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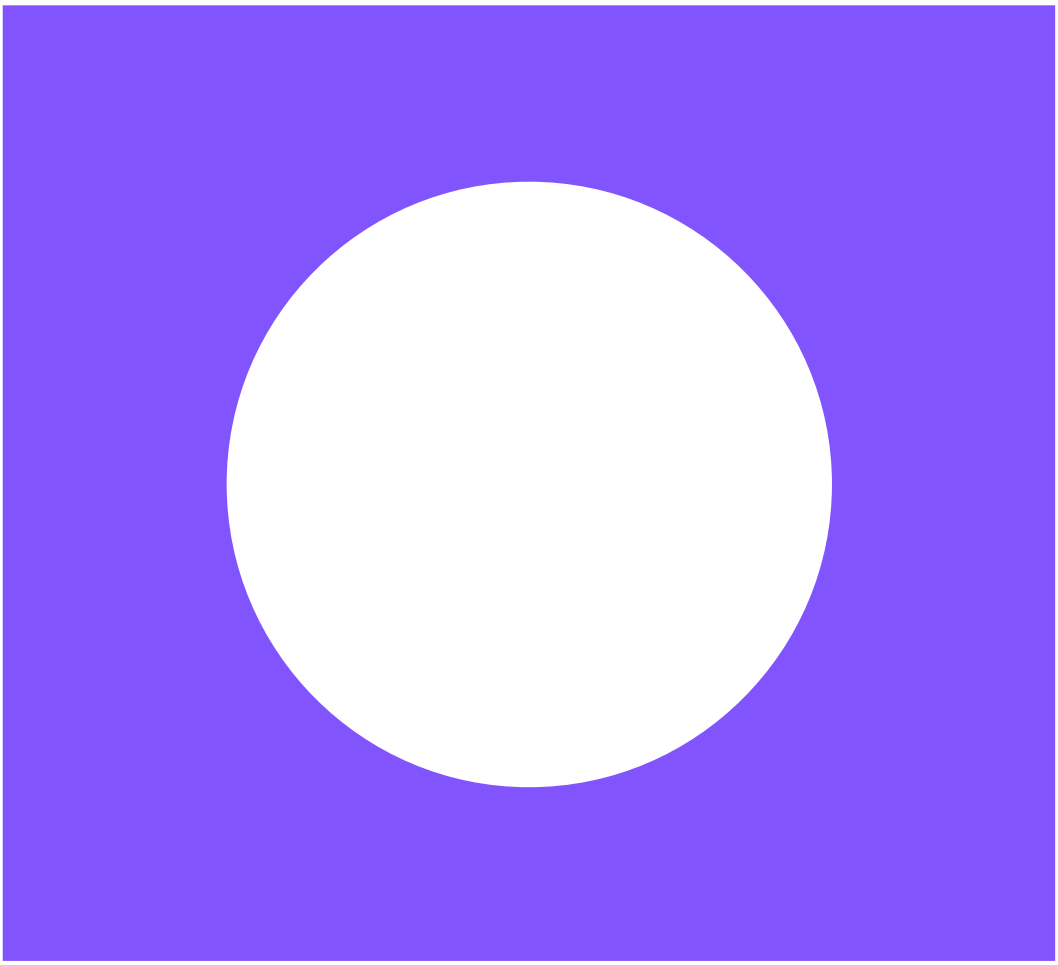

Construction Environmental Management Plan

Cefn Dryscoed DAF

February 2026

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Construction Environmental Management Plan

Cefn Dryscoed DAF

February 2026

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
P01	February 2026	S P Williams I Biskup	K Morris	P Roy Choudhury	First issue

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Contents

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1 Introduction

1.1 Purpose

The Construction Environmental Management Plan (CEMP) outlines the key environmental risks relating to the project, and identifies how the project will avoid, minimise, and mitigate these environmental risks. This document provides sufficient detail for construction works to commence provided the proposed control measures as stated in this CEMP are in place. It also details roles and responsibilities of those involved in the project and refers to all temporary and permanent works. The contractor will read the CEMP in conjunction with the Mott MacDonald Bentley (MMB) scheme Contract Management Plan (CMP). The CEMP and CMP are both live documents and will be updated throughout the duration of the works as required.

The implementation of the CEMP will be monitored by MMB SHEQ (Safety, Health, Environment and Quality) team, and the Environmental Specialists supported by a suitably experienced ecologist as deemed appropriate. An up-to-date copy of the CEMP will be available on-site during construction and the intention is that this is a dynamic document that will be regularly reviewed and revised when deemed necessary.

Any site-specific details documented in this CEMP are in addition to the contractors own Environmental Management Systems (EMS).

1.2 Scheme Description

1.2.1 Site Description and Location

The Cefn Drycoed Water Treatment Works (WTW) is currently owned and operated by Dwr Cymru Welsh Water (DCWW) and is situated near the village of Pontneddfechan, within the administrative boundary of the Bannau Brycheiniog National Park Authority. The WTW is supplied by Ystradfellte Reservoir where there have historically been elevated levels of colour, dissolved organics and manganese presenting a water quality challenge. In order to reduce the manganese and improve the water quality, a new dissolved air floatation (DAF) building and associated infrastructure (hereafter referred to as ‘the proposed scheme’) is proposed in the field adjacent to the existing WTW (hereafter referred to as ‘the site’).

1.2.2 Project Overview

The proposed scheme entails the construction of a DAF building at Cefn Dryscoed WTW to house the installation of three new DAF tanks, DAF Motor Control Centre, flocculators, balancing tanks, and other processing and ancillary equipment, the installation of new electrical cabling, distribution boards, PLC and instrumentation, pipelines to connect the new DAF building to the existing WTW and to connect the existing raw water main to the DAF plant including associated chambers and ducts for chemical dosing and electrical cabling, as well as a new stone wall, fencing, drainage, soft landscaping, access track and temporary enabling works

1.2.3 Project Scope

The construction of a new dissolved air floatation (DAF) building at Cefn Dryscoed Water Treatment Works (WTW) to house the installation of three new DAF tanks, DAF Motor Control Centre, flocculators, balancing tanks, and other processing and ancillary equipment, the installation of new electrical cabling, distribution boards, PLC and instrumentation, pipelines to connect the new DAF building to the existing WTW and to connect the existing raw water main

to the DAF plant including associated chambers and ducts for chemical dosing and electrical cabling, as well as a new stone wall, fencing, drainage, soft landscaping, access track and temporary enabling works.

1.2.4 Key Roles and Personnel

The following have been identified as key contacts for the proposed scheme.

Table 1.1 Key Roles and Personnel

Company	Role	Name	Contact Telephone
DCWW	Project Manager	A Moses	Not included in public version for data protection
JNB	Contract Manager	J Eddies	
JNB	Site Manager/Agent	TBC	
JNB	SHEQ Advisor(s)	J Marshallsea T Willimas N Bull A Jones	
MMB	Project Safety Advisor	M McAree	
MMB	Environmental Specialist	K Morris	
MMB	Design Manager	M McAree	
MMB	Design Lead	P Roy Choudhury	
MMB	Project Leader	L Chan	
MMB	Project Ecologist / ECoW	A Davies	

1.2.5 Staff Environmental Training

All site personnel will receive environmental induction training and site-specific environmental training sessions via team briefings and regular tool-box talks. These tool-box talks can be found on the SHEQ hub (MMB internal only). The following topics have been identified as essential:

- Material Handling and Housekeeping
- Pollution Prevention – Silt
- Pollution Prevention – Fuel & Oil
- Pollution Prevention – Spill Control
- Spill Kit (Crib Sheet)
- Waste – Segregation of Waste
- Waste – Storage of Waste
- Waste – Reduce, Reuse, Recycle
- Breeding birds (including barn owl) – Buildings, nest boxes, hedgerow, woodland, scattered trees and buildings.
- Bats – Buildings, stone walls, bat boxes, woodland, woodland edge, pasture fields, tree lines and hedgerows.
- Reptiles and amphibians – Grassland, scrub, hedgerows and stone walls.
- Badger and other burrowing mammals – Grassland, hedgerows, woodland and scrub.
- INNS – Himalayan Balsam

This list will be amended should any other toolbox talks be deemed necessary as the works progress. Records of toolbox talks that have been delivered shall be kept on site in the environmental file.

1.2.6 Environmental Audits and Environmental Incidents

Quarterly SHEQ audits will be undertaken by the SHEQ advisor or their appointed person to monitor compliance with the CEMP and CMP. Updates to the CEMP will be coordinated by the Environmental Specialist and issued to relevant parties.

Should an environmental incident occur, all associated works must stop, and any source of pollutants contained immediately, following procedures in the Pollution Prevention Plan and CMP. The SHEQ Advisor and Environmental Specialists will be contacted immediately, and the incident reported to the appropriate authorities and the client.

2 Environmental Setting

The following table describes the environmental setting of Cefn Drycoed WTW.

Table 2.1. Environmental Setting Aspects

Aspect	Setting
Ground conditions and Geology	The published geological mapping from the BGS indicates that the proposed site is wholly underlain by the South Wales Lower Coal Measures Formation – Sandstone bedrock geology from the Carboniferous period. No superficial deposits are mapped directly beneath the proposed site. Based on current and historical land uses and the data reviewed in Geotechnical desk study (B17545-123532-14-ZZ-AS-GA-GC0001, June 2024) prepared for the project, there are no clear sources of contamination affecting the ground conditions at the proposed site location. Some minor and/or localised contamination may be present associated with farming activities or private use. Ground Investigation (GI) has been completed in January 2026. Once available, GI results will be used to inform the detailed design and any mitigation measures, if required.
Hydrology	There are undesignated linear waterbodies present downhill between the site and the River Neath, the nearest of which is located approximately 80m away. The closest designated watercourse is the River Neath, a Statutory Main River located approximately 500m to the northwest of the proposed scheme. The site is located in Flood Zone 1, signifying a low probability of flooding.
Vegetation, Habitats and Designated Sites	The proposed site consists of pasture fields and hedgerows and is surrounded with the existing WTW which consists of a collection of stone buildings, a parcel of ancient woodland to the north and moorland to the north east. There are no ancient, veteran or notable trees present on site. However, there are 13 individual trees, nine tree groups, two hedgerows and two woodlands identified on site. There are three internationally designated sites within 10km of the proposed scheme, five statutory designated sites and no non-statutory designated sites within 2km of the proposed scheme. The Preliminary Ecological Appraisal (B17545-123532-14-ZZ-AS-NA-EI0006 P03) and further surveys have confirmed the presence of a maternity bat roost in the neighbouring building (existing operational WTW), the presence of barn owls and some high quality hedgerows. The surveys also confirmed the likely absence of badgers and hazel dormouse.
Historic Setting	In accordance with the Historic Environment Desk Based Assessment (DBA) (B17545-123532-14-XX-RP-NA-EI0063 P02) produced for the proposed scheme, there are no designated historic assets recorded within the site. The nearest scheduled monuments are located approx. 1.5km southeast of the proposed scheme and the only listed building within the study area is over 1km north of the proposed scheme. There are no non-designated historic assets within the site. There are 26 non-designated historic assets within the 750m study area, of which three are in close proximity to the proposed scheme. These comprise post medieval farm buildings incorporated into the current Cefn Dryscoed WTW and a collection of farm buildings at Gwern-bleiddgi farm. Ridge and furrow and field boundaries have been identified within the site.
Community	The proposed scheme is situated in a rural area, approximately 1.5km from Pontneddfechan, the nearest village. The nearest residential receptor is a farm located immediately adjacent to the southern boundary of the proposed site. The owner of the farm owns the proposed site which is to be purchased for the proposed scheme.
Landscape and visual	The proposed scheme is located on an elevated hill within Bannau Brycheiniog National Park. The landscape character around the existing WTW is one of remoteness and rural tranquillity. There is a Public Right of Way (PRoW), footpath 41/17/1, crossing the site boundary. An additional PRoW, restricted byway 41/83/4, is located adjacent to the site boundary. Visitors to the National Park and users of the PRoW are classed as high sensitivity visual receptors. Due to the exposed position of

Aspect	Setting
	the proposed development on an elevated hill, it might be visible to the walkers and other recreational users of the national park.

3 Environmental Risks and Controls

The following table identifies the environmental risks and controls on site.

Table 3.1 Environmental Risks and Controls

Risk	Receptor/s	Mitigation	Site Team Responsibilities
Damage to Statutory Designated Sites and harm to qualifying features within designated sites	Coedydd Nedd a Mellte SAC	The impacts to this designated site have been considered as part of the Habitat Regulations Assessment (B17545-123532-14-XX-DR-NA-EI1210) – please refer to Section 6.1 for more details. Mitigation measures proposed during construction include: ● Pollution prevention measures will be implemented during the construction process to control surface water run off with the aim of avoiding silt and/or pollutants entering watercourses leading to the SAC. These measures are set out in Sections 7 and 8.	● Site team to implement the pollution prevention measures and to regularly check for any incidents in line with Sections 7, 8 and the Pollution Incident Response Plan included in Appendix D.
Damage to Habitats	All habitats of ecological value	To protect the retained habitat thoughout the construction phase, control measures specified within this CEMP will be implemented to prevent indirect impacts, including run-off and dust deposition on all identified habitats.	● Site team to ensure all measures identified within this CEMP are implemented to prevent any indirect impacts on the habitats. ● Site team to install the fence around the grassland road verge and sign post it to prevent machinery or plant entering the area. ● Site team to undertake grassland management for a year following the implementation of the reinstatement plan, prior to handing it over to the client to manage for a period of 30 years. ● Site team to instal the tree protection fencing in accordance with the measures specified in Section 11.2. ● Site team to ensure reinstatement is completed in line with the Landscape Proposal (B17545-123532-14-XX-DR-NA-EI1222) and the Landscape and Ecological Management Plan (B17545-123532-14-XX-PR-NA-EI0085).
	Wet heathland with cross-leaved heath – upland (H4010) Purple moor-grass and rush pastures	Construction traffic will be kept to the agreed access route and no vehicles will be parked or driven onto areas of moorland.	
	Other lowland dry acid grassland	The grassland road verge will be safeguarded throughout the construction phase of works, with fencing installed and sign-posted. No machinery or plant will be driven into this area. As part of the enhancement of the site, grassland management will be undertaken to improve the quality of this sword.	
	Other lowland mixed deciduous woodland	Offsite trees will be protected with tree protection fencing in line with BS5837 2012.	

