

SNOWDONIA VISUAL IMPACT PROVISION (VIP) PROJECT

CONSTRUCTION & ENVIRONMENTAL MANAGEMENT PLAN - BLAEN CEFN PROJECT

C0233-HUK-GES-CG-PL-W-0001

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Document History:

Revision	Date	Prepared	Checked	Approved	Reason for Issue
P01	26/06/2023	DGM	DMY	LBR	For Acceptance
P02	18-10-23	DGM			



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1.0 Executive Summary

1.1 Purpose

This Plan defines the HOCHTIEF (UK) Construction Ltd (HTUK) system for managing the environmental controls on the Blaen Cefn project (hereafter called the Project).

It shall be maintained and used for:

- Providing staff with instruction and guidance on the specific arrangements for managing and monitoring environment related activities.
- Issued to the Client, Designers, Subcontractors and Third Parties for their information and use.
- Induction and awareness training.
- Demonstrating and monitoring compliance with legal and contractual requirements; identifying where it will be necessary to obtain authorisation from relevant statutory bodies.
- Provides the mechanism for the approach for mitigation to ensure that adverse effects on the environmental and local communities are minimised.
- Provide a framework for compliance auditing and inspection to ensure the agreed environmental aims are being met.
- Ensure a prompt response to any non-compliance with legislative and planning conditions, including reporting, remediation and any additional mitigation measures required to prevent a recurrence

1.2 Scope

This document shall cover the management of environmental aspects and impacts for the Project .

1.3 Preparation, Development & Implementation

The Project Director shall ensure that this Plan and its supporting documentation are:

- Developed to define our standard and project specific procedures and processes and the arising issues are correctly handled in accordance with relevant legislation;
- Reviewed, authorised, and issued for use or made available to staff and sub-contractors;
- Briefed to project staff so that they are aware of its content and requirements;
- Informs site inductions and awareness training;
- Reviewed monthly and updated to reflect changing circumstances or when there are significant changes to work scope or legislation which affect the content of this document.

The requirements of this Plan and its supporting documents shall be mandatory for all project staff.



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1. General Information

2.1 Standards and Requirements

This Plan is designed to comply with the requirements of:

- ISO 14001 Environmental Management Systems
- ISO 50001 Energy Management Plan

Our IMS is registered with BSI as complying with the following management system standards:

Standard	System	Certificate	Registered Scope of Work
ISO 14001	Environment	EMS 70489	The provision of design
ISO 50001	Energy	ENMS 623421	and construction services for civil engineering
OHSAS 45001	Health & Safety	OHS 95055	projects including Joint Ventures

2.2 Status

The policies, minimum standards, procedures, forms, and associated documents contained in the Integrated Management System (IMS) define how the HTUK business operates. Each document is mandatory, and must be strictly observed, supported, and maintained by all personnel in each functional area of the business:

Associated Documents

Documents contained in the HTUK IMS which may be useful to refer to in the execution of this management plan. This list is not exhaustive

HTUK Minimum Standards:	A suite of documents detailing minimum
	standards in health, safety & environment
	required by HTUK and the supply chain
Health & Safety	00000-HUK-GHS-XX- ST-Z-0001
Plant	00000-HUK-GHS-XX- ST-Z-0002
Premises	00000-HUK-GHS-XX- ST-Z-0003
Occupational Health	00000-HUK-GHS-XX- ST-Z-0004
Environmental Procedures:	Procedures giving guidance for staff on specific
	topics
Ecology & Biodiversity	00000-HUK-GHS-XX- PC-Z-0014
Waste Management	00000-HUK-GHS-XX- PC-Z-0037
Pollution Prevention	00000-HUK-GHS-XX- PC-Z-0016
Energy Management	00000-HUK-GHS-XX- PC-Z-0042
Earthworks & Contaminated Land	00000-HUK-GHS-XX- PC-Z-0046
Nuisance Management	00000-HUK-GHS-XX- PC-Z-0047
Archaeology & Heritage	00000-HUK-GHS-XX-PC-Z-0049
Appointment of Key Personnel with	Additional roles to be filled by the site team
SHE Responsibilities	where required. Details of function and
	competency requirements
	00000-HUK-GHS-XX-PC-Z-0048

Project specific documents will be prepared to support this CEMP, and others may be included as appropriate.





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2.3 Project Objective

The objective of this Project is to provide temporary accommodation for up to 100 construction workers who will be employed on the Visual Impact Provision in Snowdonia (SVIP)

Please refer to Appendix Figure 1.1 Proposed Project Overview for further information.

2.4 Scope of Works

HTUK are responsible for the Tunnel Contract and shall carry out the detailed design, supply, installation, and commissioning of the works which include but are not limited to:

- Environmental and ground investigation surveys
- Temporary access routes (with potential highways improvements) and construction compounds/ laydown areas to facilitate construction activities.
- · External works including access roads, drainage, lighting.
- Utility diversions, protection, and new supplies.
- Landscaping and planting.
- Removal of equipment and site infrastructure at the end of the wider SVIP project
- Reinstatement of the site.

2.5 Construction Methods

The project will entail a preliminary topsoil strip of work areas with excavated soils stock piled on site for subsequent reinstatement works. The soil movements will be undertaken in accordance with the strict bio-security arrangements to prevent the spread of invasive species on site. Silf fencing will be used extensively to control the creation of silt laden surface water runoff caused by the excavation works.

Granular materials will be imported to create a suitable hardstanding for the main accommodation village site and temporary access road. Approximately 5000 m3 of various grades of granular materials will be imported to undertake the work.

Prefabricated cabins and other buildings will be delivered to site and arranged on the hardstanding area to create the accommodation village. External lighting to be installed will be designed to minimise light spill and minimise disturbance to bats in the vicinity of the accommodation village.

