

Soil stripping and vegetation removal can increase the volume of contaminated surface water run-off. It can also reduce the area of vegetated land available for disposal of silty water.

The nature of the material on site is free draining. During periods of intense and prolonged wet weather, there will be increased inspections to ensure the control of water runoff from the project.

work activities taking place on site, mitigation measures will be in place to prevent pollution These measures comprise of the following:

- Environmental permit to discharge has not been deemed necessary No water is to be discharged from the project.
- Measures will be taken to prevent silt being discharged. This will include either silt busters or filtration through grassed areas.
- Daily visual inspections will take place and findings recorded. Any anomalies must be reported immediately, and an investigation carried out to determine if the issue is site related.
- Training will be given to the site operatives outlining these mitigation measures.
- Work only to be carried out favourable weather conditions avoiding adverse weather which may cause flooding
- Stockpiles or surplus material will be removed from the area as soon as reasonably practicable.
- Works must be always monitored. If there is cause for concern, then works must be stopped and re-assessed.
- No refuelling within 20m of the watercourse.
- Plant nappies and spill kits should be available in the working area.
- Ensure waste is removed from site after correct Duty of Care checks have been carried out and with correct waste documentation.

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5.2 Noise, vibration & stray lighting, Control of Pollution Act 1974

Noise pollution, vibration & stray lighting has the potential to create a statutory nuisance. This can disturb local wildlife, residents, and businesses.

In the event of a noise complaint, the Local Authority has the power to stop the works if noise is causing a nuisance (**Control of Pollution Act 1974, Section 60 notice**).

The sensitive receptors



Table 1: Sensitive Receptors

Ref	Description	Sensitivity	Closest source of Potential Impact	Approximate Distance to Source (m)
1	6 residential bungalows on Cliffe Hollins lane	Low	Works/construction taking place on Northeast of site.	200 meters
2	River spen water course	Medium	Works/construction taking place on Northeast of site.	137 meters
3	Disused mill on Cliffe Hollins lane	Low	Works/construction taking place on East area of site	250 meters
4	Neighbouring Farm, Off Cliffe Hollins Lane.	Low	Works/construction taking place on North area of site	330 meters

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5	Woodlands C of E primary School	Medium	Works/construction taking place on North area of site	550 meters
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Given the location of the site and sensitive receptor proximity, a section 61 noise consent is considered an unlikely requirement for the works. The activities are unlikely to cause a nuisance or impact residential areas. However, the following control measures will still be applied:

- A Risk assessment will be produced to assess the risk of disturbance on residents and wildlife areas. In accordance with British Standard control of noise and vibration on construction and open sites (BS 5228-1:2009+A1: 2014 and BS 5228-2:2009)
- Ensure plant and equipment is in good condition and well maintained under Provision and use of work equipment regulations 1998.
- There are many general measures that can reduce noise levels at source such as:
 - a) avoid unnecessary revving of engines and switch off equipment when not required;
 - b) keep internal haul routes well maintained and avoid steep gradients;
 - c) use rubber linings in, for example, chutes and dumpers to reduce impact noise;
 - d) minimize drop height of materials;
 - e) start up plant and vehicles sequentially rather than all together.
- Unnecessary noise must be minimized using acoustic barriers or silencers as appropriate. Superior Acoustic performance up to 33.1dB noise attenuation & absorption coefficient of 1.0. In compliance with BS EN ISO 10140: 2:2010.
- Construction activities will be restricted to working hours Mon – Fri 07:30 – 18:00hrs, Sat 08.30 – 13:00hrs. **No construction activities are permitted on Sundays or Bank Holidays.**
- Deliveries must be planned to minimise potential nuisance to the local community and drop heights into hoppers, lorries and other plant must also be minimised.
- The use of white noise and directional reversing warning alarms to be employed on all mobile plant to reduce impact.
- Local Authorities must be contacted with regards to out of hours work.
- Letter drop to inform neighbours and residents of planned activities.
- Any complaints received must be reported and dealt with promptly to the satisfaction of all parties involved.
- No works are planned within 30m of the properties located on the North West corner of the site. However, if circumstances change, and GMI are required to work in the vicinity, GMI will require a vibration assessment to be made, if the works are producing noticeable vibrations, vibration monitoring equipment will be installed. The monitoring equipment will provide a baseline of the vibrations present with no construction activities being undertaken and set an acceptable limit for vibrations while plant is in operation, this limit will dictate items like plant speeds and construction methodology & working methods being used the area.
The environmental monitoring equipment would be installed on site and monitored throughout any operations within close proximity (30 meters).
- Appropriate training and awareness must be undertaken with the workforce to reduce unnecessary noise. All necessary steps will be taken to prevent noise nuisance.
- Peak noise levels will not be reached, regular TBT to take place with operators with regarding the necessary control measures. Control measures include greasing of tracks and components, dampening tracks. Noise activities such as air picking to be restricted to short bursts. In

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accordance with The Control of Noise at Work Regulations 2005 (Noise Regulations 2005).