Risk	Receptor/s	Mitigation	Site Team Responsibilities
	Species-rich native hedgerow	Loss of a small number of trees/scrub to widen an existing hedgerow gap will be required in order to connect pipework into the existing WTW. All hedgerow habitat will be reinstated upon completion of the works, whilst any trees lost will be replaced at a ratio of 3:1 as a minimum. In addition, a new native species-rich hedgerow will be planted as part of landscaping (minimum of 5 native woody species).	
Failure to comply with Net Benefits for Biodiversity (NBB) requirements	DCWW A duty to achieve NBB under PPW and Section 6 of Environment Act - a particular weight is placed on the importance of safeguarding hedgerows, woodland and trees	The Proposed Development will result in the permanent loss of 0.47ha of grassland (0.45ha of modified grassland and 0.02ha of semi-improved neutral grassland). To compensate for this habitat loss, a long-term grassland management regime will be implemented to improve species diversity and condition of modified and lowland acid grasslands to benefit invertebrates, amphibians and reptiles (and in turn, bats and birds). Management will include a cutting regime with the target of more than 10 species per m2 for all existing areas of modified grassland. Management of lowland acid grassland with target a decrease in non-favourable species (i.e. creeping thistle) and an increase in acid indicator species. A total area of 0.65ha of grassland will be managed to compensate for the loss of 0.47ha. The following habitat enhancement measures are proposed: ● Orchard planting ● Pond creation ● Woodland planting ● Tree planting ● Hedgerow creation ● Stone wall creation ● Artificial lighting modification ● Provision of bat boxes ● Provision of bird boxes ● Provision of artificial refugia	● Site team to reinstate the site in line with the Landscape Proposal (B17545-123532-14-XX-DR-NA-EI1222) ● Site team to implement the long-term management of habitats and species as specifies within the Landscape and Ecology Management Plan (LEMP) (B17545-123532-14-XX-PR-NA-EI0085).
Impacts to protected species (including disturbance, killing or injury)	All protected species	**General protected species mitigation:** In the event of a suspected protected species or an invasive or injurious species being discovered the following actions must be taken: ● Stop works in the area, as soon as safe to do so, and cordon off. Restrict access to the area until additional advice is obtained.	Should any protected species, or an invasive or injurious species be discovered during construction, the site team shall:

Risk	Receptor/s	Mitigation	Site Team Responsibilities
		● Contact the ecologist, Environmental Specialist or SHEQ Advisor for advice. ● In the case of protected species and designated sites, the appropriate authority must also be informed after consultation with the ecologist. ● Identify, discuss and agree measures required ensuring compliance with legislation, when works can be completed, and what should be included within the method statement. Agreement and discussions must be recorded and kept on file. ● Report any expected findings in line with the incident reporting procedure.	● Stop works in the area, as soon as safe to do so, and cordon off. Restrict access to the area until additional advice is obtained. ● Contact the ecologist, Environmental Specialist or SHEQ Advisor for advice. ● Comply with Method statement produce by experienced ecologist. ● Site team to ensure reinstatement is completed in line with the Landscape Proposal (B17545-123532-14-XX-DR-NA-EI1222) and the Landscape and Ecological Management Plan (B17545-123532-14-XX-PR-NA-EI0085).
	Breeding birds	**Breeding bird mitigation:** Any vegetation clearance required will be undertaken outside of the breeding bird season (March to August inclusive). Pre-clearance checks will be undertaken by an experienced ecologist to identify any evidence of nesting birds. If a bird's nest is found, it will be left in-situ and protected from the works by a temporary buffer zone. No works will be undertaken in the buffer zone until the birds have fledged, which may take up to 6 weeks depending on the species present. A pre-works check of the existing barn owl nest box will be carried out prior to works commencing. Should evidence of breeding barn owl be identified, no works will be undertaken within 100m of the nest until the chicks have fledged. As far as possible, works within the existing Cefn Dryscoed WTW will be undertaken outside of the core breeding season for birds to prevent disturbance to the species using the existing buildings to nest, alongside barn owl which could be nesting within a box to the north of the site (March to August). All construction traffic, machinery and deliveries should be kept to the dedicated temporary site compound. No machinery or plant should be taken into the existing WTW site unless necessary to undertake the works.	**Breeding bird mitigation:** ● Site team shall not clear any vegetation from March to August inclusive. If clearance during the breeding bird season is unavoidable, the site team shall notify the ecologist, Environmental Specialist or the SHEQ Advisor. ● No vegetation clearance should be undertaken until a pre-clearance check has been undertaken by a qualified ecologist. ● Site team shall not start with any construction activities within 100m of the barn owl nest until an barn owl licenced ecologist has checked an existing nest box and has allowed the site team to proceed. ● Site team shall programme construction works within the existing WTW to avoid March to August inclusive. ● Site team will avoid taking machinery or plant into the existing WTW unless necessary to undertake the works.

Risk	Receptor/s	Mitigation	Site Team Responsibilities
	Bats	**Bats mitigation:** **Works likely to impact roosting bats (i.e. works within 30m of the known roosts within the existing Cefn Dryscoed WTW) will be undertaken outside of the maternity season (May to August inclusive).** Where possible, works will also be timed to avoid the hibernation season (November to March). However, as the construction period is 15 months long (July 2027 to September 2028), works within proximity to the existing WTW buildings during the winter season are unavoidable. Where necessary, temporary noise barriers will be installed to reduce impacts to roosting bats. Bat boxes will be installed as alternative roost provision, prior to works being undertaken. Toolbox talks will be delivered to all site personnel by a bat licenced ecologist. A pre-works check will be undertaken of all trees known to support features suitable for roosting bats. Where necessary, trees will be soft-felled (i.e. limbs should be carefully removed and left overnight before being removed or chipped). All construction traffic will be kept to the dedicated temporary site compound. No machinery or plant will be taken into the WTW site unless necessary to undertake the works. Retained woodland parcels and trees will be safeguarded in line with BS5837:2012. All external lighting will be fitted with hoods, backboards or equivalent to prevent light spill onto retained habitats. As far as possible, construction works will be undertaken during daylight hours. Where this is not possible, directional lighting will be used, facing away from the tree and scrub lines bordering the site, and away from roost features. All works likely to constitute disturbance will be carried out under an NRW protected species licence, with appropriate measures included within a method statement and agreed with NRW.	**Bats mitigation:** ● Site team shall not start works prior to the bat licence being obtained. This section will be updated when the licence has been granted. ● Site team shall not start construction works prior to the pre-works checks being undertaken by a bat licenced ecologist. Where necessary, trees should be soft-felled (i.e. limbs should be carefully removed and left overnight before being removed or chipped). ● Site team shall not work within 30m of the known roosts during maternity season (May to August inclusive). ● Site team to avoid hibernation season (November to March) where possible. If not possible, temporary noise barriers will be installed for any activities likely to constitute disturbance to roosting bats. This will be defined by the bat licence method statement. ● Bat licenced ecologist to deliver a toolbox talk on bats to all those working on site. ● Site team will avoid taking machinery or plant into the existing WTW unless necessary to undertake the works. ● Site team to instal the tree protection fencing in accordance with the measures specified in Section 11.2. ● Site team to avoid construction works during nightime hours. Where this is not possible, an bat licenced ecologist should be contacted. The site team shall use directional lighting, facing away from the tree and scrub lines bordering the site, and away from roost features. All exterior lighting should be fitted with hoods, backboards or equivalent to prevent light spill.
	Badgers	**Badgers mitigation:** As this species is highly mobile and regularly creates new setts, a pre-works check will be undertaken to identify any new evidence of badger.	**Badgers mitigation:** ● Site team shall not start construction works prior to the pre-works checks being undertaken by a qualified ecologist.

Risk	Receptor/s	Mitigation	Site Team Responsibilities
		This update survey will be carried out by a suitably qualified ecologist a minimum of 8 weeks prior to works commencing. Excavations will be fenced off and/or covered to avoid animals becoming trapped with mammal ladders installed where required. Spoil piles will be covered over.	● Site team to fence off and / or cover any excavations. ● Site team to fence off or cover over spoil piles. ● Site team should store all chemicals within areas of hardstanding (including fuel).
	European hedgehog and other burrowing mammals	**European hedgehog and other mammals mitigation:** A pre-works check will be undertaken for mammal burrows by an experienced ecologist. Where present, burrows will be carefully excavated by hand or small machine in sections under ecological supervision to allow mammals to escape, this includes mole hills.	**European hedgehog and other mammals mitigation:** ● Site team shall not start construction works prior to the pre-works checks being undertaken by a qualified ecologist.
	Reptiles and Amphibians	**Reptiles and amphibians mitigation:** All vegetation clearance will be undertaken in a phased manner, under ecological supervision. **The removal of any hibernacula (including stone walls) will be undertaken by hand between April and the end of October** (subject to weather conditions), whilst reptiles and amphibians are active. A toolbox talk should be provided to all those working on-site. If reptiles or amphibians are found, work should cease until advice has been obtained from the site ecologist.	**Reptiles and amphibians mitigation:** ● Site team to undertake all vegetation clearance in a phased manner under ecological supervision. ● Site team to undertake any hibernacula removal (including stone walls) by hand between Apriol and the end of October. ● Site agent or a qualified ecologist to deliver a toolbox talk on reptiles and amphibians to all those working on site.
	Vascular plants	**Vascular plants mitigation:** The populations of notable species will be sign-posted to alert all site personnel to their presence. Best practice safeguards will be employed to reduce the effects of dust and run-off during construction.	**Vascular plants mitigation:** ● Ecologist to sign-post the populations of notable species. ● Site team to ensure compliance with signs as posted, no machinery to be taken into demarcated areas around notable plant species and employ the best practice safeguards to reduce the effects of dust amd run-off during construction.
Spread of invasive non-native species.	Himalayan Balsam	Himalayan Balsam, an Invasive Non-Native Species (INNS) is present within the site. A site specific INNS Management Plan will be produced prior to works starting on site and will include detailed mitigation measures to prevent the spread of Himalayan Balsam. Those measures are likely to include, but are not limited to:	● Site team shall not start construction works prior to the pre-works checks being undertaken by a qualified ecologist. ● Site team to adhere to the measures identified within the INNS Management Plan.

Risk	Receptor/s	Mitigation	Site Team Responsibilities
		● An update check for invasive species should be undertaken by a suitably experienced ecologist prior to works commencing. ● Demarcation of invasive species on site throughout the construction phase. ● Works within proximity to INNS will be minimised where possible. Where this cannot be avoided and the removal of INNS is required during construction, species-specific methods of removal will be used. ● All site personnel will be briefed on the presence and locations of INNS and relevant biosecurity measures through inductions, site briefings, training and species-specific TBT's. ● Appropriate biosecurity measures, including wash down areas will be implemented for any works within 7m of Himalayan Balsam.	
Damage to heritage assets	Non-desginated buried archaeology	A Historic Environment Desk Based Assessment has been prepared for the proposed scheme. Following the completion of the geophysical survey planned for the spring of 2026, this section of the CEMP will be updated to capture any relevant archaeological mitigation, if required.	To be confirmed following the geophysical survey.
Landscape/Amenity	Bannau Brycheiniog National Park International Dark Sky Reserve Users of the PRoWs in proximity to the site	● Locate the construction compound on lower ground to reduce visibility from nearby PRoWs and the access route. ● Restrict the height and spread of material stockpiles to avoid creating prominent temporary features on the skyline. ● Use muted colour Heras fencing or timber hoarding where appropriate to reduce visual clutter and integrate temporary boundaries into the rural setting. ● Minimise construction lighting, using low intensity, directional fittings to avoid unnecessary light spill−particularly important given the site's location within the International Dark Sky Reserve. ● Retain and protect existing boundary features, including dry stone walls, hedgerows and woodland edges, through exclusion zones and protective fencing. ● Avoid unnecessary vegetation removal, particularly along the access track and around existing screening trees. ● Manage construction traffic to limit vehicle movements on the more visually sensitive sections of the Ystradfellte Road to reduce disturbance to tranquillity.	● Site team to set up the temporary haul road, a car park, two compound areas (compound A and compound B), site offices, a material laydown area, topsoil bund and other temporary infrastructure in line with the Enabling Works Layout Plan (B17545-123532-12-XX-DR-CA-PN1203) and the Pollution Prevention Layout Plan (B17545-123532-14-ZZ-DR-NA-EI1220). ● Site team to minimise construction lighting, using low intensity, directional fittings to avoid unnecessary light spill. ● Site team to retain and protect existing boundary features, including dry stone walls, hedgerows and woodland edges, through exclusion zones and protective fencing. ● Site team to manage construction traffic to limit vehicle movements on the more visually sensitive sections of the Ystradfellte Road to reduce disturbance to tranquillity.

Risk	Receptor/s	Mitigation	Site Team Responsibilities
		● Prioritise early establishment of mitigation planting, especially new hedgerow and boundary tree planting, where practicable to deliver early screening benefits. ● Use carefully selected construction colours and finishes (e.g., non reflective materials, darker tones on compound buildings) to minimise temporary visual contrast with the surrounding upland landscape. ● Control dust and soil disturbance through standard best practice measures to prevent noticeable short term changes in landscape condition. ● Plan crane operations sensitively, limiting duration and visibility of crane booms where possible and avoiding extended periods of skyline intrusion.	● Site team to prioritise early establishment of mitigation planting, especially new hedgerow and boundary tree planting, where practicable to deliver early screening benefits. ● Site team to control dust and soil disturbance through standard best practice measures to prevent noticeable short term changes in landscape condition. ● Site team to plan crane operations sensitively, limiting duration and visibility of crane booms where possible and avoiding extended periods of skyline intrusion.
Increased Flood Risk	N/A - the site is located in Flood Zone 1, signifying a low probability of flooding	N/A	N/A
Noise, Vibration, Light and general disturbance to the local community.	Local community	Ensure operations align with standard working hours. Adhere to the measures specified within Section 9.	● Site team to work within the agreed working hours. ● Site team to minimise construction lighting, using low intensity, directional fittings to avoid unnecessary light spill.
Contamination and Pollution	Groundwater and waterbodies Designated sites	Fuel not to be stored within 10m of any drainage system or watercourse. Fuel to be stored in a bunded area. Refuelling to take place over a drip tray or spill pad. Spill kits in place next to refuelling area. Team to undertake spill kit training/toolbox talk. All plant and machinery to be regularly inspected prior to use. Leaking or damaged plant and equipment should be quarantined, drip trays or pads in place and should be repaired or removed from site. Emergency Response Plan to be created and located around site.	All Site personnel to be trained/inducted on refuelling procedures and fuel storage, incident response including the use of spill kits and receive regular toolbox talks on the safe transportation, storage and use of fuel. All works to adhere to the NRW guidance for pollution prevention works in or near water – GPP5. All plant and equipment to be regularly inspected and quarantined, repaired or removed from site if leaking or damaged. All equipment shall be refuelled in a designated safe area away from any ignition source, and access points to water courses (drains, gullies etc.) Refuel location to be agreed with ECoW and / or MMB SHEQ advisor. Refuel over drip trays or plant nappies using equipment that is suitable and sufficient for the task i.e. suitable and

Risk	Receptor/s	Mitigation	Site Team Responsibilities
			approved fuel containers, funnels, non-slip nozzles and disposable gloves. Report & clean up any spillages immediately. All mobile generators are to be sighted within plant nappies during use, carriage and storage. If contaminated ground is found (smell or visual), work is to stop immediately and area segregated by barriers with signage. MMB SHEQ advisor and / or ECoW shall be informed immediately. DCWW shall also be informed immediately. Samples to be taken with analysis to include WM3 & WAC testing for disposal. SWMP to be updated with new sources of waste and disposal locations. All dewatering activities will be in line with GPP5 & RPS 261 *(Temporary dewatering from excavations to surface water: RPS 261)* and all discharge locations shall be inspected by the ECoW / SHEQ advisor or nominated person. Any pumping for dewatering of open excavations must be controlled e.g. issue of a permit to pump and controls put in place to prevent silt entering any sensitive receptors nearby. Inclement weather to be assessed prior to dewatering to reduce silt mobility to sensitive receptors. Landowner agreement must be sought prior to discharging off DCWW operational land. Silt mitigation such as silt curtains and / or straw bales may be required. Consult with SHEQ advisor prior to any dewatering activities.
Breach of Permits	Planning permission Bat licence	*To be completed once licence is in place* **No works can commence on site until the planning permission is obtained and any pre-commencement conditions are discharged.** **No works can commence on site until the bat licence is in place.**	*To be completed once licence is in place*
Failure to meet duty of care - waste storage	Principal Contractor	Site specific waste management plan to be developed prior to works. Segregate waste produced from work operations.	Site team to focus on resource efficiency at the start of the project to avoid generating waste in the first place by:

Risk	Receptor/s	Mitigation	Site Team Responsibilities
		Ensure contents of skips are delivered to a licensed recycling plant or waste transfer station. Check carriers Waste Carriers certification is valid. Ensure all Duty of Care information is on Waste Transfer Notes. All waste will be managed and disposed of in accordance with the Waste Duty of Care i.e. Waste shall be stored safely and securely. Waste will only be removed from site by a registered waste carrier. Waste must be disposed of to a facility properly licensed to deal with the waste. · Skip provider separates the waste from the skip at their transfer station for recycling. Recycling figures are provided to the buying department so that records can be maintained. Ensure all skips are labelled with correct waste stream and European Waste Catalogue (EWC) code. Any windblown litter to be gathered and placed in correct waste stream skip.	<u>Preventing waste</u> Store materials neatly to avoid damage and loss Think of ways to reduce waste Reduce the amount of waste created on site Keep materials in their packaging to protect from damage <u>Preparing for re-use</u> Keep significant offcuts for use elsewhere Reuse materials until no longer fit for purpose e.g. shuttering, fencing Reuse materials for alternative purposes e.g. use old shuttering ply for protection <u>Recycling</u> Recycle materials where possible Segregate different waste types Store waste in the appropriate skip or container until removed from site Make sure skips are labelled clearly Ensure housekeeping on sites is well maintained Clear up when work is carried out <u>Don't</u> Put waste materials into the wrong waste container Open new cans or pallets before the ones in use are empty Leave materials unprotected and where they are likely to be damaged, for example by rain or mud Burn or bury waste Mix different types of waste – it prevents recycling Leave materials at risk from site traffic movement

4 Site Operations

The measures set out below will be adhered to throughout construction of the proposed scheme. Where required task specific RAMS will be created to include specific environmental, health & safety mitigation for site operation. A pollution prevention and incident response plan can be found in Appendix E.