Table 2.5 Outline Work Activity

Table 2.5 Outline Work Activity	
Description	Duration
Mobilisation and site set up	8 days
including installation of silt fencing	
Access road and compound soil strip and soil stockpiles created.	48 days
Preliminary granular material imported to create working surface for access road and main compound hardstanding.	
Utilities and prefabricated buildings installed.	48 days
General Re-instatement	13 days
Demobilise	5 days





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3.0 General Environmental Requirements

The controls specified in this section are designed to:

- Meet legal and contract requirements;
- Limit environmental impacts;
- Deal with unexpected environmental issues.

3.1 Environmental Aspects & Impacts Assessment

An initial Environmental Assessment for the project was carried out by National Grid as part of the planning submission. This has been developed by HTUK, and the mitigations identified and included.

A preliminary environmental assessment shall be completed for the worksite enabling site specific mitigation measures to be developed. The mitigation measures arising from that assessment process shall be included within the CEMP and shall be taken into consideration when developing risk assessments, method statements and more generally when planning the works.

3.2 Hours of Work

The core working hours for general construction work are limited to:

Monday to Friday: - 0800 to 1800hrs

Saturday: 0800 to 1300 hrs

There shall be no working on a Sunday or bank holidays unless otherwise approved by the relevant planning authority. In all instances there shall be no movement of excavated material offsite during weekends and no HGV deliveries outside of the core working hours.

3.3 Licences & Consents

A number of consents are required for the Contract.

The Project is within the planning jurisdiction of Snowdonia National Park Authority. Planning permission for the Project under the Town and Country Planning Act 1990 has been applied for.

HTUK have also applied for various supplementary consents including:

- Water discharge consent;
- Land drainage consent;
- Sustainable urban drainage consent;
- Site access formation consent (s184)

3.4 Objectives & Targets

Each year the HTUK business shall set Objectives and Targets to meet the needs of the business and to reflect the outcome of the previous year's Performance Review. The agreed Business Objectives and Targets shall be communicated to all staff once they are finalised. To support the achievement of these the Project Director and project team shall define and communicate a set of project specific actions and initiatives.

3.5 Roles & Responsibilities

All individuals working on the Project are responsible for ensuring that the works that they undertake do not affect the environment around them. Environmental responsibilities shall be included in individuals job descriptions. Specific site roles shall be appointed in line with Appointment of Personnel with SHE Responsibilities 00000-HUK-GHS-XX-PC-Z- 0048.

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Role	Responsibilities
Project Director	Overall responsibility for ensuring conformance with the CEMP and incident investigation
Environment, Sustainability & Consents Manager	 Reviewing, updating, and issuing the CEMP Incident investigation Reviewing risk assessments & method statements (RAMS) Site inspection & reporting Reviewing applications for environmental, consents & permits Assisting with internal and 3rd party audits Maintaining a consents register Liaison with 3rd parties and licensing authorities Sensible monitoring Ensuring compliance with consents
Environmental Manager	 Ensure management plans are implemented Oversee environmental mitigation Site inspection & reporting Preparing and submitting applications for environmental consents and permits Organising environmental surveys and progress monitoring
Ecological Clerk of Works (ECoW)	Overseeing ecological mitigation worksUpdate reports for Local Authority
Environmental Co- ordinator (site personnel appointment)	 Assist the SHE team in the reporting and inspection processes Deliver TBT to workforce Ensure work processes are carried out in accordance with the CEMP
Office Manager	 Procurement in line with HTUK minimum standards & sustainability policy. Compiling the data for to meet sustainability reporting requirements
HTUK Transport Safety & Control Officer	Implementing and updating the CTMP
Archaeological Clerk of Works	Responsible for overseeing works that may impact on archaeological heritage and ensuring mitigations are in place
Arboriculture Clerk of Works	Overseeing all tree works and ensuring any mitigations are in place

Job Title	Contact Details
Project Director	doug.pratt@hochtief.co.uk
Project Manager	david.murray@hochtief.co.uk
Site Agent	gwilym.dickson@hochtief.co.uk
Section Engineer	ryan.joyce@hochtief.co.uk
Environmental Manager	Jose.Jimenez-Garcia@hochtief.co.uk
_	+44 07791244602
Landscape Architect	scott@westcoast-land.co.uk





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3.6 Competence, Training & Awareness

All personnel commencing work on the site, including subcontractors, shall attend an induction training course. The course shall include training in the following areas:

- Environmental legislation and its relevance to this project
- Individual environmental responsibilities and environmental constraints to specific operations.
- Areas of environmental sensitivity, how activities may affect them, methods, and timing necessary to protect them and activities to be avoided.
- Procedures and equipment to use in case of an incident

Occasional Visitors and delivery drivers will receive a tailored site induction that is pertinent to their visit.

Regular visitors to site must undergo full site induction.

Task Briefings and Toolbox talks (at least one per month should be environmental) shall be provided to the workforce at the relevant time to supplement the induction. Records shall be kept showing the names of all personnel attending induction courses, Task Briefings, and Toolbox Talks.

Members of the site team who have specific HSE responsibilities, e.g., first aider, fire coordinator will be provided with the necessary training to undertake their roles. Some roles may require a level of professional competence to be demonstrated. Refer to *Appointment of Key Personnel with SHE Responsibilities* -00000-HUK-GHS-XX-PC-Z-0048.

3.7 Communication

3.7.1 Internal Communication

The HTUK project management team shall review Environmental issues as part of their regular weekly planning meetings to discuss compliance with the CEMP and to co-ordinate forthcoming activities. Co-ordination and liaison of day-to-day environmental matters shall be carried out between each Contractor's nominated manager or supervisor and managers from the project team. All contractors (or their representatives) must attend the daily Start of Shift briefing ensuring all up to date information is passed to all their employees and staff prior to work commencing.