- The use of anti-vibration tools and equipment will be required as specified in the Control of Vibration at Work Regulations 2005.
- No works are planned to be conducted during hours of darkness on the project, in the event that lighting is required on evenings and mornings for access and egress, the lighting will be downward facing to limit the spread of light to the compound which will be located well within the development adjacent the YW compound. Working hours will be reduced to suit daylight hours during the winter months, it is impractical to illuminate this large site. This should prevent nuisance lighting from becoming an issue. PIR lighting is to be in place to minimise any unnecessary light pollution. No requirement for security lighting as the site will be operated at night vision CCTV which will be monitored off site and will notify GMI staff of any alerts.

Dust & Fumes

Dust from site operations can settle on neighbouring properties which may cause eye irritation, exacerbate asthma or affect plant growth. In addition, black smoke from plant and equipment is likely to cause damage to human health.

Uncontrolled dust and air emissions can lead to valid complaints and the Local Authority has the power to stop works if dust is causing a statutory nuisance. The following control measures will be applied:

- Sensitive receptors will be identified.
- Check weather conditions and prevailing wind direction to plan in activities that may cause dust to arise. If weather conditions are not favourable, carry out activities on a different day.
- Plant and equipment must be maintained regularly to reduce any discharge of impromptu fumes or smoke.
- Any cutting and grinding operations on site must be adequately shielded or wetted to prevent dust.
- Fine, dry materials must be stored within buildings, where possible or protected from wind.
- Silos and stockpiles must be positioned away from residential areas and watercourses.
- Stockpiles will be graded and dampened down to prevent windblown dust.
- Dry, dusty materials must either be cleaned up or damped down.
- Burning / fires must not occur on site.
- Roadways and surfaces must be swept and damped down with water at regular intervals where dust may be a problem.
- Drop heights into haulage vehicles etc must be minimised and dry materials leaving site must be sheeted. All vehicles must adhere to on site speed limits.
- Install wheel-washing facilities to reduce mud drag out onto the public highway.
- Monitoring can be carried out using fixed or portable meters. These do not necessarily have to be expensive.
- Visual checks and recording findings is the most common way of monitoring dust leaving the

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site boundary. These can be backed up with photographic evidence.

- The workforce must be trained to reduce dust and air emissions from onsite activities. Any complaints must be reported at the earliest available opportunity and dealt with promptly to the satisfaction of all parties involved.
- Site rules are in place which indicate to switch off plant when not in use to reduce exhaust emissions. All plant must have recorded maintenance programmes,
- Haul routes will be planned with minimum distances.
- There will be consideration of using electrical equipment rather than internal combustion engines.
- Electricity suppliers will be contacted early in project preparation so electrical supply is available to negate use of generators

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- All dust and air quality complaints will be recorded and acted upon. The cause will be identified, and appropriate measures taken (as outlined above) to reduce emission in a timely manner and recorded.
- The contractor will ensure that all operatives employed on site: understand their responsibilities for minimising the generation of particles and dust; appreciate the effect of dust on health and the environment, the benefits of reducing dust generation and the methods to reduce dust generation; and include adequate measures within all risk assessment and method statements where dust generation may be a hazard.