Table 4.1 Table of Site Operations.

Site Operation Management	Detail
Enabling works: Site compound, material laydown and stockpile areas	All temporary works required to facilitate construction of the proposed scheme will be located in the same field as the proposed DAF building, to the south-west of the building location. Temporary infrastructure required includes a temporary haul road, a car park, two compound areas (compound A and compound B), site offices and a material laydown area. Topsoil will be stored in a 2m wide bund located along the southern boundary of the proposed site which will be fenced off by silt fencing to prevent runoff due to site topography. Temporary silt pond will be established in the compound B area to allow desilting of surface water runoff. Oil spill kits will be located in the car park, next to the concrete wash out container in compound A, in compound B and next to the proposed DAF building where majority of the construction works will take place. Chemical spill kits will be located in compound B and next to the proposed DAF building.
Water consumption	Potable water will be provided via water bowsers on site.
Wastewater	Sealed waste tank will be provided to collect wastewater, it will be regularly emptied and disposed offsite.
Energy use	The intention is to utilise the power supply at the existing WTW subject to an agreement with Welsh Water.
Lighting Management	Where possible, there will be no nighttime working. Artificial lighting will be minimised across the site and directed away from the trees and hedgerows and downwards to reduce any potential ecological impact.
Traffic Management	The site is likely to be accessed via A465, through Glynneath via B4242 High Street, Aberdare Road and Pontneathvaughan Road to Pontneddfechan village. From the village, construction traffic will utilise Ystradfellte Road towards an unclassified road connecting the Ystradfellte Road with the site. A Construction Traffic Manangement Plan (B17545-123532-14-XX-PR-NA-CJ0081) is produced to manage vehicle and pedestrian movements in the area and specifies detailed measures to control HGV movements.
Working Hours	The following working hours will be adhered to: • March to September – Monday – Saturday (including Bank Holidays) 07:00 – 19:00 – Sunday 07:00 -18:00 • October to February – Monday – Saturday (including Bank Holidays) 07:30 – 18:00 – Sunday 08:00 -17:00 Relevant agreements will be sought if work is planned outside of these hours.

5 Planning Permission, Consents and Permits

Table 5.1 details the consents and permits required for the proposed scheme.

Table 5.1: Consents and permits

Type	Start date	Valid until	Owner	Condition(s)	To be checked (weekly/monthly /annually)
Planning permission	TBC	5 years from planning approval being granted	DCWW	TBC	Weekly
HRA	N/A	N/A	DCWW	Pollution prevention measures. See Section 6.1 for operational mitigation	Annually
Bat licence (for main construction works)	TBC	TBC	TBC	TBC	TBC

5.1 Planning Permission

Construction works may only begin once the planning permission is granted and any pre-commencement planning conditions discharged, if required. Once the planning permission is obtained, the CEMP will be updated in line with any planning conditions.

No works can commence on site until the planning permission is obtained and any pre-commencement conditions are discharged. This section will be updated when planning permission is obtained.

5.2 HRA

A Report to Inform a Habitats Regulations Assessment (HRA) (B17545-123532-14-XX-DR-NA-EI1208 P02) was prepared to assess the likely significant effects of the proposed scheme on the integrity of internationally designated sites. Stage 1 HRA Screening and Stage 2 Appropriate Assessment were undertaken and have concluded that, following the implementation of the relevant mitigation measures included in Section 6.1 below, there are no likely adverse effects on the integrity of internationally designated sites, either alone or in-combination with other projects.

5.3 Protected Species Licence for Bats

A bat licence will be obtained for the construction of the proposed scheme. The CEMP will be updated once the licence has been obtained with any relevant conditions.

No works are to take place prior to the bat licence for the main construction works being obtained. This section will be updated when the licence has been granted.

6 Ecological Protection Measures

Ecological deliverables prepared for the proposed scheme include the following:

- Preliminary Ecological Appraisal Report (B17545-123532-14-ZZ-AS-NA-EI0006 P03)
- A report to inform a Habitats Regulations Assessment (HRA) (B17545-123532-14-XX-DR-NA-EI1210 P02)
- Badger Survey Report (B17545-123532-14-XX-DR-NA-EI0050 P02)
- Hedgerow Survey Report (B17545-123532-14-XX-AS-NA-EI0057 P02)
- Hazel Dormouse Survey Report (B17545-123532-14-XX-DR-NA-EI0055 P02)
- Barn Owl Survey Report (B17545-123532-14-XX-RP-NA-EI0082 P01)
- Bat Survey Report – Confidential (B17545-123532-14-XX-AS-NA-EI0011 P02)
- Ecological Impact Assessment (EcIA) (B17545-123532-14-XX-AS-NA-EI0083 P01)

Those documents present detailed description of the ecological baseline, including designated sites, habitats and protected species identified within the relevant study areas. Additionally, they report on the findings of all ecological walkovers and surveys undertaken to date and on the conclusions of impact assessments.

Unlike the detailed information provided within the above mentioned reports, the sections below focus only on designated sites, habitats and protected species which the proposed scheme has the potential to impact and the relevant mitigation and compensation measures as identified within the EcIA.

6.1 Designated Sites

Based on the current works design and identification of impact pathways laid out within the PEAR, the proposed scheme has the potential to impact the following designated site:

- Coedydd Nedd a Mellte SAC.

The Stage 1 HRA Screening has identified potential impact pathways on this internationally designated site as a result of construction and operation of the proposed scheme. It has concluded that a pollution or silt incident during construction could result in a significant effect on Coedydd Nedd a Mellte SAC habitats via connected watercourse. Additionally, the following pathways during the operational phase of the proposed scheme were identified:

- Above ground pollution event during operation via contaminated run-off either entering hydrologically connected undesignated watercourses or dispersing though functionally linked terrestrial habitat (the SAC is located downhill from the proposed scheme);
- Below ground pollution event during operation as a result of burst pipes, which could result in sub-surface percolation of contaminated water into hydrologically connected undesignated watercourses or within functionally linked terrestrial habitat; or
- Airbourne pollutant emissions as a result of chlorine gas leak incidents.

The Stage 2 Appropriate Assessment has identified the following relevant mitigation:

- Pollution prevention measures will be implemented during the construction process to control surface water run off with the aim of avoiding silt and/or pollutants entering watercourses leading to the SAC. These measures are set out in Sections 7 and 8.
- A caustic dosing area will be installed in the new DAF building, which will integrate the following pollution prevention measures:

- All chemicals are bunded with 110% bunds and dual contained pipework and leak detection.
- 24/7 telemetry system to ensure issues are responded to in a timely manner.
- Chemical delivery areas implemented to catch any spillage during chemical deliveries, and chemical waste tank to store the spillage.
- Forced ventilation system for chlorine gas in the existing WTW.

Other chemicals including chlorine dosed post DAF and ferric sulphate/aluminium sulphate coagulant pre-DAF will be regulated within existing facilities that have the four aforementioned pollution prevention measures in place, and new dosing lines from the existing WTW to the new DAF plant will be dual contained and consist of leakage detection.

Following the implementation of the above mentioned mitigation measures, there are no residual effects on the qualifying features of the Coedydd Nedd a Mellte SAC and no appreciable adverse effect on integrity of the qualifying features as a result of the proposed scheme.

6.2 Habitats

Based on the current works design, the results of the species-specific survey work and identification of impact pathways laid out within the PEAR, the proposed scheme has the potential to impact the following habitats:

Table 6.1 Identified Habitats on site

Habitat	Details	Mitigation / Compensation
Other lowland dry acid grassland	An acid grassland road verge alongside the existing access track to Cefn Dryscoed WTW. Ant hills and pignut were present, both of which can be indicators of ancient grassland.	The grassland road verge will be safeguarded throughout the construction phase of works, with fencing installed and sign-posted. No machinery or plant will be driven into this area. To protect the retained habitat throughout the construction phase, control measures specified within this CEMP will be implemented to prevent indirect impacts, including run-off and dust deposition. As part of the enhancement of the site, grassland management will be undertaken to improve the quality of this sword.
Other lowland mixed deciduous woodland	A parcel of semi-natural oak sp. woodland was present adjacent to the proposed scheme.	To protect the retained habitat throughout the construction phase, control measures specified within this CEMP will be implemented to prevent indirect impacts, including run-off and dust deposition. Offsite trees will be protected with tree protection fencing in line with BS5837 2012.
Wet heathland with cross-leaved heath – upland (H4010)	A large area of heathland was present to the east of the existing farm track.	To protect the retained habitat throughout the construction phase, control measures specified within this CEMP will be implemented to prevent indirect impacts, including run-off and dust deposition.
Species-rich native hedgerow	A number of native, species-rich hedgerows are present both adjacent to the proposed scheme and existing farm track, and within the footprint of the works.	Loss of a small number of trees/scrub to widen an existing hedgerow gap will be required in order to connect pipework into the existing WTW. All hedgerow habitat will be reinstated upon completion of the works, whilst any trees lost will be replaced at a ratio of 3:1 as a minimum. In addition, a new native hedgerow will be planted as part of landscaping. To protect the retained habitat throughout the construction phase, control measures specified within this CEMP will be implemented to prevent indirect impacts, including run-off and dust deposition. Offsite trees will be protected with tree protection fencing in line with BS5837 2012.

Habitat	Details	Mitigation / Compensation
Purple moor-grass and rush pastures	An area of rush pasture is present on common land, dominated by soft rush, with occasional sharp-flowered rush, marsh thistle and creeping bent.	To protect the retained habitat throughout the construction phase, control measures specified within this CEMP will be implemented to prevent indirect impacts, including run-off and dust deposition.

6.3 Species

Based on the current scheme design, the results of the species-specific survey works and identification of impact pathways included within the PEAR, the proposed scheme has the potential to impact the following species/species groups:

- Breeding birds (including barn owl)
- Bats
- Badgers
- European hedgehog
- Other burrowing mammals
- Reptiles
- Amphibians
- Invertebrates
- Vascular plants

6.3.1 Breeding birds

A barn owl nest box was present within Cefn Drysgoed WTW. Due to the degraded condition of the nest box located 13m above a pedestrian walkway within the existing WTW and used by barn owls, a licence was obtained from Natural Resources Wales (NRW) to remove the nest box in 2025 due to the health and safety risk it posed to site personnel and to benefit the species (licence to take a nest for the purpose of conservation and preserving public safety, licence number: S095887/1).

Two new nest boxes were installed prior to the removal of the box, one of which is located on the northern boundary of the WTW site. The new boxes are being monitored annually for three years as part of the management of the site.

The following measures will be put in place to minimise impacts to breeding birds:

- Any vegetation clearance required will be undertaken outside of the breeding bird season (March to August inclusive), where possible.
- Pre-clearance checks will be undertaken by an experienced ecologist to identify any evidence of nesting birds. If a bird's nest is found, it will be left *in-situ* and protected from the works by a temporary buffer zone. No works will be undertaken in the buffer zone until the birds have fledged, which may take up to 6 weeks depending on the species present.
- As far as possible, works within the existing Cefn Dryscoed WTW will be undertaken outside of the core breeding season for birds to prevent disturbance to the species using the existing buildings to nest, alongside barn owl which could be nesting within a box to the north of the site (March to August).
- All construction traffic, machinery and deliveries should be kept to the dedicated temporary site compound. No machinery or plant should be taken into the existing WTW site unless necessary to undertake the works.

- A pre-works check of the existing barn owl nest box will be carried out prior to works commencing. Should evidence of breeding barn owl be identified, no works will be undertaken within 100m of the nest until the chicks have fledged.
- In the long-term loss of suitable habitat will be compensated through the provision of nest boxes, planting of broadleaved trees and grassland management.

6.3.2 Bats

There were a number of bat surveys undertaken for the proposed scheme which identified bat roosts within two of the buildings within the existing WTW. Activity surveys recorded 12 species/species groups using the site to forage/commute.

The existing buildings within Cefn Dryscoed WTW support four species/species groups of roosting bat. This includes maternity, hibernation and day roosts within the Main building, which are located within 30m of the proposed scheme. In addition, the Centrifuge building was also found to support a bat roost, forming part of the maternity colony using the site. Whilst this building is over 30m away from the Proposed Development, it forms an important part of the roost resource for the species using the site.

The hedgerows, woodland and tree lines immediately adjacent to the proposed scheme provide suitable habitat for a wide range of bat species. Bat activity surveys recorded 12 species/species groups, with high levels of activity recorded within Cefn Dryscoed WTW. Low level of activity was recorded along a hedgerow forming the eastern boundary of the proposed scheme.

The following measures will be put in place to minimise impacts to roosting bats:

- Works likely to impact roosting bats (i.e. works within 30m of the known roosts within the existing Cefn Dryscoed WTW) will be undertaken outside of the maternity season (May to August inclusive).
- Where possible, works will also be timed to avoid the hibernation season (November to March). However, as the construction period is 15 months long (July 2027 to September 2028), works within proximity to the existing WTW buildings during the winter season are unavoidable. Where necessary, temporary noise barriers will be installed to reduce impacts to roosting bats.
- Bat boxes will be installed as alternative roost provision, prior to works being undertaken.
- Toolbox talks will be delivered to all site personnel by a bat licenced ecologist.
- A pre-works check will be undertaken of all trees known to support features suitable for roosting bats. Where necessary, trees will be soft-felled (i.e. limbs should be carefully removed and left overnight before being removed or chipped).
- All construction traffic will be kept to the dedicated temporary site compound. No machinery or plant will be taken into the WTW site unless necessary to undertake the works.
- Retained woodland parcels and trees will be safeguarded in line with BS5837:2012.
- All external lighting will be fitted with hoods, backboards or equivalent to prevent light spill onto retained habitats.
- As far as possible, construction works will be undertaken during daylight hours. Where this is not possible, directional lighting will be used, facing away from the tree and scrub lines bordering the site, and away from roost features.
- All works likely to constitute disturbance will be carried out under an NRW protected species licence, with appropriate measures included within a method statement and agreed with NRW.

- In the long-term loss of suitable habitat will be compensated through the provision of bat boxes, planting of broadleaved trees and grassland management to benefit invertebrates.

No works to take place prior to the bat licence being obtained. This section will be updated when the licence has been granted.