HTUK shall hold planning/progress meetings with each Contractor when safety, health, environment & sustainability (SHES) shall be the first item on the agenda. At these meetings matters related to the assessment of risk or proposed methods of work shall be reviewed, as shall the interface with other Contractors' activities. The workforce shall be reminded of their responsibilities and duties towards the environment initially as part of the site induction and then via Toolbox Talks, daily Start of Shift briefings and Task Briefings as required.

3.7.2 External Communication & Stakeholders

HTUK shall throughout the contract maintain liaison with Statutory Authorities as required. Early consultation shall be sought with all statutory authorities and NGOs.

3.7.3 Site Works

Regular progress meetings shall be held with sub-contract supply chain to discuss the status of the site works.

3.7.4 Records and Documents

Records of external communications and minutes of meetings shall be issued through Document Control and stored on Themis.

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3.8 Audit & Inspections

3.8.1 Daily Inspections

Daily site inspections shall include monitoring conformance with the requirements of the CEMP. Site inspections shall be recorded on the HOCHTIEF Active Reporting Tool (HART). Checks on equipment shall be undertaken to reduce the risk of incidents occurring (for example oil leaks). As a minimum the following equipment and receptors shall be inspected:

- fencing,
- · waste storage facilities
- oil separators
- chemical storage facilities
- bund integrity
- foul water storage facilities
- silt traps
- drainage ditches and watercourses or other nearby environmental receptors
- storage vessels (including pumps, gauges, pipework, and hoses)
- secondary containment (for example, secondary skins for oil tanks)
- spill response materials
- equipment with potential to leak oils and other liquids, for example, compressors and transformers; and
- signage, fencing and condition of any diverted Public Rights of Way and associated temporary bridges.

3.8.2 Weekly Inspections

There will be weekly inspections. The objective of these weekly inspections is to verify and monitor contractors daily site inspections.

The Contractors weekly inspections shall include, in addition to the daily inspection list the following:

- Reviewing the daily risk assessment forms
- · Ensuring that faults and defects are identified and rectified
- Providing data for performance monitoring.

Environmental performance data shall be collected and collated into HART and reported at intervals to meet HTUK reporting requirements.

Immediate action including ceasing of all works, if necessary, shall be taken should any incidents or non-conformance with the CEMP be found during inspection.

All monitoring reports shall be made available to statutory and non-statutory bodies on request.

3.8.3 Monthly Inspections

A monthly inspection shall be carried out by members of the Safety, Health, & Environment team. This inspection regime is the minimum that is required, additional inspections may be carried out by sub-contractors and statutory authorities as required.

3.8.4 Directors Tours

Site tours by members of the HTUK Senior Management Team shall take place on a quarterly basis as a minimum.

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3.8.5 Audits

HTUK Internal audits shall be carried out in accordance with the Audit Procedure Policy. An audit schedule for the project shall be prepared by the Head of Quality. These may be carried out jointly with the Client, or separately.

The Project may be subject to third party audits at intervals through the duration of the project.

All staff employed on the contract shall give their full support to the audit and inspection process.

3.9 Security

Security measures to be implemented for these works, subject to appropriate planning approvals, are as follows:

- high perimeter fencing or hoarding for site security and public safety, placed so that public rights of way are maintained or appropriately diverted.
- · motion sensor lighting in areas of high security risk.
- Immobilisation of plant out of hours.
- removing or securing hazardous materials from site.
- securing fuel storage containers and preventing unauthorised use of scaffolding.

The local police will be consulted on the proposed security measures and arrangements will be reviewed throughout the period of the Project.

3.10 Welfare

Appropriate and adequate welfare facilities will be provided and will be maintained in a clean and tidy condition.

Waste will be managed so as not to attract rodents. Should rodents be seen on site then pest control measures will be implemented, and the local environmental health officer will be informed.



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4 Specific Environmental Requirements

4.1 Archaeology and Cultural Heritage

The project is on previously developed land. The Project therefore has limited potential to result in direct and permanent impacts to buried archaeological and cultural heritage remains.

4.2 Soil Management Measures

During construction the principal impacts relate to the potential for contamination of soils or controlled waters through spillages during construction and damage to soils through construction activities and excavation works. Measures in relation to pollution prevention are outlined in Section 4.6 of this CEMP.

In addition to pollution prevention protecting the structure of soils is equally important. The DEFRA Construction Code of Practice for Sustainable Use of Soils on Construction Sites 2009 provide guidance for best practice and this will inform soil handling practices on site.

Should any contaminated land be encountered it will be stockpiled separately; covered to prevent wind or water spreading contaminants to the wider environment; tested, at an accredited laboratory and sent for remediation/ disposed of in accordance with regulatory requirements.

4.3 Contaminated Land

Prior to the start of any construction works, detailed ground investigation will be undertaken to ascertain the ground conditions, including the assessment of soil conditions. The investigation will include the assessment and potential remediation of any contamination that might be encountered.

When temporary stockpiling excavated materials any material suspected to be contaminated will be stored separately from uncontaminated materials until verification testing has been undertaken. Once verification of the materials has been obtained, arrangements will be made for their remediation or disposal, in line with the HTUK Waste Management Procedure (00000-HUK-GHS-XX-PC-Z-0037).

4.4 Ecology

HTUK recognises the importance of protecting wildlife during construction and shall take all practical measures to achieve this. A Preliminary Ecological Assessment (PEA) has been carried out the findings from which has informed this document.