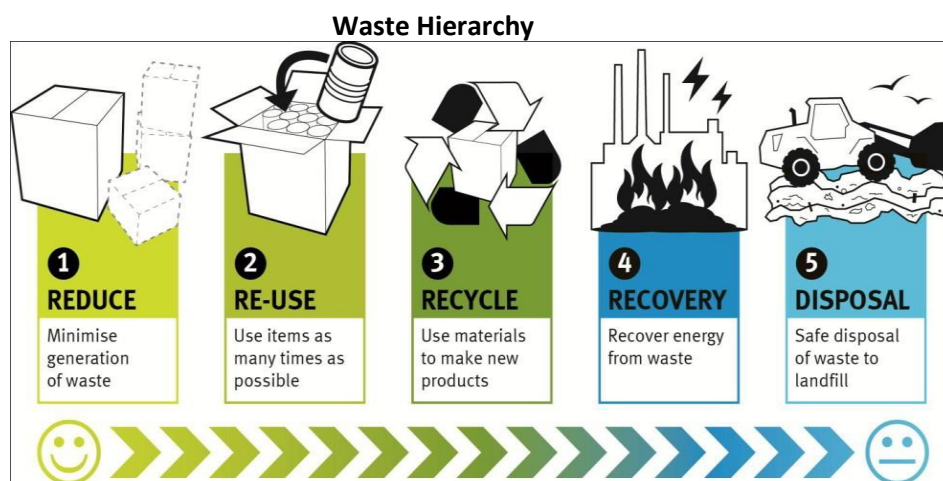
5.4 Waste Management

A Site Waste Management Plan will be produced which outlines measures to be taken to reduce waste, the expected generated waste streams, associated permits & licences, and a running tally of waste streams and associated volumes that has actually left site.

Waste skips / containers will be labelled and in good condition. They will be stored securely to prevent escape of waste to the environment, and in an appropriate area and outlined on the site plan.

Hazardous wastes must be stored separately from other hazardous and non-hazardous wastes.

The waste hierarchy must be adopted on site



Ref: Pollution Prevention Guidelines: PPG1, July 2013

- **Prevent** – e.g. ensuring accurate measurements are taken when ordering materials, not over-ordering and storing materials securely to prevent damage from the elements or site traffic.
- **Re-use** – e.g. re-using whole bricks, re-using uncontaminated naturally occurring material on site and re-using timber off-cuts.
- **Recycle** – e.g. using recycled aggregates on site, and sending material to a recycling facility.
- **Recover** – e.g. sending material to an Energy from Waste (EfW) Facility.
- **Disposal** – e.g. disposing of waste at a landfill or incinerator which does not recover energy.

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Any waste required to be removed from site will be accompanied by a Waste Transfer Note (WTN) for non-hazardous waste, or a Hazardous Waste Consignment Note (HWCN) for Hazardous Waste. Waste documentation will be retained for the legally required timeframe (2 years for WTN, 3 years for HWCN).

Duty of care checks shall be carried out on waste contractors to ensure permits and licences are valid and have not been revoked by the Environment Agency as defined by the Environmental Protection (Duty of Care) Act 1991

All who attend site will be trained in the waste management procedures for the site.

5.5 Ecology & Biodiversity

Site Clearance

The project comprised of green field which has been cleared to allow the development platform to be stoned up. E3 ecology was appointed to carry out ecology surveys to identify nesting birds and give recommendations to mitigate against impact caused by the site clearance.

Nesting Birds

Bird nesting season takes place between March and November. Ground nesting birds are highly likely to be present on the site in its current state. An ecologist has been appointed to carry out a nesting bird survey and make recommendations with regards to stripping of vegetation and preventing any further nesting birds. Measures will be taken to prevent any further birds from nesting including scare tactics which consist of having machine presence in areas to make them seem “busy” and less desirable for nesting.

Invasive Species

Himalayan Balsam if encountered must be managed to prevent spread onto neighbouring properties.

- ☐ Identifying areas contaminated with Himalayan Balsam.
- ☐ Plant used for the restoration activities are to be specific to this job and not used in other areas of the site.
- ☐ Experienced and competent operatives are to be used which have dealt with invasive species in the past.
- ☐ Training will be given regarding Himalayan Balsam, good hygiene, biosecurity, and preventing the spread.
- ☐ Biosecurity will include thorough washing down of Plant in a designated area before it leaves site.
- ☐ Ensure the conditions within the Environment Agency RPS 178 are adhered to.

5.6 Stockpiling

Topsoil and other materials will be stocked on the site during the works. Control measures include:

- ☐ The perimeter of the stockpile will be delineated with an earth bund where possible. This will prevent any fines running off on to the site.
- ☐ The stockpile will be fenced to protect against other site activities.
- Materials will be stockpiled at least 5 meters away from trees or native vegetation, and never pushed up around the base of trees.
- ☐ Stockpiles will be graded and dampened down to prevent windblown dust and reduce run off.
- ☐ The time materials are stockpiled will be limited to prevent anaerobic conditions.
- ☐ Materials will not be stocked for more than 1 year.