6.3.3 Badger

The presence / likely absence surveys were carried out on the 27th March 2025 to identify any evidence of badger activity or their setts within the survey area. No evidence of badger was recorded. However, badgers are a highly mobile species which readily moves between setts and/or creates new setts. As such, new sett could be created prior to construction start. As a result, the following measures will be put in place to minimise impacts to badgers:

- As this species is highly mobile and regularly creates new setts, a pre-works check will be undertaken to identify any new evidence of badger. This update survey will be carried out by a suitably qualified ecologist a minimum of 8 weeks prior to works commencing.
- Excavations will be fenced off and/or covered to avoid animals becoming trapped with mammal ladders installed where required.
- Spoil piles will be covered over.
- No equipment or chemicals will be stored within habitat suitable for badgers (including fuel for equipment and machinery).
- Mitigation in respect of bats and lighting will also reduce impacts on badger.

6.3.4 European hedgehog and other mammals

Incidental evidence of other mammal species was recorded during the badger presence/likely absence survey, including evidence of mole hills and mammal pathways. As such, the following measures will be put in place to minimise impacts to European hedgehog and other mammals:

- A pre-works check will be undertaken for mammal burrows by an experienced ecologist. Where present, burrows will be carefully excavated by hand or small machine in sections under ecological supervision to allow mammals to escape, this includes mole hills.
- Safeguards described below in relation to reptiles will be sufficient to safeguard hedgehog, if present, during any vegetation clearance. Any hedgehogs found will be relocated to suitable habitat outside of the works area.

6.3.5 Reptiles and amphibians

The following measures will be put in place to minimise impacts to reptiles and amphibians:

- All vegetation clearance will be undertaken in a phased manner, under ecological supervision. The removal of any hibernacula (including stone walls) will be undertaken by hand between April and the end of October (subject to weather conditions), whilst reptiles and amphibians are active.
- A toolbox talk will be provided to all those working on-site.
- If reptiles or amphibians are found, work would cease until advice has been obtained from the site ecologist.
- In the long-term, the loss of suitable habitat will be compensated through:
  - Creation of refugia in the form of a log pile within broadleaved woodland in Cefn Dryscoed WTW.
  - Creation of a pond within a dedicated enhancement area.

– Grassland management to improve the quality of the existing modified grassland within a dedicated enhancement area.

6.3.6 Invertebrates

In the long-term, the loss of suitable habitat will be compensated through habitat enhancements within a dedicated enhancement area. This will include:

- Grassland management to improve the quality and species diversity of the swards.
- Planting of broadleaved trees and orchard planting to provide habitat suitable for a range of invertebrate species.
- Creation of a pond to provide habitat for aquatic species.

6.3.7 Vascular Plants

The following measures will be put in place to minimise impacts to vascular plants:

- The populations of notable species will be sign-posted to alert all site personnel to their presence.
- Best practice safeguards will be employed to reduce the effects of dust and run-off during construction.

6.4 INNS management

Control measures to prevent the spread of Himalayan Balsam identified on site will include:

- Creation of a site-specific INNS Management Plan.
- The demarcation of invasive species on site throughout the construction phase.
- A site-specific toolbox talk to be delivered to all construction staff prior to the commencement of the works and biosecurity measures.
- An update check for invasive species should be undertaken by a suitably experienced ecologist prior to works commencing.

6.5 Ecological Enhancement measures

The following habitat enhancement measures are proposed:

- Orchard planting: An orchard will be planted within existing grassland (0.15ha). The trees will be planted a minimum of 3m away from underground pipelines to prevent damage as the trees mature. The trees will be mulched and monitored to ensure they mature, providing habitat for invertebrates both in bark and fruit. Species will be obtained from a Welsh nursery and will be adequately watered to ensure successful establishment.
- Pond creation: A pond will be created within the area of orchard planting. Native aquatic species will be planted around the margins of the pond, providing habitat suitable for invertebrates, amphibians and reptiles. The pond is located at the highest point, avoiding run-off from adjacent pasture fields. It will be designed with variation in depth to provide a range of conditions and water levels and will be allowed to replenish naturally from rainwater.
- Woodland planting: An area of broadleaved woodland will be planted to increase canopy cover, provide shelter for a range of species and improve carbon capture and heat retention (0.09ha). Species will include oak sp. and field maple, alongside understorey species such as holly and hawthorn.
- Tree planting: A line of broadleaved trees will be planted along the southern boundary of the pasture field, consisting of English oak and field maple (129m in length). The trees will be

allowed to mature to provide opportunities for a range of species including bats and birds and will improve connectivity across the site.

- Hedgerow creation: A native, species-rich hedgerow will be planted adjacent to the new access track for the DAF building (52m in length). The hedgerow will be planted with a minimum of five native woody species.
- Stone wall: A dry-stone wall will be built around the perimeter of the new DAF building. The wall will provide opportunities for a range of species to shelter, including reptiles, amphibians, invertebrates and small mammals.
- Artificial lighting: The existing artificial lighting within Cefn Dryscoed WTW will be reviewed by an experienced bat ecologist and will be modified to reduce disturbance to bats. Motion sensors will be replaced and timers modified to reduce the length of time light is on each night. Where required, hoods or cowls will be fitted or the direction on the lighting will be modified to reduce light-spill.
- Bat boxes: One bat box will be installed on a retained tree line bordering Cefn Dryscoed WTW (in addition to any compensation boxes installed as alternative roost sites under an NRW licence). Where possible, bat boxes, bricks or suitable features will be embedded in the design of the new DAF building.
- Bird boxes: Where possible, nest boxes will be installed on the exterior of the DAF building. The boxes will be tailored to the species known to be present within the area.
- Artificial refugia: One log-pile will be created to provide opportunities for reptiles, amphibians, invertebrates and hedgehogs. The refugia will be located within woodland edge habitat within Cefn Dryscoed WTW.

A habitat enhancement plan is provided within Appendix B, which shows the approximate location of each proposed enhancement. The exact locations will be micro-sited by an experienced supervising ecologist.

7 Pollution Prevention

The details below outline the pollution prevention requirement for the project. Details of MMBs Environmental Standard 003 Pollution Prevention can be found in Appendix D. The site-specific Pollution Incident Response Plan can also be found in Appendix E. PPG5 Pollution Prevention Guidelines is no longer published but provides best practice.

7.1 Fuel & Refuelling

Controls for fuel storage and refuelling include:

- Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable;
- Fuels stored at least 10m away from any watercourses, ditches or drainage channels and outside of the flood plain;
- Biodegradable oils will be used in construction plant where practicable and possible;
- Plant nappy/drip tray in place during refuelling operations;
- Spill kits in all operational plant;
- Plant and tools will only be refuelled within the designated refuelling area, with a plant nappy/drip tray in place, and a spill kit available. Fuel storage will be located in the site compound.
- All containers/ tanks labelled with contents and capacities;
- All ancillary equipment (valves, hoses etc) to be contained within designated refuelling bowser.
- Portable fuel tanks double bunded with a capacity of at least 110%;
- Adequately sized fuel/oil spill kit available in fuel storage area;

Further details can be found in the CMP. Emergency Response Plan to be created and located around site.

7.2 Chemical COSHH Storage

The chemical/Control of Substances Hazardous to Health (COSHH) store will be located within the site compound. Alternatives to COSHH substances would be sought before proposing any potentially harmful substances to be used in construction.

As a minimum, controls for chemical/COSHH storage include:

- Provision of a secure bunded area;
- Chemicals stored at least 10m away from any watercourses, ditches or drainage channels and outside of the flood plain;
- All Standard Data Sheets (SDS) for all chemicals/ substances available;
- All containers labelled and sealed when not in use;
- All containers inspected regularly and fit for purpose e.g., free from damage, no leaks' and;
- Operatives to receive COSHH briefing and correct training before use.

Specific details of substances on site can be found within the CMP.

7.3 Wash Down Area

The concrete washdown area will be located in the Compound A area. The concrete washdown facility will have the following control measures:

- Will be sited away from watercourse and surface water drains;
- Located on an impermeable designated area;
- Settlement and recirculation system for water reuse, and
- Settled solids will be removed regularly and appropriately disposed of.

7.4 Surface Water Management

Should any pumping of standing water be required, it will be pumped onto vegetated permeable ground at least 10m from any watercourse. Silt netting is to be deployed around the perimeter of the areas where disturbed ground will be present and at key points where surface water run-off is anticipated or observed.

Existing drainage ditches will be surveyed and appropriately cleared to ensure they have the capacity to receive surface water runoff. At any points of discharge into or from these areas the surface waters will be passed through a silt sock (where practical) and onto a silt mat for further control. Hay bales will be available for additional temporary filtration where necessary. Particular attention will be paid during or post prolonged rainfall to ensure the control measures are functioning efficiently and to prevent localised flooding. This is being monitored and recorded by the site's Works Manager, and will be reviewed as part of daily checks.

7.5 Silt and Run Off

The following mitigations will be adhered to:

- No excavated material to be stored within 10m of the watercourse;
- Reuse excavated material on site where possible;
- Weather forecast to be checked and recorded daily, and
- Emergency response plan to be created and briefed to all operators and visitors on site.

7.6 Pollution Prevention Control Measure Inspections

Weekly inspections of the critical control measures will be carried out and recorded in the site diary. During periods of heavy rainfall, these inspections will be undertaken more frequently, with any required maintenance carried out and recorded as appropriate. These control measure include:

- Spill kits within the work area, plant, refuelling area and within the site compound.
- Emergency spill kits/pollution prevention measures.
- Silt netting surrounding work areas and stockpiles where relevant.

Further plant inspections are carried out and recorded daily to identify any leaks or emission defects.

8 Soil Management

The following measures will be implemented during the construction and restoration phase of the proposed scheme.

8.1 Topsoil Strip

As part of the enabling works, all topsoil within the construction area will be stripped and stored in a 2m-wide bund located along the southern boundary of the proposed site. Topsoil stripping will be carried out in line with the below:

- Topsoil stripping or handling will be carried out following *BS3882* and the Construction code of practice for the sustainable use of soils on construction sites;
- Handling of topsoil will be kept to a minimum to avoid damaging it;
- If sustained heavy rainfall (>10mm in 24 hours) occurs during soil stripping, stockpiling or placement operations, work will be suspended. Work will not be restarted until the ground has had at least a full dry day, or soil can be demonstrated to pass the soil consistency field tests;
- Similarly, it is recommended that handling is not undertaken when there is heavy rain (i.e., slow-moving depressions or intense showers) or there are other forms of heavy precipitation (e.g., hail, snow) for a spell. This includes instances in which soils are waterlogged, frozen, covered by snow or pools of water are present. In these instances, following the end of precipitation or the removal of unsuitable ground conditions, soil must be demonstrated to pass the field tests before it may be handled again;
- Stripping will be undertaken during the driest possible conditions;
- Tracked equipment will be used to reduce compaction wherever practicable;
- Vehicles required for stripping and haulage will stay on the designated routes to avoid additional compaction;
- Wheeled vehicles will be kept off topsoil; and
- Dust generation will be kept to a minimum to avoid air pollution.

8.2 Subsoil Strip

Subsoil will be excavated to facilitate the DAF building and will be disposed offsite. Temporary storage of subsoil might be required during excavations to allow efficient disposal operations.

8.3 Stockpiles

- Topsoils and subsoils will be stockpiled separately to limit mixing and soil quality deterioration;
- Topsoil will be stored in a maximum height of 2m in accordance with BS3882;
- Topsoil bund will be covered by a semi permeable membrane so it stays moist but reduces erosion ;
- No trafficking on stockpiles, install fencing where necessary; and
- The topsoil bund will be formed by loosely tipping the topsoil, shaping form the side only and without running machinery on the heap at any time.

8.4 Excavations

- All excavations shall be assumed to be unstable. No man entry into unsupported excavations will be allowed without a risk assessment; and
- Any groundwater removed from excavations would be disposed of appropriately.

8.5 Earthworks, Construction and Track out (if required)

The following measures will be implemented during the construction and restoration phase of the proposed scheme: -

- The access road on site will be maintained in good condition and free from potholes. These will be inspected regularly for integrity and the site team will instigate necessary repairs to the surface as soon as reasonably practicable;
- Vehicles entering and leaving the sites will be covered to prevent escape of materials during transport;
- The site will avoid explosive blasting, using appropriate manual or mechanical alternatives;
- Sand and other aggregates will be stored in bunded areas and are not allowed to dry out;
- Water-assisted dust sweeper(s) will be used on the access and local roads, to remove, as necessary, any material tracked out of the site;
- All routes across the site will be compacted and dampened down when dry as necessary using appropriate water source such as mains connection or towed sprinkler bowsers;
- A speed limit of 10mph will be maintained on access roads located within the proposed site; and
- Fuel, equipment and construction materials will be stored to minimise the risk of water pollution as per the Pollution Prevention Plan.

9 Nuisance

Table 9.1 considers the potential sources on nuisance during construction of the proposed scheme and the associated mitigation measures.

Table 9.1. Nuisance aspects on site

Aspect	Consideration
Dust & Air Quality	The following measures will be adhered to during construction: - ● Site layout has been planned so that machinery and dust causing activities including material are located away from sensitive receptors; ● Enclose site or specific operations, where possible, when there is a high potential for dust production, e.g. breaking out concrete; ● 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-potable water where possible and appropriate; ● Materials that have a potential to produce dust will be removed from site as soon as possible, unless being re-used on site. If they are being re-used on site they will be covered as deemed necessary.
Noise & Vibration	Best Practicable Means (BPM) of noise control will be applied during construction works to minimise noise (including vibration) to sensitive receptors from construction activities. This will include the following: ● Control of delivery areas and times and management to prevent queuing of site traffic at access points; ● Care will be taken when unloading vehicles to avoid un-necessary noise; ● Equipment will be maintained, in good working order, and is used in accordance with the manufacturer's instructions and in a manner to minimise noise emissions; ● Compressor, generator and engine compartment door will be kept closed; ● Equipment will not be left running unnecessarily; ● Materials will be lowered instead of dropped from height; ● Use of adjustable or directional audible vehicle-reversing alarms or use of alternative warning systems (for example white noise alarms); ● Many of the activities which generate noise can be mitigated to some degree by careful operation of machinery and use of tools. This will be addressed by tool-box talks and site inductions; and ● Inform nearby Noise Sensitive Receptors (NSRs) in advance of noise generating construction activities and keep them up to date with progress and changes. They will also be provided with a contact number to raise any concerns.

10 Waste Management

A Site Waste Management Plan (SWMP) will be put in place for the works to encourage the reuse of suitable materials. Opportunities to minimise generated waste will be identified and evaluated throughout the project life cycle. The following mitigation measures will also be put in place:-

- Prior to works commencing carry out a waste minimisation audit to identify any areas where waste generated by this scheme could be reduced;
- Reuse materials where possible;
- Recycle waste where possible;
- Waste will be stored in a designated area as set out in the CMP.
- Waste to be stored in suitable containers of sufficient capacity to avoid loss, overflow or spillage.
- Skips to be covered or enclosed,
- Separate waste containers will be provided on site to create sperate hazardous and non-hazardous waste streams to maximise the potential for recycling and minimise contamination between waste streams;
- Ensure that the waste containers are clearly marked;
- Keep site clean and ensure that waste is collected regularly;
- Appropriate off-site disposal to an appropriately permitted waste facility for waste generated on site, ensure waste management contractors hold appropriate licences;
- Designated spoil areas will also be present on site in order to prevent the loss of materials; and;
- Any soil excavated from the known extents of Himalayan Balsam will be disposed off-site as controlled waste.
- As specified in OES2 section 3.6: No waste shall be burnt on site.