4.4.1 Protected Species

General

A Habitat Regulations Assessment has been undertaken for the works (ref. Atmos Consulting, Habitat Regulations Assessment, Blaen Cefn Temporary Accommodation October 2023). All personnel will be informed of the ecological sensitivities of a location at Site Induction and there will be regular Toolbox talks as the project progresses.

Prior to any stage of construction works commencing an Ecological Clerk of Works (ECoW) will be responsible for ensuring that all recommended mitigations are implemented.

All areas of habitat will be restored to at least equivalent habitat condition post-construction. Restoration will seek to replace vegetation with the same species as far as is practicable and will be detailed in the Landscape Management Plans.



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Bats

Where night-time working is essential only the minimal level of night-time lighting for safety purposes would be implemented and these would be directed away from linear features that could be used by bats for navigation. Bat boxes will be installed to increase the availability of roosting sites.

Embedded mitigation includes the following:

- The use of artificial light will be minimised to that required for safe working with down lighting to minimise light scatter. Night-time lighting during construction phases will be avoided in all ecologically sensitive areas. These dark areas will reduce the impact on bats allowing free bat movement foraging and roosting sites.
- Cowls will be fitted to lighting to assist in preventing light spill on to sensitive habitats.
- Bat impact mitigation measures are detailed in a separate project specific report drafted by Atmos Consulting.

Birds

Habitats suitable for breeding birds will be removed outside of the breeding season (March to August inclusive). Any habitats that are to be removed during the breeding season will be checked by an ecologist immediately prior to removal.

Bird boxes will be installed to compensate for the loss of breeding sites.

Ecological watching briefs shall be used where the impacts on habitat suitable for polecat or hedgehog cannot be completely avoided. This includes areas inside the site boundary that include hedgerow, scrub, and rough grassland.

Following the completion of all construction works, the land temporarily use within the working area will be fully reinstated as near as practically possible to its former condition or as agreed with landowners and stakeholders in advance (this will include the reinstatement of most stretches of drainage ditches and existing culverts).

4.4.2 Invasive Species

Invasive species have been identified on site. Indian Balsam is the most abundant invasive species identified, but there are also stands of Japanese Knotweed.

Measures contained in relevant Welsh Government, Natural Resources Wales best practice guidance on the control and removal of invasive weed species will be implemented.

HTUK shall ensure all site personnel are vigilant with regards to awareness of measures required for effective Biosecurity through site briefings, Inductions, training, and Toolbox Talks.

A specialist contractor has been appointed to eradicate invasive plant species from site (Japanese Knotweed Removal Wales Limited 2015). The seven year programme of work to eradicate invasive species from site was started in September 2023.

4.4.3 Tree & Hedgerow Protection

An Arboricultural survey is being undertaken, this will detail the location and nature of protective fencing, signage, timings, supervision requirements and methods of works and other protection measures.

The National Joint Utilities Group Guidelines for Protection of Trees will be followed.

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An adequate protection zone in accordance with the guidelines is to be set up around the trees to ensure branch and root system protection. The protection zone shall be cordoned off.

A qualified arborist will be employed to verify adherence to the guidelines and that adequate protection is in place.

All trees and hedgerows vulnerable to the proposed works will be protected with temporary protective fencing allowing for the minimum protective distances in accordance with British Standard (BS) 5837: 2005 'Trees in relation to construction'. Protective fencing will prevent traffic within the canopy spread of the trees and ensure that compaction of roots is kept to a minimum.

All trees for removal or trimming shall be clearly marked and agreed on site with the Project Manager prior to removal or trimming. All tree cutting/surgery and tree planting shall be conducted by specialist contractors approved by the Client prior to the Works commencing. If pruning will be undertaken under the direction of a qualified arborist.

Tree and shrub (or other bird nesting material) removal will be examined for active nests immediately prior to removal.

Trees which will have been removed during the construction period will be replaced as part of the landscape mitigation planting. Trees will not be planted above or within 3m of utilities to avoid the risk of damage to the utilities by tree roots and to provide clear access for maintenance.

A landscaping management plan has been produced detailing the treatment of the existing landscaping on site and new landscaping proposed as part of the site restoration works. Local provenance trees will be selected for and conifers avoided. Areas of habitat will be restored to equivalent habitat condition post- construction. mRestoration will seek to replace vegetation with the same species as far as is practicable.

4.5 Water Management

4.5.1 General

Water protection measures will be informed by the technical guidance set out in CIRIA C648 Control of Water Pollution for Linear Construction Projects. The mitigation measures required will be communicated to the work force and supply chain as appropriate.

4.5.2 Site Drainage

The design of the drainage will pay particular attention to the need to ensure that the drains do not act as pathways for contamination or cause flooding off-site. The site will adopt a sustainable urban drainage scheme.

It is recognised that construction activities may adversely affect the quality of surface water or ground water due to contaminated run-off or spillages. Mitigation measures and pollution prevention practices will be established to greatly reduce the risk of this happening. Any liquids contaminated by oil or other deleterious matter shall be passed through approved interceptors to remove contamination.

surface water run-off will be managed to prevent pollution of controlled waters. Best practice measures to be implemented include:

 Roads and hard surfaces will be kept clean, to prevent a build-up of mud and sediment that could contaminate surface water

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- All soils will be stored a minimum of 10m from watercourses and any potentially contaminated soil will be stored on an impermeable surface and covered to reduce leachate generation and potential migration to surface waters
- Ensure construction compounds, areas of storage (including topsoil where possible) and parking bays are located outside of any areas vulnerable to flooding

4.5.3 Foul Water

Initially all foul effluent will be contained and the foul effluent container will be subject to daily inspection and a maintenance and emptying schedule as recommended by the manufacturer. The effluent will be removed by tanker and disposed of at a licensed facility.