5.7 Roadway Control

Traffic on and off site will be controlled. A Site Safety Plan will be produced identifying all key safety requirements including traffic movement onto and around the site. The main measures will include:

- Site deliveries and traffic/plant movement activities on site will be restricted to Monday – Friday 8.00am to 6.30pm and Saturday 8.30am to 2.00pm. **No deliveries or noisy construction activities permitted on Sundays or Bank Holidays.**
- ☐ Muck away activities will be organised so that spoil is stockpiled and periodically removed from site.
- ☐ All vehicles will remain on temporary hard standings whilst on site.
- ☐ All vehicle wheels will be checked by the Gateman before leaving site and will be washed and brushed clean as necessary in the wheel wash area if required or pass through the provided wheel washing plant. Any residual matter will be swept and washed off the adjacent Highway.
- ☐ All vehicles off-loading and loading will be carried out within the site boundary without impeding the highway.
- ☐ Whenever practicable site traffic will be directed to avoid residential areas.

5.8 Site Audits

The implementation of the CEMP will be checked through regular site inspections and through environmental audits. An audit programme will be implemented and takes into consideration:

- ☐ The environmental importance of the project activity concerned.
- ☐ The results of previous environmental audits.
- ☐ Occurrence of any project environmental non-conformances.
- ☐ Concerns raised by the project team or interested parties.

A site inspection shall be undertaken once a fortnight during these works to ensure that the works are being undertaken in accordance with the CEMP. The inspections will cover the key themes such as fuel storage, ecological controls, waste management, noise, dust and air quality, etc.

5.9 Emergency Preparedness & Response

There is the potential for activities on site to cause minor spills leading to pollution of the environment. In order to minimise these situations, GMI have procedures in place relating to refuelling, spillages, and waste management.

Spill kits are held on site in designated locations, which may change with time, but which will be agreed with the site manager and outlined during the induction and spill response toolbox talks.

6 Environmental Policy, Responsibilities and Communication

6.1 Environmental Policy

GMI have an environmental policy which will be displayed and adhered to by all who visit site this outlines the scope of GMI, and a commitment to protect the environment, comply with environmental legislation and minimise the use of natural resources.

6.2 Responsibilities

Role	Environmental Responsibilities
The Environmental Manager / Site Manager	• Develop, implement and maintain the Environmental Management Plan. • Conduct compliance reviews, review and update the Register of Legislation, review and update the Aspects Register; • Undertake regular site inspections (fortnightly), supported by others as appropriate; • Conduct formal environmental audits: ○ Fortnightly audits are planned, however these may increase or decrease depending on site performance. • Report on Contractor's environmental performance; • Ensure that sound environmental performance is achieved; • Day to day management and monitoring of all environmental related activity; • Reporting to the Site Manager / Project Manager as appropriate;
Environmental Manager	• Conduct environmental audits • Review and update CEMP
Project Manager	• Ensure the review of the CEMP is carried out • Overall responsibility for the Stage 3 works; • Ensure that the EMP is prepared and that the works are undertaken in accordance with it and the associated management plans and method statements; • Ensure compliance with all relevant legislation and environmental rules;
Site Manager	• Undertake the day to day management of the works ensuring that operations are carried out in accordance with the CEMP.

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Operatives

- Undertake tasks in accordance with method statement briefings, tool box talks and principles set out in the environmental induction.
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6.3 Toolbox Talks

Tool Box Talks will be delivered on specific topics relevant to the works and mitigation measures. These may include waste management, pollution prevention, spill response, etc. as required. Toolbox talks will be delivered to all operatives on site, and records kept for the duration of the project.

6.4 Internal Environmental Communications

Staff will be kept informed of the environmental policy and environmental issues relevant to the EMP through a range of means, including a combination of meetings and different media. In addition, daily briefings will be held on site and also regular meetings with the client to discuss health, safety and environmental matters. The aim is to provide sufficient information to raise and maintain awareness of the key environmental issues associated with the works and promote continual improvement.

6.5 External Environmental Communications

Relevant external communications will be undertaken with regulators and stakeholders as required. Any monitoring results or issues relating to permitting shall be reported in a timely manner. Should any complaints arise from off-site during the works, they will be managed effectively, and mitigation measures implemented to ensure further complaints do not arise.