11 Landscape and Visual Amenity

A Landscape and Visual Impact Assessment (B17545-123532-14-XX-RP-NA-EI0089 P01) has been prepared for the proposed scheme to assess the impact of the construction and operation of the proposed scheme on the landscape character and visual amenity. The assessment has identified the following mitigation to reduce the potential effects during construction:

- Locate the construction compound on lower ground to reduce visibility from nearby PRoWs and the access route.
- Restrict the height and spread of material stockpiles to avoid creating prominent temporary features on the skyline.
- Use muted colour Heras fencing or timber hoarding where appropriate to reduce visual clutter and integrate temporary boundaries into the rural setting.
- Minimise construction lighting, using low intensity, directional fittings to avoid unnecessary light spill–particularly important given the site's location within the International Dark Sky Reserve.
- Retain and protect existing boundary features, including dry stone walls, hedgerows and woodland edges, through exclusion zones and protective fencing.
- Avoid unnecessary vegetation removal, particularly along the access track and around existing screening trees.
- Manage construction traffic to limit vehicle movements on the more visually sensitive sections of the Ystradfellte Road (around viewpoint 08) and to reduce disturbance to tranquillity.
- Prioritise early establishment of mitigation planting, especially new hedgerow and boundary tree planting, where practicable to deliver early screening benefits.
- Use carefully selected construction colours and finishes (e.g., non reflective materials, darker tones on compound buildings) to minimise temporary visual contrast with the surrounding upland landscape.
- Control dust and soil disturbance through standard best practice measures to prevent noticeable short term changes in landscape condition.
- Plan crane operations sensitively, limiting duration and visibility of crane booms where possible and avoiding extended periods of skyline intrusion.

11.1 Long-term management and monitoring

A Landscape and Ecology Management Plan (LEMP) (B17545-123532-14-XX-PR-NA-EI0085) has been produced and includes long-term monitoring of the ecological enhancement area for a period of 30 years. All enhancements will be monitored in years one, two and three post-enhancement to ensure successful implementation i.e. to ensure the planted trees successfully establish. Where needed, corrective actions will be undertaken to ensure the successful enhancement of the area i.e. additional tree planting will be undertaken where saplings fail, or grassland management will be modified until the target species diversity is achieved. Following which the area will be monitored in five-year intervals until the period of 30 years is reached (i.e. years five, ten, fifteen, twenty, twenty-five and thirty).

11.2 Tree protection

A detailed arboricultural survey has been undertaken on the areas affected by the proposed scheme. Where trees or their Root Protection Areas (RPAs) are identified as having potential to

be impacted by the proposed scheme, they will either need to be removed or have protection fencing installed as per BS 5837:2012.

Tree protection barriers are to be installed under arboricultural supervision. All barriers are to be inspected prior to commencement of any construction works.

On completion of the development, an arboriculturalist should look for signs of intolerance to the change of conditions, the effect of the development and any accidential damage to retained trees, to identify the need for further tree works in addition to those originally specified at the outset of the project.

Please make reference to the following:

- Arboricultural Impact Assessment (B17545-123532-14-XX-RP-NA-EI0062)
- Tree Constraints Plan (B17545-123532-14-XX-DR-NA-EI1206)
- Tree Protection Plan (B17545-123532-14-XX-DR-NA-EI1207)

12 Archaeology

A Historic Environment Desk Based Assessment (B17545-123532-14-XX-RP-NA-EI0063 P02) has been prepared for the proposed scheme. It identified ridge and furrow within the site, and the potential for remains relating to medieval/post-medieval agriculture. During the stakeholder engagement, Heneb, the Trust for Welsh Archaeology, have recommended that a geophysical survey is undertaken to determine the requirements for archaeological mitigation.

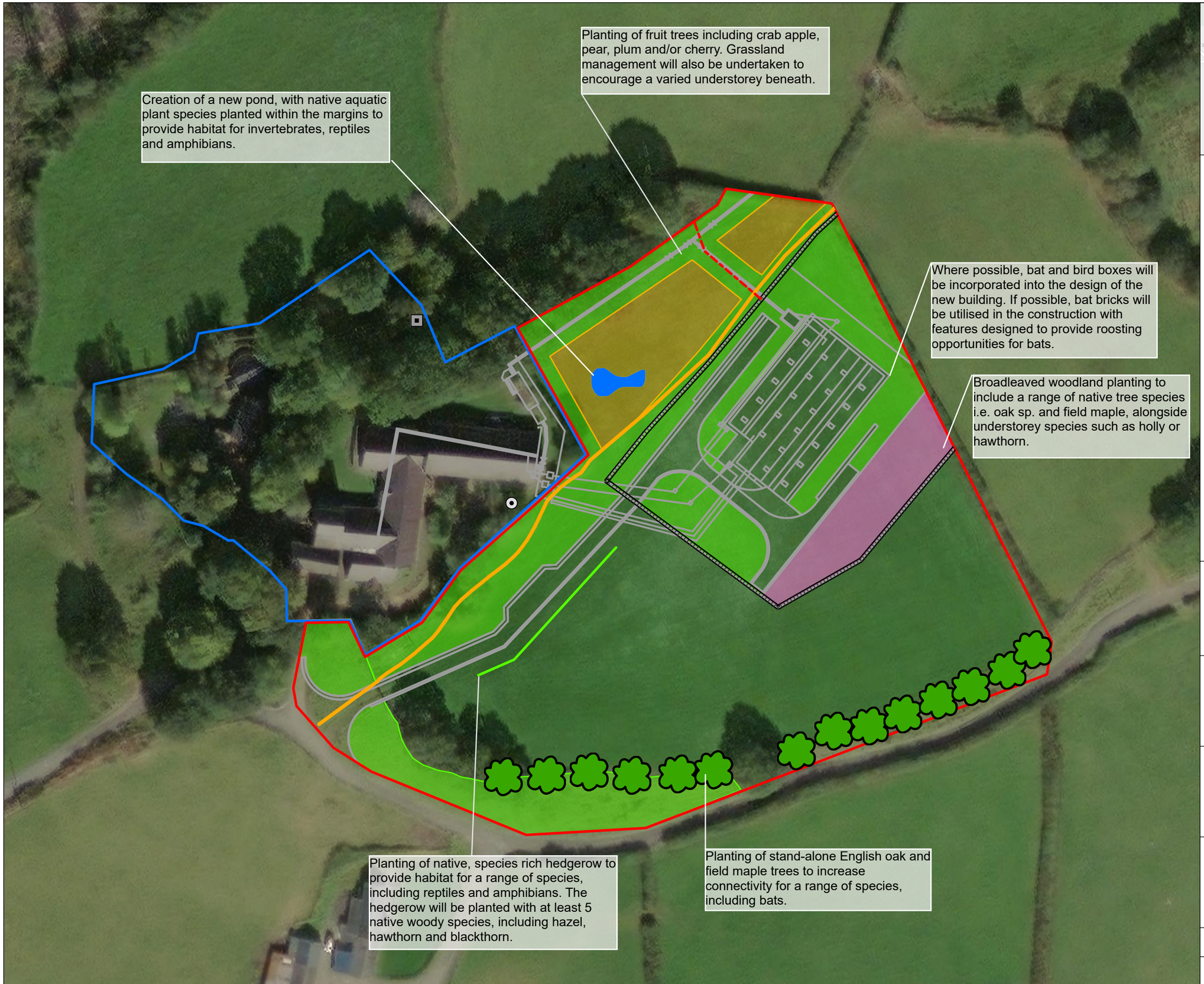
Following the completion of the geophysical survey planned for the spring of 2026, this section of the CEMP will be updated to capture any relevant archaeological mitigation, if required.

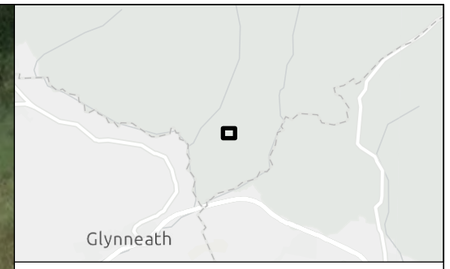
Appendices

A. Environmental Document References

Document Name	Document Reference
Site Boundary Plan	B17545-123532-14-XX-DR-CA-PN1205 P01
Proposed Works Site Layout	B17545-123532-12-ZZ-DR-CA-PN1201 P02
Proposed Cross Site Elevations	B17545-123532-12-ZZ-DR-CA-PN1202 P03
Enabling Works Layout Plan	B17545-123532-12-XX-DR-CA-PN1203 P02
Lighting Plan	B17545-123532-14-ZZ-DR-EA-PN1225 P01
Traffic Management Plan	B17545-123532-14-ZZ-DR-NA-EI1221 P02
Pollution Prevention Plan	B17545-123532-14-ZZ-DR-NA-EI1220 P01
Tree Constraints Plan	B17545-123532-14-XX-DR-NA-EI1206 P02
Tree Protection Plan	B17545-123532-14-XX-DR-NA-EI1207 P03
Landscape Proposal Plan	B17545-123532-14-XX-DR-NA-EI1222 P02
Landscape Sections	B17545-123532-14-ZZ-DR-NA-EI1224 P01
Planning, Design and Access Statement	B17545-123532-14-XX-RP-NA-EI0079 P01
Preliminary Ecological Appraisal Report (PEAR)	B17545-126532-14-ZZ-AS-NA-EI0006 P03
Ecological Impact Assessment (EcIA)	B17545-123532-14-XX-AS-NA-EI0083 P01
Historic Environment Desk Based Assessment	B17545-123532-14-XX-RP-NA-EI0063 P02
Bat Survey Report - Confidential	B17545-123532-14-XX-AS-NA-EI0011 P02
Barn Owl Survey Report	B17545-123532-14-XX-RP-NA-EI0082 P01
Badger Survey Report	B17545-123532-14-XX-DR-NA-EI0050 P02
Hazel Dormouse Survey Report	B17545-123532-14-XX-DR-NA-EI0055 P02
Hedgerow Survey Report	B17545-123532-14-XX-AS-NA-EI0057 P02
Green Infrastructure Statement	B17545-123532-14-XX-BR-NA-EI0084 P01
A report to inform a Habitats Regulations Assessment (HRA)	B17545-123532-14-XX-DR-NA-EI1210 P02
Arboricultural Impact Assessment	B17545-123532-14-XX-RP-NA-EI0062 P02
Landscape and Visual Impact Assessment (LVIA)	B17545-123532-14-XX-RP-NA-EI0089 P02
Landscape Ecological Management Plan (LEMP)	B17545-123532-14-XX-PR-NA-EI0085 P01
Construction Traffic Management Plan (CTMP)	B17545-123532-14-XX-PR-NA-CJ0081 P01
Drainage Statement	B17545-123532-14-XX-NN-CA-EI0093 P01

B. Habitat Enhancement Plan





- Planning application boundary, land to be purchased by DCWW
- Cefn Drysgoed WTW, existing DCWW land ownership'
- Bat box
- Hibernacula
- Line of trees
- Works Design
- Public footpath
- Dry stone wall
- Farm Access
- Native hedgerow planting
- Grassland Management
- Orchard Planting
- Pond
- Woodland Planting

Coordinate system: British National Grid; Datum: OSGB 1936

Data sources: Survey data and Work plans: Mott MacDonald (2025).

Microsoft, Vantor, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

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Dŵr Cymru Welsh Water

Cefn Dryscoed DAF

Habitat Enhancement Plan

Drawn	GIS Checked	Checked	Approved
LJ	DE	AD	SA
Scale at A3	Status	Revision	Security
1:1,000	INF	01	STD

0 20 40 60 80 m

B17545-123532-14ZZ-DR-NA-EI0004

C. Planning Permission, Consents and Permit Decisions

To be updated once all permissions, consents and / or permits are granted.

D. MMB Operational Environmental Standards

Operational Environmental Standard 001
Ecology and Mitigation

0	General
0.1	Any deviations from this Standard must be requested using the company standard Permit to Deviate form on Xpedeon which must be assigned to an Operations Manager or Director for authorisation. Authorisation must be obtained prior to the activity or process commencing.
0.2	Definitions: 1. Ecology - Ecology is the study of how plants and animals interact with one another and their physical surroundings. 2. Mitigation - Measures implemented to prevent or lessen the adverse impact of planned activities. 3. Habitat - Each animal or plant lives in its own Habitat, which are dependent on Soils, Climate, Species Interaction & Human Impact including woodland, grassland, watercourses and heath. On a smaller scale, hedgerows, old trees and even brownfield or derelict sites can be habitats. 4. Biodiversity - Biodiversity is a measure of variety of plants and animals within a particular area. 5. Designated/Sensitive Sites - These are designated on a Local, National or European scale, examples of these include but not limited to, Sites of Special Scientific Interest (SSSI), Special Protection Area (SPA) or Special Area of Conservation (SAC), RAMSAR etc. 6. Protected Species - Defined under the Wildlife and Countryside Act. Protected species are plants and animals that are afforded special protection from harm and disturbance. 7. Invasive Non-Native Species (INNS) - Invasive species are plants and animals that are non-native and adversely affect the balance of the environment. E.g. Japanese knotweed, Himalayan Balsam. 8. Ecological Licence/Permission - A licence/permission issued by a Regulator to allow disturbance or destruction of habitat or protected species under certain conditions. E.g. HRA (Habitat Regulations Assessment), SSSI Assent (Permissions acquired from Natural England to allow works to take place within a designated site), EPS (European Protected Species) Licence

<table>
<tr><td></td><td colspan="2">9. Competent Person - Environmental Coordinator/QES advisor or Ecologist who has the necessary training, knowledge, experience, ability and, where applicable, holds relevant permissions and/or licenses.</td></tr>
<tr><td>0.3</td><td colspan="2"><u>Introduction:</u>
The identification of potential ecological constraints should be undertaken as early as possible in the life of a project (e.g. at concept phase) to ensure compliance with legislation that protects wildlife and habitats, avoid costly delays and potential loss of reputation and public/client confidence.
Disturbing (which includes killing, taking, injuring or handling etc.) a protected species is a criminal offence and can result in prosecution, fines and/or a custodial sentence.
Damaging a designated site, is an offence, consent should be sought from the Regulator prior to works affecting a designated site or interest feature.
Project activities such as surveys, demolition, site clearance and dewatering can potentially impact on ecology which can result in the:
1. Direct impact on plants or animals.
2. Indirect impact via habitat destruction, noise, dust, vibration, water pollution, light pollution.</td></tr>
<tr><td>0.4</td><td colspan="2">Reference documents:
1. BMS 02-03 Reputation Management
2. BMS 02-06 Management and Control of Design
3. BMS 02-13 Management of Temporary Works
4. OES 002 Waste Management
5. OES 003 Pollution Prevention
6. JNB Ecology Handbook and Ecology Calendar
7. Client Procedures</td></tr>
<tr><td rowspan="2">0.5</td><td>Primary Environment Regulators:
England
Environment Agency (EA)
Natural England (NE)
Historic England (HE)
Marine Management Organisation (MMO) Local Authorities (LA)
Forestry Commission (FC)
Non-Government Organisations (NGOs)</td><td>Scotland
Scottish Environmental Protection Agency (SEPA)
Scottish Natural Heritage (SNH)
Scottish Forestry Commission (SFC)
Non-Government Organisations (NGOs)
Local Authorities (LA)</td></tr>
<tr><td colspan="2">Wales
Natural Resources Wales (NRW)
Cadw (historic environment service of the Welsh Government)
Non-Government Organisations (NGOs)
Local Authorities (LA)</td></tr>
</table>

1.0	Processes and Records
Before Construction Starts:	
1.1	The Site Manager, Temporary Works Designer and Temporary Works Co-ordinator should have attended JNB environmental awareness training or hold a recognised environmental qualification at a comparable level.
1.2	A competent person is to identify ecological constraints, enhancement opportunities and requirement for an ecological baseline survey e.g. a Preliminary Ecological Assessment (PEA)/Phase 1 Habitat Survey/Ecological Memorandum, and/or the need for further surveys. Findings are to be communicated to the site manager. A record of the findings should be kept.
1.3	Pre-start contract documentation (e.g. QES Workbook, CMP, Environmental Action Plan (EAP)) are to identify ecologically sensitive areas and/or protected species within the influence of the CDM boundary and access routes to site. Findings are to be communicated to the site manager. Records should be kept on site.
1.4	Temporary Works planning is to include ecology protection control measures e.g. signage, hedge netting, exclusion zones, newt fencing, excavations, biosecurity arrangements etc.
1.5	Trees likely to be affected by construction activity are to be assessed by a competent person and advice given on root and canopy protection. The Root Protection Area is to be protected, potentially in the form of physical barriers to prevent from accidental damage. Consideration is to be given to nesting bird season (1st March – 31st August, weather dependent) and other potential habitats and species e.g. bats.
1.6	Ecological licences/permits/assents should be obtained prior to start on site where there is a need to disturb or relocate protected species. Ecologist support should be obtained pre-start, where required.
1.7	Ecological licences/permits/assents and their conditions are to be communicated to the site team prior to starting on site.
1.8	Where there is a need to disturb or relocate protected species a suitably licenced ecologist is to be used to carry out the work.
1.9	Site clearance/demolition work is to be planned in accordance with the Ecology and Mitigation calendar to identify any ecological timing constraints. Also refer to clause 1.8.
1.10	Ecological mitigation measures are to be installed in accordance with permits/licences and best practice at site set up and prestart where required. E.g. Great Crested Newt fencing, exclusion zones, signage, biosecurity measures.
During Construction:	
1.11	Ecological licence(s) details identified in survey reports, CMP or EAP are to be reviewed monthly. Onsite ecological conditions are to be reviewed weekly (or more frequent if stated in the licence conditions), including protected species habitats and other associated areas to ensure any licence conditions and site environmental requirements are being met.
1.12	Site layout plans are to clearly identify the presence of sensitive ecological receptors and mitigation measures. Any activities that may adversely affect ecology are to be covered by a Risk Assessment and, where applicable, a Method Statement. The RAMS are to clearly identify control measures to mitigate ecological risks.
1.13	Where applicable, weekly Inspections are to include checks on ecological control measures by the site manager or appointed agent to ensure that they remain effective consider signage, demarcation, newt fencing, any licence requirements etc.