An NRW discharge permit has been applied for permission to use package sewage treatment plant on site. There will be no discharges of any kind to watercourses or sewers without the prior written consent of the appropriate authority and there will be full compliance with any consent conditions in respect of discharges.

4.5.4 Water Monitoring

All nearby watercourses will be subject to visual daily checks, weekly inspections and monthly audits.

4.5.5 Flooding

Flood risk information will be used to safely plan and manage the construction phase works in these area. During construction works checks will be carried out on local and national weather forecasts, and NRW website to check the live flood warning map (which is updated every 15 minutes to show flood alerts and warnings).

The risk of flooding will be considered wherever possible when designing and/or locating the following:

- The location of access and egress routes
- The temporary elements on the Project will be located outside the flood zones;
- Soils will be stored at least 10m away from watercourses, and outside of areas of floodplain. Where this is not possible, gaps will be provided in stored topsoil to prevent the impoundment of flood waters (all year around)

4.6 Pollution Prevention

The construction works on this Project are being undertaken in and around Snowdonia National Park, a designated Area of Outstanding Natural Beauty (AONB). HTUK is very mindful of the need to ensure that we protect the areas in which we are operating. Strict controls shall be put in place to prevent any pollution incidents. A Project specific Pollution & Incident Control Plan has been developed informed by the following guidance documents:

Summary of guidance documents

Title	Details
PPG1: Understanding	An introduction to pollution prevention including
your environmental	containment, waste, and emergency planning.
responsibilities	
GPP2: Above ground oil storage tanks.	This will advise the correct storage of oils across the Areasfor permanent and temporary works, particularly within the proposed SEC and contractor compounds to minimise therisk of causing pollution.
GPP5: Works and maintenance in or near	Given the proximity of several streams and ponds to the proposed areas of temporary and permanent works thereis the potential to
water.	cause pollution, transfer non-native species and can impact on the bed and banks of a watercourse.



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PPG 6: Working at construction and demolition sites.	An overarching document providing best practice principles and examples to be used as guidance on how toprevent pollution.
PPG 7: Safe Storage –the safe operation of refuelling facilities	Including guidance on small scale liquid refuelling of plantand machinery on site to prevent damage to surface waters, ground water, land, and air.
GPP8: Safe storage and disposal of used oils.	The correct handling of waste during the construction period and during ongoing maintenance, including wasteoils, must be safe and secure. Waste minimisation is thepreferred option. Waste is regulated under the Duty of Care Regulations. Oil storage is regulated under the OilStorage Regulations (see GPP2).
GPP13: Vehicle washing and cleaning.	Effluent and run-off from vehicle washing and cleaning candamage the environment and pollute rivers, streams, burnsand ground water. It may be a legal requirement to arrangethe collection and disposal of effluent and run off. If vehiclewash areas are required on site these should be managed appropriately.
GPP19: Vehicles: Service and Repair.	The repair and maintenance of machinery and plant mustbe conducted in an appropriate location and properly managed.
PPG 20: Dewatering underground ducts and chambers	Protection of controlled waters during any dewateringworks to avoid pollution.
GPP21: Pollutionincident responseplanning.	Production of a plan will help to prevent or reduce environmental damage of such an incident occurs. Atemplate is available to assist the production.
PPG 26: Safe Storagedrums and intermediatebulk containers (IBCs)	Good practice guidance for the safe storing and handling of small containers and IBCs to reduce the risk of pollutionfrom sites to land, surface waters and ground water.

4.6.1 Emissions to Land

4.6.1.1 Plant & Machinery

The greatest risk comes from the use of plant and machinery. All plant procured for use during the Project including those brought to site by the supply chain must comply with HTUK Minimum Standards – Plant (00000-HUK-GHS-XX-ST-Z-0002). All plant shall be subject to a reception check prior to its first use and daily checks thereafter. Daily checks shall be recorded on HART and shall include checking for any leaks of fuel or oil.

Evidence of regular maintenance and inspections will be provided together with details (in hours) of when the next service is due.

Biodegradable oils shall be used for hydraulics and biofuels such as HVO are preferred as an alternative to diesel. Where applicable engines should meet the EU IV standard for emissions.

All drivers shall keep a 'grab bag' of absorbent products in their cab for immediate use in the event of a spill or leak. The 'grab bags' will form part of the regular vehicle/environmental inspection regime and will contain the appropriate pads, together with protective gloves and a blue disposal bag. All plant operators will receive spill response training as part of their induction.

When not in use vehicles should be parked away from drains and where possible with a plant nappy in place. Vehicles shall be inspected before use to check for any leaks.

4.6.1.2 Deliveries and Refuelling

There shall be a designated fuel storage area which should be of suitable size to and located to receive deliveries of fuel and permit the refuelling of vehicles. This shall be positioned at



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least 10m from any watercourse and at least 50m from any borehole or well and positioned on a hardstanding where possible. Alternatively the fuel bowser shall be contained with a lined (impervious), sand filled bund, constructed from rail sleepers with sufficient area to the front of the container to allow for any drips or spills arising from deliveries or dispensing to be contained.

Refuelling activities shall be conducted by designated personnel who have received spill training and shall be competent to deal with any incidents in according with HTUK procedures. All deliveries must be supervised throughout the operation.

The emergency spill procedure shall be displayed in the fuel storage area

A container with absorbent pads, booms, and granules, together with PPE and disposal bags shall be kept in the fuel storage area

All spillages occurring during any fuel handling activities must be cleaned up and reported to the SHE team through HART.