1.14	Ecology surveys, licences/consents and other relevant information are to be readily available on site, stored in the Site Environmental File and referred to when planning tasks.
1.15	Toolbox Talks relevant to the environmental risks on site are to be conducted in advance of the activity taking place and records of attendance is to be maintained in the Site Environmental File.
1.16	Site Manager is to ensure that permits/licences are in date and all conditions are met. Any changes that impact permits/licences are to be communicated to the competent person e.g. Personnel Change, scope change, programme modification.
2.0	Conditions
2.1	The Ecology and Mitigation Calendar is to be displayed on site.
2.2	Site inductions should include any formal ecological licence/permit requirements, or prominent survey findings and their control measures. Any changes/updates are to be discussed at morning briefing.
2.3	Identified ecological risks on site are to be protected from construction activity e.g. signage, netting, settlement tanks, bales, wattles, bag filters, newt fencing, spill kits, containment etc.
2.4	All tree protection measures (e.g. barriers/fencing specified in 1.4) are to be installed, signed and maintained in line with any existing recommendations.
2.5	No habitat clearance should be undertaken in Nesting Bird Season (1st March to August 31st, weather dependent) without completion of nesting bird checks by a competent person with findings recorded. Any nests identified are to be safeguarded from harm.
3.0	Behaviours
3.1	In the event of an unexpected ecological find, site operatives are to stop work and report to the Site Manager.
3.2	No person is to remove or alter ecological mitigation measures unless authorised by the appropriate competent person, supervision maybe required.
3.3	No unlicensed person is to handle any protected species encountered on site unless it is in immediate danger.
3.4	No person is to work within any ecological protection zones without clear instruction issued by a competent ecologist or in an emergency.
3.5	Communications regarding protected species should be limited to those who are likely to influence them e.g. site operatives/visitors. This is to ensure the locations of protected species remains confidential.
3.6	Any failure of ecological control measures is to be reported to immediately e.g. silt protection, Newt fencing etc and repair initiated.

Operational Environmental Standard 002
Waste Management

0.	General
0.1	Any deviations from this Standard must be requested using the company standard Permit to Deviate form on Xpedeon which must be assigned to an Operations Manager or Director for authorisation. Authorisation must be obtained prior to the activity or process commencing.
0.2	Definitions: 1. European Waste Catalogue (EWC) – A hierarchical list of waste descriptions, designated by chapter (industry or process) and then broken down in to waste type. Each waste is given an EWC code which must be used to describe the waste 2. Leachate – A liquid which over the course of passing through material has taken on components of that material, such as chemicals or solids. 3. Premises – A house, office or building, together with its associated land and outbuildings, occupied or operated either by a business or an individual. 4. Product – An asset material that is designed, extracted or manufactured solely for its proposed use. Or a waste material that has been subject to an 'end of waste' test. 5. Standard Industry Code (SIC) – A code which identifies the activity undertaken by the business e.g. JNB registered code: 42210; Construction of utility projects for fluids, 42910; Construction of water projects, 42990; Construction of other engineering projects. 6. Utility – A structure or asset designed with the sole purpose of providing a Civil Service (e.g. Pipeline, Pylon, Spillway etc.). 7. Waste – Material that is either a by-product of a process, surplus to requirements or burdensome to a site's needs. 8. Waste Hierarchy – A legal requirement, ranked actions according to their environmental impact; Reduce – Reuse – Recycle – Dispose. This is known as the waste hierarchy 9. Competent Person – A person who can demonstrate such practical and theoretical knowledge and experience as is necessary to ensure safe & regulatory compliant conditions are achieved/maintained. Waste Sub-Categories: 10. Inert Waste - Waste is considered inert if it is neither chemically or biologically reactive and does not decompose, including rocks, ceramics, concrete, masonry and brick rubble. 11. Non-Hazardous Waste – Waste that is not inert, but similarly is not contaminated, therefore is not considered to be hazardous to human health or the environment (e.g. organic matter, canteen waste, topsoil etc). 12. Stable Non-Reactive Hazardous Waste – Lower tier category of hazardous waste which, in some controlled cases may be disposed of as a non-hazardous waste, subject to the necessary testing and analysis. It can be hazardous in nature, but typically it has lower leachability of contaminants. 13. Hazardous Waste – Waste is considered 'hazardous' under environmental legislation when it contains substances or has properties that might make it harmful to human health or the environment. This does not necessarily mean it is an immediate risk to human health. Hazardous wastes may be corrosive, explosive, oxidising, carcinogenic or flammable. Including asbestos, acids, alkaline solutions, oily sludges, waste oils and wood preservatives. 14. Waste Electrical and Electronic Equipment (WEEE) – Waste category may include electrical panels, fridges, microwaves, pumps, IT equipment, powered tools etc requiring appropriate disposal.

0.3	Introduction: This OES consolidates numerous pieces of UK waste legislation which requires that businesses be responsible for their waste to the point of disposal. Failure to meet these requirements can result in fines and missed opportunity for good waste management. It also details the minimum standards required by both our Clients and the Board, to ensure that we take advantage of these opportunities for enhanced compliance with potential cost and efficiency savings.
0.4	Reference Documents: 1. BMS 02-10 - Procurement; 2. BMS 02-29 - Waste Management (England & Wales) 3. OSS 003 – Event Reporting and Review 4. OSS 113 – Managing and Using Hazardous Substances. 5. CITB GE700 Environment 6. Guidance on the Classification and Assessment of Waste 7. Waste Classification – Guidance on the classification and assessment of waste (WM3).
0.4	Primary Environment Regulators: **England** • Environment Agency (EA) • Local Authorities (LA) • Non-Government Organisations (NGOs) **Scotland** • Scottish Environmental Protection Agency (SEPA) • Local Authorities (LA) • Non-Government Organisations (NGOs) Wales • Natural Resources Wales (NRW) • Local Authorities (LA) • Non-Government Organisations (NGOs)

1.	Processes and Records
1.1	The Waste Hierarchy is to be considered, documented, and justified throughout the design stage of work (i.e. Avoid, Reduce, Reuse, Recycle, Recover, Dispose – Waste (England and Wales) Regulations 2011).
1.2	For all projects the overriding principle is to be to design out waste. Where waste cannot be fully eliminated the remainder of this OES is to be followed.
1.3	All waste streams are to be identified and classified during the pre-construction / design stage of works. Segregation should be considered where economically feasible and space allows. (Finalised at QES 2).
1.4	Identified waste is to be detailed in the QES Workbook with target values and destinations transferred to the SWMP section of the CMP.
1.5	Treatment (T), Use (U), Storage (S) or Disposal (D) Permits and Exemptions are to be identified and obtained prior to site mobilisation. Magic DEFRA checks are to be completed prior to Permit / Exemption application to pre-screen the site's suitability, i.e. outside of National Park, SSSI etc.
1.6	The target quantities are to be determined prior to construction following consultation with the Client or their representative.

1.7	Waste arisings / streams are to be identified and controlled via the environmental risk assessment section of the RAMS and in the CMP.
1.8	A Site Waste Management Plan (SWMP) is to be developed on a project-by-project basis and implemented in order to; (a) control and manage materials on site; and (b) consider waste at all stages of a project i.e. from design through to completion. The SWMP is to be reviewed at least monthly by the Site Manager or responsible delegate.
1.9	All waste services are to be procured via the Company's Procurement Department.
1.10	Where a sub-contractor is responsible for the waste services all the standards listed in this standard must be adhered to and all records available on request.
1.11	The Procurement Department is to verify the waste carrier and facility licences to ensure they are suitable to handle or receive the material. This check is to also extend to any recent prosecutions and prohibitions. Site is to ensure that licence expiry dates are monitored on the SWMP, to ensure that waste suppliers are licenced when carrying out works.
1.12	A Waste Transfer Note (WTN) is to be completed in triplicate (top copy – site, middle copy – initial destination, bottom copy – final destination) for all inert and non-hazardous waste uplifts leaving site. Season Tickets can also be used in certain circumstances please refer to the Waste Guidance Document or consult the QES team.
1.13	The WTN is to be completed according to BMS Form 02-29.1 Waste Management Checklist or as stated within internal waste management guidance.
1.14	Where a waste management contractor is unable to supply a suitable and legally compliant WTN, the JNB Company WTN is to be completed.
1.15	A Hazardous Waste Consignment Note (HWCN) is to be completed in triplicate for all hazardous waste uplifts leaving site (e.g. oil waste, aerosols, grease cartridges, clinical waste, etc).
1.16	The HWCN is to be completed according to the BMS Form 02-29.1 Waste Management Checklist or as stated within internal waste management guidance.
1.17	Where a waste management contractor is unable to supply a suitable and legally compliant HWCN, the Company HWCN is to be completed.
1.18	England – the Premises Code JNBENT is to be displayed. Wales – a Premises Code is to be requisitioned via Procurement Department whenever works are undertaken on a premise where >500kg of hazardous waste will be generated annually or could reasonably be foreseen, (e.g. fuel, oil or chemical spillage, contaminated ground, asbestos containing materials, etc.). If <500kg then EXMPT or JNBENT can be used. In both cases the last five characters of the premises code is to be created by the supplier or the site to provide unique reference number.
1.19	Waste originating from contaminated land is to be subject to independent targeted analysis and testing, which may include heavy metals, hydrocarbons, asbestos and other substances hazardous to health or the environment. Testing is to be co-ordinated by the Procurement department following consultation with QES.
1.20	Analysis and test results (e.g. Waste Classification assessment (WCA) or Waste Acceptance Criteria (WAC)) are to be reviewed by an appropriately experienced and competent person or ground remediation consultant / contractor. These may be required at the disposal point.
1.21	CoSHH assessments are to be completed in line with OSS113 when handling, storing or transferring hazardous waste materials on and off site, taking into account environmental and health implications.
1.22	Where archive durations are not stated by the Client, WTNs are to be maintained for a period of at least 2 years and HWCNs for a period of at least 3 years.

2.	Conditions
2.1	Duty of Care paperwork (WTNs / HWCNs) is to be maintained on site, in the Site Environmental File and be readily retrievable. Due diligence checks of waste carriers/disposal points should be available on site i.e. EA Public Register check on licence details and records of spot checks on waste carriers by contacting the waste destination facility for confirmation of expected waste received.
2.2	All skips/waste containers including stockpiles are to have clear signage relating to the stream of waste which they will contain, where segregation is possible (economics and space) then signage should reflect their intended contents. The minimum information to be displayed is the Waste Description e.g. mixed general, metal, wood and relevant EWC Code(s) and SIC code.
2.3	Skips and containers are to be suitable for the materials being stored and transported in accordance with the manufacturer's guidelines. Skips containing light or loose materials are to either be covered or netted to prevent wind whipping. All leachable wastes (e.g. oil contaminated materials) must be stored in the appropriate UN approved sealed container (e.g. 'hazibag'), ensuring they cannot become a source of contamination. Contaminated soil is to be stored on an impermeable surface/sheet and covered to prevent leaching of contaminants to the wider environment. Hazibags must be used for Hazardous Waste arisings, the waste must be separated and stored according to single waste streams as per contractual agreement. Hazardous waste arising must not be mixed with any non-hazardous waste arising. Doing so will contaminate non-hazardous waste increasing waste volumes.
2.4	Prior to uplift of waste, a visual check must be undertaken to verify the condition of the skip's lifting points and to overloading of skips.
2.5	Storage Areas for skips and bulk materials are to be level, away from tree canopies, flood prone land, open watercourses, drains and gullies, and other sensitive ecological risks / receptors.
2.6	Where applicable, hazardous / leachable waste stored in non-UN approved containers is to be subject to secondary containment prior to disposal.
3.	Behaviours
3.1	No person is to import waste either from home or another site for disposal in company provided skips.
3.2	All persons on site are to ensure that wastes are placed in the correct skip/waste container/stockpile in line with the signage displayed.
3.3	To maximise efficiency, skips are to be filled to reduce void space.
3.4	All persons are to fill up skips in accordance with supplier's instructions so as not to cause road traffic incidents, i.e. use of 'greedy-boards' are not permitted.
3.5	Offload and uplift of waste skip/container/stockpile is to be supervised and take place in a designated area (as per 2.5).
3.6	Waste is to not be burned or fly-tipped on or off site.
3.7	Waste with an asset value (e.g. scrap metal, soils etc.), is not to be sold or offered for sale without the express permission of the Accounts / Procurement Departments.
3.8	All waste related breaches are to be documented and reported using the company environmental incident report form, with investigation and closeout undertaking in line with OSS003.

Operational Environmental Standard 003
Pollution Prevention

0	General
0.1	Any deviations from this Standard must be requested using the company standard Permit to Deviate form on Xpedeon which must be assigned to an Operations Manager or Director for authorisation. Authorisation must be obtained prior to the activity or process commencing.
0.2	Definitions: 1. Competent Person - Environmental Coordinator/QES advisor or equivalent who has the necessary training, knowledge, experience, ability and, where applicable, holds relevant permissions and/or licenses 2. Designated/Sensitive Sites - These are designated on a Local, National or European scale, examples of these include but not limited to, Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) or Special Area of Conservation (SAC), Ramsar. 3. Mitigation - Measures taken to prevent or lessen the adverse impact of planned activities on the environment e.g. secondary containment. 4. Pathway - The route by which a pollutant can migrate to an identified receptor and cause harm. 5. Pollution - The release of any substance that can harm people or animals, plants, soil, water, air or amenity; for example, an oil spill, silty water getting into a river or airborne dust. 6. Receptors - The wider environment which could be affected (including human health & amenity) by pollution. 7. Source - A pollutant which is located on site and has the potential to cause a pollution event. This is the first step in the 'Source-Pathway- Rec
0.3	Introduction: This OES provides a framework to prevent pollution and where necessary mitigate its effects. There are several hundred pollution incidents from construction and demolition sites every year that damage the environment, yet most can easily be prevented. Managing activities properly on site will protect the environment, wildlife, human health and amenity. Pollution can impact on; 1. Water environment – pollution of water bodies including surface water and groundwater, can kill fish and affect other users such as farmers, industry and drinking water abstractions. 2. Land and soil – pollutants can harm land and soil which support a wide variety of plants, animals and impact on human health. Effects can be immediate or develop over time. Contamination of soil can also lead to pollution of groundwater and the wider environment. 3. Air quality - emissions to the air can affect people's health, be a nuisance to site neighbours (odour and dust), cause damage to property and have an impact on ecology. 4. People – litter, noise, light and vibration from construction sites can create nuisance affecting people's quality of life. Causing pollution is a criminal offence and can result in prosecution, fines, formal warnings and/or a custodial sentence. In addition, there will be clean up and restoration costs, under the 'Polluter pays' principle. Pollution will also lead to damaging the Company's reputation.

0.4	Reference Documents: 1. BMS 02-03 Reputation Management 2. BMS 02-06 Management and Control of Design 3. BMS 02-10 Procurement; 4. BMS 02-13 Management of Temporary Works 5. OSS 003 – Event Reporting and Review 6. OSS 113 – Managing and Using Hazardous Substances. 7. OES 002 – Waste Management
0.5	Primary Regulators: England 1. Environment Agency (EA) 2. Natural England (NE) 3. Marine Management Organisation (MMO) 4. Local Authorities (LA) 5. Non-Government Organisations (NGOs) Wales 6. Natural Resources Wales (NRW) 7. Non-Government Organisations (NGOs) 8. Local Authorities (LA) Scotland 1. Scottish Environmental Protection Agency (SEPA) 2. Non-Government Organisations (NGOs) 3. Local Authorities (LA)

1.	Processes and Records
Before Construction Starts	
1.1	Pre-start contract documentation should be developed (e.g. QES Workbook, CMP, Environmental Action Plan (EAP)) to identify potential pollution sources, pathways and receptors. Prior to construction the team will take into consideration the potential pollution impact of the project and will design to avoid/limit this where practicable.
1.2	A competent person is to identify if any permits or consents relating to pollution prevention are required e.g. Flood Risk Activity Permit (FRAP), Ordinary Watercourse Consent (OWC) Discharge Permits/ relevant Regulatory Position Statement, also s61 Noise Prior Consent, etc. The application should detail how the site will be managed to minimise impact. The consent/permit may have conditions attached which must be adhered to and planned into the programme.
1.3	Site drainage plans are to be obtained/developed that identify routes to drains/water courses and any downstream risks. Plans should be made available to site teams in order to set up site correctly e.g. fuel storage.
1.4	Site set up and design of temporary works planning is to include flood risk, pollution prevention measures (including surface water protection), the location of COSHH stores, refuelling areas, concrete wash-down areas and stockpiles, and the proximity to site neighbours. All should be detailed on a site plan/drainage plan.
1.5	If working in an operational water or wastewater treatment site, the site supervisor must consider the impact our work may have on the existing processes and plan accordingly so that the risks of causing a pollution event by disruption of treatment systems are controlled and understood by the client and JNB.
1.6	Any areas of contaminated land are to be identified, and mitigation measures established.
During Construction	

1.7	Environmentally sensitive areas and receptors identified in pre-start documentation e.g. QES reviews are to be recorded in the CMP or EAP. These are to be reviewed monthly to ensure any licence conditions and site rules are being adhered to.
1.8	Any activities that have the potential to cause pollution (to land, water air or amenity) are to be covered by a Risk Assessment and, where applicable, a Method Statement. The RAMS is to clearly identify pollution control measures suited to remove or minimise potential impact.
1.9	An emergency Pollution Incident Response Plan (PIRP) should be developed. The plan should be based on STOP: ISOLATE: CONTAIN: ABSORB AND DISPOSE: RESTOCK AND REPORT 1. Stop and call for help – ensure area is safe, stop the works and call for site management. 2. Isolate – how to stop the spill in the first place, switch off plant, pumps etc. 3. Contain – how to contain the pollution at source and prevent further spread, e.g. booms, socks. 4. Absorb and Dispose – how to deal with pollution clean-up and disposing of the waste in accordance with waste regulations. 5. Restock and Report – restock and reseal used spill kits and report as an environmental incident. The plan is to be displayed on site so that all operatives and visitors can access it. An additional copy should be kept in the Site Environment File.
1.10	A site specific 'spill drill' based on the PIRP is to be undertaken within the first 2 weeks of site set up and every 6 months thereafter (unless frequency specified by the client). A record of attendance is to be kept in the Site Environmental File.
1.11	Weekly inspections of pollution prevention measures, are to be undertaken in accordance with BMS 02-13 Management of Temporary Works, to ensure that they remain effective e.g. silt protection fencing, hoarding boards to minimise noise, fuel tanks.
1.12	No person is to remove or alter pollution prevention control measures, e.g. silt fencing, spill kits, unless authorised by the appropriate competent person.
1.13	Licences/consents and other relevant information are to be readily available on site, stored in the Site Environmental File and regularly referred to when planning tasks.
1.14	Toolbox Talks are to be delivered that are relevant to pollution prevention on site. Records of attendance are to be maintained in the Site Environmental File.
1.15	Pollution risks are to be discussed at site induction and must include reference to the conditions of any licences/permits in place. Any changes/updates are to be discussed at morning briefings.
1.16	Plant and equipment checks/inspections are to be carried out in accordance with OSS106.
2.	Conditions and Behaviours
2.1	<u>Oil use, storage & refuelling</u> Oils or fuels stored on site must meet the following conditions: 1. Oils or fuels must not be stored within 10 metres of a watercourse, ditch or drainage channel, open drain or loose-fitting manhole covers. 2. Oils or fuels must not be stored within 50 metres of a spring, well or borehole. 3. Oils or fuels must not be stored in areas at risk from flooding. 4. Oils or fuels must not be stored where there is risk of damage by impact or collision e.g. from site traffic. 5. All fuel storage (over 200lt) must be within secondary containment with an available capacity equivalent to a minimum of 110% of the total stored. Note; JNB standard fuel tanks meet this requirement. 6. Fuel tanks / Bowsers to be locked when not in use.

	7. Dispensing should be conducted in a controlled manner i.e. over drip tray/secondary containment. 8. Portable oil/fuel powered plant (e.g. Generators, powerpacks, cut off saws etc) must be stored on secondary containment when not in use e.g. spill pad, if out on site. 9. All bulk fuel deliveries to site are to be supervised at all times and spill kit/drainage protection be made available. 10. Regular inspections of all bulk fuel storage (including, any damage, corrosion, fuel levels, associated pipework) are to be undertaken with records kept. 11. Rainwater is to be prevented from entering secondary containment, as this may become a hazardous waste in its own right. 12. Basic emergency information should be displayed within the vicinity of the bulk fuel storage, e.g. spill response details, emergency contact details etc. Spill kits must be suitable for the volumes of fuels being used/stored on site. Regular checks of spill kits should be undertaken to ensure they are appropriate in the event of an emergency.
2.2	<u>Chemicals and Hazardous Substances</u> All relevant conditions set out in 2.1 – Oil use, storage and refuelling must be met regarding chemical and hazardous materials storage. Including these conditions: 1. Chemicals (including cabin cleaning products) should be a) stored on secondary containment, e.g. drip trays or absorbent drip mats and b) kept locked e.g. flammbanks or storage cabins to contain any spillage. Refer to OSS 113 Managing and Using Hazardous Substances. 2. Inspect chemical storage regularly to ensure it is free from damage, no leaks etc. 3. Dispose of any damaged / old containers in line with our duty of care waste requirements, these may be considered hazardous waste. 4. Ensure that spill kits appropriate to the chemicals being stored on site are available close to the chemical storage area (as required). Regular checks of spill kits should be undertaken to ensure they are in a useable condition in the event of an emergency. 5. Ensure that COSHH sheets are available for all hazardous substances stored on site.
2.3	<u>Drainage</u> 1. Drainage plans should be made available to all site staff and high-risk drainage (surface water) be identified both on the plan and physically marked on site. 2. Drain covers are to be used and maintained where necessary and there is sufficient environmental risk.
2.4	<u>Groundwater / Surface water/ Rainwater</u> 1. Limit water getting into excavations to thereby limit the amount of silty water that will need to be managed – e.g. using cut-off trenches or sumps. 2. Identify if permission will be needed from the regulator to discharge water from excavations into surface water: Can all conditions of the EA/NRW Regulatory Position Statement Temporary dewatering from excavations to surface water be met? 3. Do not pump silty water from an excavation directly to surface water. Pumping should always be via a mitigation measure e.g. settlement tanks, lagoons, silt fencing, silt bags etc. When pumping water from excavations to ground, only pump to well vegetated areas that will prevent water from flowing overland and potentially allowing silt into surface water. 4. Clean, uncontaminated water can be pumped directly to the surface waters. i.e. building rainwater, diverted culverts (with correct permissions).
2.5	<u>Contaminated Land</u> • Locations of any contaminated land are to be identified on site, demarcated and signed. Mitigation measures are to be in place to prevent secondary source pollution e.g. damage to leachate containment.

2.6	Material Storage and Stockpiles 1. Stockpiles are to be located well away from watercourses, ditches and drains, with stable slopes to prevent slippage, checked as part of temporary works 2. Utilise silt mitigation measures to prevent silt contaminated runoff entering the water course, e.g. seeding with plants/grass can stabilise ground, silt fencing to prevent run off 3. Stockpile contaminated material is to be placed on an impermeable surface, in a bunded area, at least 10 metres from a watercourse and cover them to prevent contaminated runoff.
2.7	Nuisance 1. Where reasonably practicable, use machinery or plant with noise control measures e.g. silencers, mufflers, acoustic covers. 2. Ensure that the potential to cause nuisance through exhaust emissions is minimised by maintaining plant and positioning fixed plant away from site boundaries and powering down when not in use. 3. Mobile plant use is to be minimised at site boundaries so far as is reasonably practicable. 4. Damp down potential sources of dust during dry weather.
2.8	Cement, concrete and grout 1. Concrete and cement mixing operations must be sited at least 10 metres away from any watercourse or unprotected surface water drain. 2. Equipment, such as chutes should be washed down in a designated area that has been specifically designed to contain wet concrete/wash water. 3. Where available, concrete mixing and delivery lorries should return to the batching plant for washout. 4. Wash Waters from concrete and cement works must not be discharged into the water environment or to ground.
2.9	Waste Management 1. Store all waste safely and securely on site to avoid wind dispersal. Consider the use of covered skips and bins. 2. Prevent any liquid wastes leaching from bins or skips; check your waste storage has no holes or damage. 3. All potentially hazardous leachable wastes (e.g. oil contaminated materials) must be stored in the appropriate UN approved sealed container (e.g. Hazibags, 'blue bin', bulk bag etc), or, where applicable in non-UN approved containers within a secondary container.
2.10	Reporting 1. Report any stakeholder communications (e.g. Regulator and public), to the site manager. 2. In the event of a condition or behaviour being observed that could result in a pollution event, either to land, air or water, then the task should be stopped, and the situation should be made right immediately. 3. Any failure or damage of a pollution prevention control measure must be reported immediately to the site manager. 4. Report all pollution related events (positive interventions and harm) and cooperate with reviews as required.

Operational Environmental Standard 004
Invasive Species Mitigation

0.	General
0.1	Any deviations from this Standard must be requested using the company standard Permit to Deviate form on Xpedeon which must be assigned to an Operations Manager or Director for authorisation. Authorisation must be obtained prior to the activity or process commencing.
0.2	Definitions: Invasive Non-Native Species (INNS) – Animals and plants that have been introduced to a place where they do not naturally occur and adversely affect the balance of an ecosystem are known as Invasive Non-native Species. E.g. Giant Hogweed and Signal Crayfish. Injurious Weeds – Weeds that have the potential to cause health hazards if ingested e.g. ragwort and dock and others contained on the withdrawn Weeds Act 1959. Biosecurity – Diseases, parasites and INNS can cause serious harm to the environment and our economy. Good management of these and ensuring we prevent the spread of these lowers this risk. Mitigation – To prevent or lessen the adverse impact of planned activities. Competent Person – An Environmental Coordinator/QES advisor or Ecologist who has the necessary training, knowledge, experience, ability and, where applicable, holds relevant permissions and/or licenses.
0.3	Introduction: The identification of INNS should be undertaken as early as possible in the life of a project to avoid legal implications, potential loss of reputation and public/client confidence. Spreading INNS is a criminal offence and can result in prosecution and the imposition of fines and/or a custodial sentence. Project activities such as site surveys, demolition, site clearance and dewatering can potentially spread INNS via: 1. Direct spreading of invasive plants and animals 2. Movement of soils containing seeds of INNS 3. Contaminated machinery and PPE 4. Disturbance of INNS
0.4	Reference documents: 1. BMS 02-03 Reputation Management 2. BMS 02-06 Management and Control of Design 3. BMS 02-13 Management of Temporary Works 4. OES 002 Waste Management 5. OES 003 Pollution Prevention 6. JNB Ecology Handbook 7. Client Procedures

1.	Processes and Records
Before Work Starts	
1.1	The Site Manager, Temporary Works Designer and Co-ordinator will have attended JNB environmental awareness training and/or hold a recognised environmental qualification at a comparable level.

1.2	A competent person is to identify ecological constraints, enhancement opportunities and requirement for an ecological baseline survey e.g. a Preliminary Ecological Assessment (PEA)/Phase 1 Habitat Survey/Ecological Memorandum, and/or the need for further surveys. A record of the findings should be kept.
1.3	Pre-start contract documentation (e.g. QES Workbook, CMP, Environmental Action Plan (EAP) is to identify any INNS within the proximity to the working area or along access tracks.
1.4	If INNS are situated on the site, then an Invasive Species Management Plan should be developed. If works are not adversely affecting INNS, then inclusion within Risk Assessment and method statement may be suitable e.g. works outside 7m of Japanese Knotweed.
1.5	Temporary Works planning is to include INNS mitigation measures e.g. signage, netting, fencing etc.
During Construction	
1.6	Where applicable, all conditions set out within the INNS management plan are to be met.
1.7	Any activities that may adversely affect sensitive INNS are to be covered by a Risk Assessment and, where applicable, a Method Statement. The RAMS are to clearly identify control measures to mitigate INNS/ Biosecurity risks.
1.8	Site layout plans are to clearly identify the presence of INNS.
1.9	Weekly Inspections are to include checks on INNS/Biosecurity control measures to ensure that they remain effective e.g. signage, demarcation, fencing etc.
1.10	Toolbox Talks are to be relevant to INNS/Biosecurity risks on site. Records of attendance are to be maintained in the Site Environmental File.
2.	Conditions
2.1	Inductions are to include dissemination of any INNS/Biosecurity risks on site. Any changes/updates are to be discussed at morning briefings.
2.2	Ensure the location of all INNS are demarcated on site and signage is in place.
2.3	Any waste material containing INNS is to be disposed of to a suitably licenced facility as a notifiable waste i.e. the INNS type must be included within the waste description.
2.4	Any imported material to site should be checked prior to import to ensure it does not contain INNS or injurious weeds. Evidence of checks should be recorded in the site file.
2.5	If treatment is to be carried out on INNS, this must be completed by a competent and suitable licensed person. Note; treatment may be restricted on clean water sites or adjacent to controlled waters.
3.	Behaviours
3.1	In the event of an unexpected INNS find, site operatives are to stop work and report to the Site Manager.
3.2	No person is to remove or tamper with INNS/biosecurity control measures.
3.3	If works are to be undertaken within INNS areas, employ a Check Clean Dry procedure to reduce biosecurity risk. Check equipment and clothing for any living organisms, Clean and wash (with hot water where possible) equipment, footwear and clothing thoroughly (if you find any organisms, leave them where you found them), Dry all equipment and clothing, many species can live for many days in moist conditions.