4.6.1.3. Oil & Fuel Storage

All oil and diesel storage facilities shall be positioned at least 10m from any watercourse including surface water drains; and at least 50m from any borehole or well. All flammable and hazardous substances will be kept in accordance with the HTUK COSHH Management Procedure (00000-HUK-GHS-XX-PC-Z-0002)

Oil storage containers include:

- oil drums and fixed tanks
- intermediate bulk containers (IBCs)
- mobile bowsers containers designed to store and dispense oil that can be moved between locations, but not under their own power
- some types of generators and transformers

Fuel shall be stored in bunded containers with a 125% capacity. Fuel containers should be kept locked, and access restricted to authorised personnel only.

Spill kits and drip trays shall be provided for all equipment and at locations where any liquids are stored and dispensed.

All static plant, such as pumps and generators, shall have integral drip trays where possible or, as a secondary requirement, external drip trays that are to be checked and emptied daily and contents disposed of in accordance with the Site Waste Management Plan. (Refer to Appendix 3). Static plant will be subject to regular inspection to ensure they are running 'cleanly' with no signs of drips or leaks. Any issues identified will be reported to the supplier for rectification.

Where fuel is delivered through a pipe permanently attached to a tank or bowser the pipe shall be fitted with a manually operated pump or a valve at the delivery end which closes automatically.

The pipe shall be fitted with a lockable valve at the end where it leaves the tank or bowser, and the pipework shall pass over and not through bund walls. Tanks and bunds shall be protected from vehicle impact damage and tanks shall be labelled with contents and capacity information.

All drip trays for static plant, refuelling and servicing shall be of sufficient size to retain

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10% of the total volume of liquids being 'handled' and have an absorbent filler such as proprietary pads or sand to reduce the impact of disposing of liquids.

Interceptor drip trays shall only be used for oil-based products. They are ineffective for water soluble products.

4.6.1.4 Drum Storage

In accordance with the Control of Pollution (Oil Storage) (Wales) Regulations 2016, where oil drums are over 200 litres it will be ensured that:

- Multiple drums and containers have suitable secondary containment with sufficient capacity to contain at least 25% of the total volume of the containersor 110% of the largest container, whichever is the greatest
- Drum storage areas will be covered to prevent rainwater getting into bunds and drum pallets
- Drums will be labelled and positioned such that leaks cannot overshoot the bund or drip tray wall
- All containers are stored securely when the site is unattended.

4.6.1.5 Flammable and Hazardous Substances

All flammable and hazardous substances will be stored in accordance with the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (as amended) and any substance specific safety data sheets. Storage facilities and containers will be constructed of materials chemically resistant to its contents.

4.6.1.7 Disposal of contaminated waste

Facilities for containing used absorbent products, liquid wastes etc shall be provided. Storage and disposal shall be in accordance with HTUK Waste Management Procedure (00000-HUK-GHS-XX-PC-Z-0037) and fully detailed within the Site Waste Management Plan.

4.6.2 Emissions to Water

A detailed Site Drainage Plan (SDP) for the Project will be prepared which details watercourses, including drains, ditches, and out falls and shall be considered when planning work activities. The SDP will be monitored and implemented throughout the works.

A buffer strip will be left along watercourse/ ditch banks to prevent the sediment yield generated by the works to enter a watercourse. Silt and sediment control and trapping measures would be used as appropriate. This will include the use of silt fencing along the site boundary between the site and the adjacent water course.

In the event of any spill reaching a watercourse, a boom shall immediately be deployed downstream of the spillage. It will be secured on each bank and span the entire watercourse.

To enable the recovery of the pollutant, the boom should be deployed at an angle to direct the pollutant to one bank.

The pollutant will be removed using floating absorbents and if necessary, skimmers.

All the contaminated material and absorbents will be disposed of in accordance with the Site Waste Management Plan.

All significant and major spillages into a watercourse will be reported to National Resource Wales on 0300 065 3000 via the HTUK Environmental Manager





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Silt Fencing

Silt fencing will be used to control silt laden water runoff discharging the adjacent water course. In addition silt fencing will also be installed around the soil stock piles to prevent silt laden runoff from the soil stockpiles.

Site roads will constructed of granular material with permeable surfacing because of their temporary nature and the need for their subsequent removal at the end of the SVIP tunnel works. During construction the site roads will be bounded by silt fencing to control silt laden runoff being discharged from the site road construction works. Therefore the risk of silt laden runoff will be controlled at source.

4.6.3 Incident Response

As part of the emergency response planning an environmental response team will be established, they will be contactable out of hours.

The SVIP Pollution Control Incident Plan contains detailed information on the correct course of action and contact points in the event of an incident, however in general the action to take should be:

- the Environmental Manager and SHESQ Manager will be contacted;
- the size of the incident will be assessed;
- if the incident is controllable by staff on Site, remedial action will be taken immediately in accordance with the PICP;
- if the incident cannot be controlled by the staff on Site, contact will be made with DARCY GROUP who provide a 24/7 emergency response;
- the appropriate enforcing authority will be contacted and informed, as appropriate including:
 - NRW for incidents affecting rivers, groundwater, marine environment,major emissions to atmosphere and protected species
 - the local sewerage undertaker for incidents affecting sewers
 - the Local Authority Environmental Health Department for incidents that could affect the public or other assets
 - the Food Standards Agency for incidents that have the potential to affect food through deposition on crops or land used for grazing livestock
- the Project Manager and SHESQ Manager will instigate an investigation into the occurrence of the incident;
- the findings will be sent to the appropriate enforcing authority where necessary; and
- an action plan will be prepared to determine why the incident occurred and whether
 any modifications to working practices are required to prevent a recurrence. If
 necessary, the Outline CEMP, PICP and SHE Plan will be updated (and any other
 plans as appropriate) and all workers will be notified.

DARCY GROUP 01732 441019

A site-specific pollution incident response will be displayed on posters on site, in offices and key strategic locations such as storage areas and refuelling points. It will be conveyed to everyone attending during site induction.