3.4	No person is to work within any INNS exclusion zones without clear instruction issued by a competent person.
3.5	Consideration is to be given to informing landowners of INNS observed on their land.
3.6	Any failure of INNS control measures is to be reported to site manager immediately e.g. fencing, biosecurity measures.
3.7	Some INNS are dangerous to human health, avoid contact with INNS e.g. Giant Hogweed. If contact made, then report and seek medical attention.
3.8	Do not intentionally spread INNS.

E. Pollution Incident Response Plan

Pollution Prevention Response Plan

Project Name:	DC24M800A – Cefn Drysgoed WTW
Date of issue:	12/02/2026
Prepared by:	James Marshallsea
Approved by:	Jason Eddies
Incident drill frequency:	3 Months

Service	**Contact Details**
Emergency Services (Fire/Police/Ambulance)	999
Environmental Regulator Incident Hotline	NRW - 0300 065 3000
Environmental Regulator Local Contact	TBC
Local Authority Emergency Planning Department	Powys County Council - 01597 827161 Bannau Brycheiniog National Park Authority - 01874 624437
Flood line	0845 988 1188
Local Water Company/Authority	DCWW – 0800 052 0130
Electricity Company applicable to services onsite	National Grid - 0800 096 3080
Gas Company applicable to services onsite	Wales and West Utilities - 0800 111 999
Waste Management Contractor	TBC
Specialist Advice	TBC
Specialist Clean Up Contractor (Adler and Allan)	0800 592827
Personnel authorised/trained to activate and co-ordinate the plan	Site Manager / General Foreman

Pollution Prevention Response Plan

Chemical, Product and Waste Inventory						
Trade Name Substance	**Solid/liquid/ gas or powder**	**UN Number**	**Maximum amount (approx.)**	**Location marked on site plan**	**Type of containment**	**Health and environmental properties**
Petrol	Liquid	1203	1200ltr	Compound	COSHH Box	H224, H304, H315, H336, H340, H350.
Diesel	Liquid	1202	85,000ltr	Compound	Fuel Bowser	H226, H304, H315, H332, H351, H373, H411.
Bio-degradable hydraulic oil	Liquid	Not applicable	500ltr	Compound	COSHH Box	No significant hazard
HVO	Liquid	1202	0	Compound	Bowser	H304
AdBlue	Liquid	Not applicable	1500ltr	Compound	Bowser	No significant hazard
Bleach	Liquid	1791	50ltr	Compound	COSHH Box	H290, H314, H400, H411
Disinfectant	Liquid	Not applicable	50ltr	Compound	COSHH Box	H318, H315
WD40	Liquid	1950	5ltr	Compound	COSHH Box	H304, H336, H222, H229
Spray Paint	Liquid	1950	5ltr	Compound	COSHH Box	H222, H229, H319, H336, H412
Cement	Solid	Not applicable	500kg	Compound	Stores	H318, H315, H317, H335

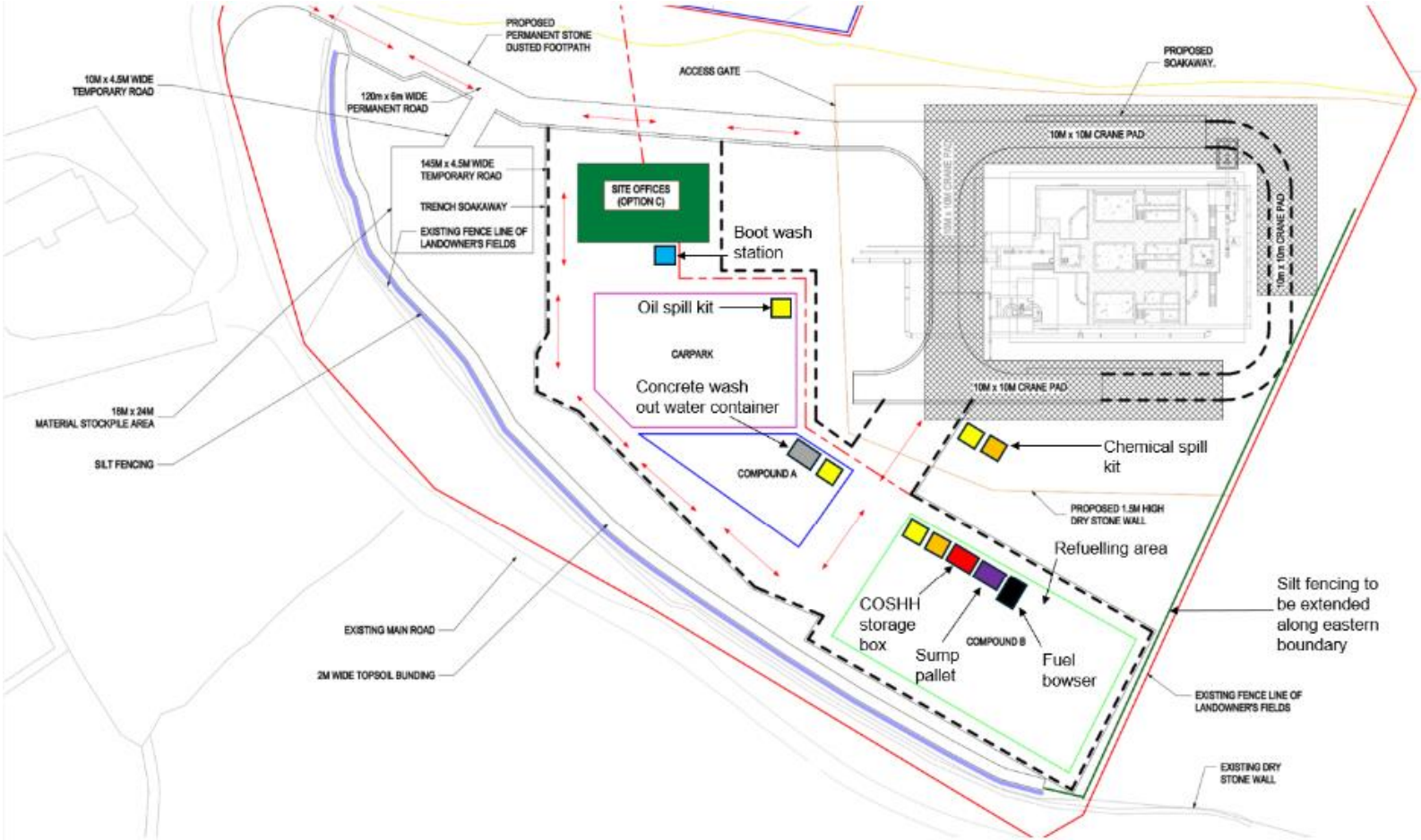
Pollution Prevention/spill response Equipment Inventory (on and off-site resources)				
Type	**Location**	**Amount**	**Person responsible for**	**Monitoring frequency**

Pollution Prevention Response Plan

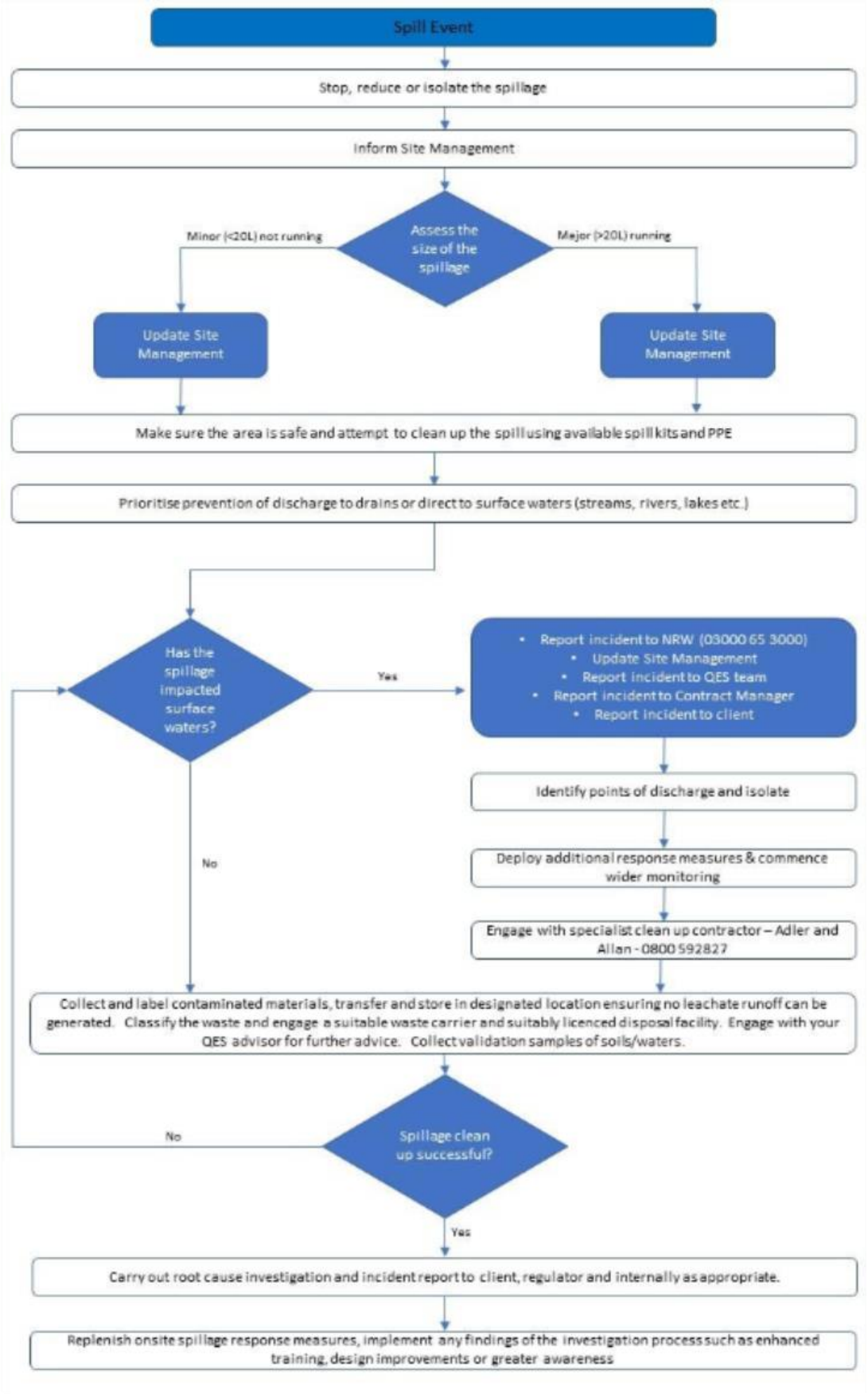
Pollution Prevention/spill response Equipment Inventory (on and off-site resources)				
			checking stock condition	
Silt fencing	Southern and eastern site boundary downgradient of work areas / external face of topsoil bund.	200m (Approx.)	General Foreman	Daily
Spill kit (Oil)	Car park. Compound refuelling area. Compound plant parking area. Site	4	General Foreman	Daily
Spill kit (Chemical)	Next to COSHH stores. Site	2	General Foreman	Daily
Plant nappies	Compound storage container in compound storage area (when nappies) not used.	5	General Foreman	Daily
CoSHH storage box	Compound storage area.	1	General Foreman	Daily
Fuel Bowser (Bunded)	Compound storage area.	TBC	General Foreman	Daily
Sump pallet (Covered)	Compound storage area.	1	General Foreman	Daily
Boot Wash	Offices.	1	General Foreman	Daily

Pollution Prevention Response Plan

Site Plan



Response Methodology Flow Diagram



Mitigation & Uncontrolled Release Response Methodology	
Noise	**Mitigation:** • Temporary noise barriers that provide a minimum of 40dB noise reduction if necessary. • All works should be undertaken during daylight hours. • Plant and equipment to be turned off when not in use. • Use battery powered equipment where practicable. • Minimise material drop heights.
Light	**Mitigation:** • All works should be undertaken during daylight hours. Should artificial lighting be required to undertake the works, an ecologist should be consulted on the placement and use before installing it on-site. • Lighting to be directed downwards ad away from environmental receptors. • Turn off lights when not needed.
Silt run off from work areas.	**Mitigation:** • Install silt fencing down gradient of work areas / stockpiles. • Seal long term stockpiles. • Locate stockpiles away from roadway, drainage and sensitive ecological receptors. • Do not locate stockpiles in hedge or tree root protection areas. • Silt/soil to be removed from vehicles, plant, equipment and worker clothing before leaving site. Silt/soil to be returned to its source area. • Boot wash / vehicle wash, to be self-contained and regularly emptied to prevent overtopping. **In the event of a runoff:** • Employ road sweepers as required to remove excessive silt from roadways. • Silt to be removed from areas outside of the work area. • Silt to be removed from drainage systems by vacuum tanker.
Spillage of fuel and chemical	**Mitigations:** • Store all fuels and COSHH away from site drainage (at least 10m), sensitive ecological receptors and outside of hedge or tree root protection areas. • Bulk storage bowsers to be integrally bunded. • Bulk deliveries to be supervised by JNB staff. • Dispense from a bulk storage container via a delivery system with dispensing hose and nozzle with automatic shut off function. • Plant nappies will be used during refuelling activities. • Refuelling activities to be undertaken at least 10m from drainage / watercourses. • Ensure that the site, bulk storage and COSHH storage are secure and always locked when not in use. • Storage areas are to be protected from vehicle impact. • All chemicals to be stored in COSHH storage. • Spill response equipment to be kept in high-risk areas for rapid deployment. • Position portable chemical filled equipment on/within secondary containment when not in use. • Boot wash / vehicle wash, if used, to be self-contained and regularly emptied to prevent overtopping

	In the event of a spillage: • Stop work immediately, eliminate any sources of ignition and prevent any more material being split. • Contain the spill using spill response equipment. • Contact specialist spill contractors to contain / remove contamination if required. • Report the incident (consultation with a member of the QES team will be required if the incident is Cat 1-3). DCWW / NRW to be advised in the event of a significant incident. • Dispose of soiled sorbents / contaminated ground in Hazibag. • Replace any spill response material / equipment used.
Spillage of concrete / concrete washout water	**Mitigations:** • Store cementitious products at least 10 metres away from sitedrainage, surface waters, sensitive ecological receptors and outside of hedge or tree root protection areas. • Cementitious mixing and washout operations must be located at least 10 metres away from site drainage surface waters, sensitive ecological receptors and outside of hedge or tree root protection. • Locate cementitious products/stores and mixing/washout operations way from areas at risk from damage by impact or collision from vehicles. • Return to storage any cementitious products that have not been used at the end of the day and do not leave unprotected cementitious products that can be damaged by weather (e.g. cement bags). • Do not store more than 30m^3 of cementitious washout water onsite. • Securely store cementitious washout water. **Cementitious Washout Water** • Where applicable, concrete mixing and delivery lorries should return to the batching plant for washout. • Cementitious washout water must be contained in an impermeable unit (e.g. leakproof skips, washout system etc.). • Treated (silt removed and pH neutralised) cementitious washout water must only be used for washing down cementitious related equipment. • Treated (silt removed and pH neutralised) and untreated cementitious washout water can be used to produce new cementitious products. • Treated (silt removed and pH neutralised) and untreated cementitious washout water must not be used for dust suppression or discharged into the water environment or to ground. • Cementitious washout water must only be discharged to the foul sewer, surface water or to ground with consent or environmental permit from the relevant authority, respectively. If washout water cannot be disposed of onsite then it must be transported off-site for treatment and disposal. **In the event of a spillage:** • Stop work immediately, prevent any more material being split. • Contain the spill using spill response equipment. • Contact specialist spill contractors to remove contamination if required. • Report the incident (consultation with a member of the QES team will be required if the incident is Cat 1-3). DCWW / NRW to be advised in the event of a significant incident. • Dispose of soiled sorbents. • Replace any spill response material / equipment used.