The National Grid Project Manager shall be informed of any incident within 1 hour as per the National Grid Incident Management System process.





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4.7 Nuisance Management

4.7.1 Noise

The works on the Project are likely to include operations which have the potential to cause a nuisance to residents in the local community. HTUK will take all reasonable steps to minimise noise emissions resulting from works on site. All lorries, generators and plant/machinery must be switched off when not in use. HTUK shall implement Best Practicable Means (BPM) as per recommendations set out in BS5228 (Code of practice for noise and vibration control on construction and open sites).

4.7.1.1 Monitoring

Prior to the works commencing HTUK will take baseline sound level readings to establish the background noise levels at each work location, identify vulnerable receptors and appropriate mitigation measures.

For all construction activities the following construction noise limits as set out in Section E5 of BS5228 will apply (subject to any alternate agreement in terms of a Section 61 Consent):

65 dB for daytime

55 dB for evening and weekends (Saturday after 1pm and Sunday)

45 dB for night-time

All measurements shall be made on a noise level meter that meet the specification set out in BS5969, with reference to BS7580-1:1997.

S61 Consent

HTUK will liaise with the local planning authority regarding the construction activities that will be carried out on the Project. If required application for prior consent under Section 61 of the Control of Pollution Act for noisy activities will be made and HTUK will comply with noise regulations and any restrictions imposed by the local authorities. All noise control measures required to meet any noiselimits agreed with the Local Authorities will be implemented by HTUK.

Plant & equipment

- All plant and machinery brought to site will conform to HTUK Minimum Standards for Plant and relevant national or international standards, directives and recommendations on noise and vibrations emissions.
- All generators and compressors used on the site shall be 'sound reduced' models
 fitted with acoustic linings and all ancillary pneumatic percussive tools shall be fitted
 with mufflers or silencers of the type recommended by the manufacturers for types of
 plant and equipment whose noise emissions are governed by EC Directives, only plant
 bearing the appropriate conformity mark shall be used on site.
- All plant arriving on site will be subject to a 'reception check' prior to use. This
 applies to vehicles hired by HTUK and those provided by the supply chain
- Operations shall be stopped whenever unreasonable noise or disturbance results from faulty equipment. Faults to equipment shall be remedied immediately or the equipment shall be replaced.
- Noise emitting equipment, which is required to be operated continuously, or at night shall be electrically powered.
- All powered equipment in intermittent use shall be shut down in the intervening periods between works or throttled down to a minimum required.

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 Audible warning systems, e.g., vehicle reversing sirens, are switched to a setting, which is compatible with Health and Safety Executive requirements.

4.7.3 Emissions to Air

Dust

HTUK shall carry out work so as to minimise air quality impacts from the construction works.

Vehicle emissions

All plant and vehicles procured for use during the Project including those brought to site by the supply chain must comply with HTUK Minimum Standards – Plant (00000-HUK-GHS-XX-ST-Z-0002).

To limit emissions and avoid nuisance HTUK will implement the following conditions

- Ensure the engines of vehicles and equipment are not left idling when not in use
- All vehicles and equipment will be properly maintained and serviced in accordance with the manufacturer's recommendations. Reception checks will be carried out to ensure vehicle is in good condition prior to use on site.
- Avoid the use of diesel or petrol-powered generators where practicably possible.
- Encourage the use of HVO or other biofuel and/or hybrid powered plant
- All non-road mobile machinery shall:
 - use fuels with a sulphur content equivalent to ultra-low sulphur diesel fuel meeting the specification within EN590:2004:
 - comply with the current or immediately previous EU Directive Staged Emission Standards

4.7.4 Cleanliness of footpaths and highways

HTUK shall establish site compounds with appropriate surfacing and a wheel wash to ensure that the local road networks are clear of mud and debris.

4.7.5 Public Rights of Way

There are a number of PROWs in the vicinity of the site. However, it is not anticipated that any PROWs will need to be closed, diverted, or restricted during the execution of the works.

4.7.6 Lighting

Lighting shall be used only when required to ensure safety and shall comprise lighting of work areas and access and egress with low level directional lighting. Lighting for the construction works the site welfare and site security cabins shall include low level lighting. Motion sensor-lighting shall be used in areas of high security risk and access and egress.

Regarding neighbouring properties & residents; wildlife and energy management, the following measures shall be implemented for any lighting provided at or above ground level:

- Lights installed shall be of the minimum brightness and/or power rating capable of performing the desired function.
- Light fittings shall be used that reduce the amount of light emitted above the horizontal.
- Light fittings shall be positioned correctly and directed downwards.
- Direction of lights shall seek to avoid spillage onto neighbouring properties.
- Passive Infra-Red (PIR) controlled lights shall be considered for use where



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appropriate as these may be more acceptable to neighbours than those whichare controlled by a time switch or are on all the time; and

· Unnecessary lights shall be switched off.

4.8 Waste Management

All waste removed from site will be covered by a Waste Transfer Note or Hazardous Waste Consignment Note, containing all the legally required information. Most inert and non-hazardous waste will be transferred under a single movement 'Waste Transfer Note' but 'Season Tickets' may be used where there are multiple movements of the same waste to the same destination. Hazardous wastes will be transferred using a 'Hazardous Waste Consignment Note'. Waste Transfer Notes will be kept for two years and Hazardous Waste Consignment Notes for three years.

Waste will be transported using registered waste carriers and all waste will be disposed of at licensed waste disposal sites or under an NRW waste exemption or permit. All waste services will be procured will ensure that Waste Carrier Licences and Waste Management Licences are valid and appropriate, by checking details on the relevant Public Registers.

Table 4.8 Waste Controls

TASK	RESPONSIBILITY
Plan to segregate waste as far as technically, environmentally and economically practicable.	Project Manager Environmental Manager
Documentation:	
 Ensure that copies of the following are retained on site: Evidence of all relevant Waste Carriers Registrations and associated Environment Agency validity checks; All relevant Waste Management Licences / Exemption Certificates and associated Environment Agency validity checks; Waste Transfer Notes and Consignment Notes; Site Waste Management Plan/ Hazardous Waste Register; 	Environmental Manager
Site Controls:	
Do not accept damaged skips/ waste containers on to site	Environmental Manager Site Manager
Locate skips/ waste containers away from drains, watercourses and heavily trafficked areas.	Environmental Manager Site Manager
Ensure hazardous waste containers are covered and located on hardstanding.	Environmental Manager Site Manager
Locate non-hazardous skips/ waste containers on hardstanding if possible.	Environmental Manager Site Manager
Ensure that waste is segregated and placed in the right skip/bin	Environmental Manager Site Manager
Ensure all waste is stored securely so that it cannot escape (wind/ vermin).	Environmental Manager Site Manager
Remove waste, disused materials, packaging and other debris at frequent intervals to ensure the site is kept clean and tidy.	Site Manager Team Leader
Ensure all hazardous waste containers are covered.	Site Manager Team Leader

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TASK	RESPONSIBILITY	
Ensure all skips and bins are labelled with their contents (incl.	Site Manager	
EWC Code).	Team Leader	
Place the correct waste in the correct skip.	All staff	
Report skips that are leaking or overfull to your supervisor.	All staff	
Report fly-tipping to the Team Leader / Supervisor/ SHES	All staff	
Advisor/ Manager		
Eliminate unnecessary wastage by:	All staff	
storing materials neatly on flat solid ground to avoid		
damage and loss;		
keeping materials in their packaging for as long as		
possible to protect them from damage;		
protecting materials from the weather to avoid loss from		
exposure to the elements;		
 ensuring existing material containers are empty before 		
opening new ones; and		
keeping significant off-cuts for use elsewhere.		

4.9 Traffic and Transport

Access locations are positioned along routes that are suitable for the category of traffic proposed to use it. Accesses will be designed to accommodate the category of traffic to be served from each access. Visibility splays will be provided in accordance with TAN18 requirements.

Construction traffic routes have been selected to reduce adverse traffic effects. Traffic management measures will be agreed with Gwynedd Council, the Highway Authority.

Proposed mitigation measures include a requirement forr HGVs used for the construction of the Project to be the required Euro Class and could have additional cycle friendly measures such as cameras, sideguards, full length door windows, blind spot warning systems and additional mirrors (Class V and Vi)

A copy of the access route plans shall be provided to all suppliers and haulage operators when orders are placed to ensure that drivers are fully briefed on the required route to take. Suppliers will be made aware that these routes are required to be followed at all times unless agreed or alternate diversions are in place.



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5.0 Sustainability

5.1 Carbon

HTUK Carbon Reduction Plan (CRP) and HOCHTIEF Sustainability Strategy set a target of reaching Net Zero by 2045. Carbon emissions from Scope 1, Scope 2 and specified Scope 3 emissions will be reported. Work activities will be assessed to determine where carbon reductions can be made. These will be recorded in the Sustainability Register established by the Design Team.

5.2 Energy

HTUK is certified to ISO 50001 Energy Management standard and targets for energy reduction are set within the business. A detailed energy register and management report is produced centrally for each site in the business. Energy and carbon reports for SVIP will be available through the HART-e dashboard.

HTUK Minimum standards for Plant and for Premises both reflect the need for energy efficiency when procuring plant and office accommodation.

All mains' supplies will be metered, and sub- meters will be installed where appropriate. Meter readings will be collected and reported monthly.

The importance of energy efficiency and reducing carbon emissions will be delivered to site teams at induction and reinforced through toolbox talks and poster campaigns

5.3 Community Engagement

The National Grid community liaison team will lead any community engagement events and will be supported by HTUK project team. HTUK will provide Welsh translation services. Positive Community Engagement is subject to measure and financial incentive/pain mechanism in accordance with Contract Key Performance Indicator KPI-006 Community, Stakeholder and Customer.

5.4 Employment Opportunities

HTUK intend to provide employment opportunities for individuals, suppliers, and subcontractors in the local area of the Project where practicable.

Our Local Workforce Strategy Plan will include the following.

- Supply chain (including the use of Small Medium Enterprises (SME))
- Local workforce sourcing
- Workforce accommodation (including the provision of a Workers Accommodation Facility)

5.5 Supply Chain Sustainability School

HTUK are proud to be partners in the Supply Chain Sustainability School (SCSS). We request that those members of our supply chain who are not already members or partners, join the school. HTUK will use the resources of the SCSS to inform and instruct site staff and operatives on a regular basis.



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6. Governance

6.1 Document Reviews and Updates

This document shall be reviewed at least every 6 months or whenever there are significant changes to the project scope of works, or changes in legislation.

6.2 Audits

The implementation of the project environmental plan shall be subject to regular audits by both SHE team, the Client and 3rd parties.



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7. Appendices

Appendix A Figure 1.1 Proposed Project Overview

Appendix B Environmental Aspects & Impacts Assessments

Please refer to document C0233-HUK-GES-XX-RA-W-0001.

Appendix C1 HOCHTIEF Integrated Management System (IMS) Policy Statement

Please refer to document 00000-HUK-GEN-XX-PO-Z-0004

Appendix C2 BSI Certificate for ISO 14001:2015 Environmental Management System

Please refer to Document 00000-BSI-GEN-XX-CC-Z-0002

Appendix D HOCHTIEF Sustainable Society Policy

Please refer to document 0000-HUK-GEN-XX-PO-Z-0001



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