

Unique ES Ref	Topic	Action/Commitment/mitigation (Including Monitoring Requirements)	Objective	Source Reference	Organisation / Individual Delivering Measure	Achievement Criteria and Reporting Requirements	Project Stage (Design, Pre-Construction, Construction, Post-Construction, Operation, Monitoring)	Evidence / Record of Completion (Signature and Date)
PW-GN-001	General	The Construction Contractor(s) will set up and maintain a register with details of consents, permits and licences required for the Padeswood Spur Pipeline Proposed Development.	To keep an up to date record of all past and current consents, permits and licences to ensure the Padeswood Spur Pipeline Proposed Development is remaining compliant with the appropriate legislative measures.	OEMP (Document Reference: PW.4.1)	Construction Contractor	CEMP approved by the Local Authority	Pre Construction / Construction	
PW-GN-002	General	The Construction Contractor(s) will prepare and implement appropriate measures to control the risk of pollution due to construction activities, materials and extreme weather events.	To avoid or otherwise minimise the risk of environmental effects due to unexpected pollution incidents	OEMP (Document Reference: PW.4.1)	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-GN-003	General	The Construction Contractor(s) will be required to investigate and provide a report to The Applicant in the event a pollution incident does occur, including the following: - A description of the pollution incident, including its location, the type and quantity of contaminant and the likely receptor(s); - Contributory causes; - Adverse effects and the measures implemented to mitigate adverse effects; and - Recommendations to reduce the risk of reoccurrence. The Construction Contractor(s) will consult with the relevant organisations, statutory bodies and other relevant parties when preparing response measures. The Construction Contractor should also ensure that environmental incidents are reported to Natural Resources Wales' incident hotline at the earliest opportunity.	To provide the opportunity for relevant organisation and stakeholders to input or comment on response measures	OEMP (Document Reference: PW.4.1)	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-GN-004	General	The Applicant will require the Construction Contractor(s) to monitor and manage works for which they are responsible	To demonstrate an appropriate level of awareness of site sensitivities (including environmental features), codes of practice, relevant legislation and guidance appropriate to the construction activities in which they are employed.	OEMP (Document Reference: PW.4.1)	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-GN-005	General	The Detailed CEMP will set out as a minimum: - Description of the relevant phase(s) of the Padeswood Spur Pipeline Proposed Development, and clear figures identifying receptors that could be affected by construction activities; - An outline of the pre-construction and construction works; - An organogram showing names, roles, responsibilities and communication methods; - Protocol for external reporting and community relations; - Staff competence and requirements for training personnel, identifying mechanisms on how these are achieved and maintained; - Information on inductions (including environmental), site briefings and toolbox talks to ensure staff are briefed on environmental matters and procedures specific to their location; - A protocol to manage change as work progresses (e.g. updating evidence of compliance with the REAC, and detailed CEMP and having an audit trail of changes in line with the Construction Contractor(s) EMS), including procedures for updating, sign off and version control of environmental asset data and as built drawing requirements; and - Emergency response, preparedness and non-conformance processes.	To ensure that the Detailed CEMP is compliant, robust and fit for purpose	OEMP (Document Reference: PW.4.1)	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-GN-006	General	The Applicant will require the Construction Contractor(s) to have an EMS certified to BS EN ISO 14001.	To ensure that the Construction Contractor has a certified environmental management system	OEMP (Document Reference: PW.4.1)	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-GN-007	General	Environmental incidents (including observations and near misses) and Site inspections will be recorded, documenting any corrective actions.	To keep an up to date record of all works being carried out, best practice examples and improvement requirements for the Construction Contractor to action.	OEMP (Document Reference: PW.4.1)	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-GN-008	General	The CEMP will set out construction mitigation and management measures outlined in the ES and REAC during the construction stage. These measures will illustrate how the monitoring strategy will be undertaken and who is responsible for each of the measures listed.	To ensure mitigation and management measures are followed correctly during the construction stage of works.	OEMP (Document Reference: PW.4.1)	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-GN-009	General	The Construction Contractor will ensure that the application of circular economy Principals will be followed, as implemented in the detailed CEMP, including: •Designing solutions to prevent the generation of waste where feasible, and to send waste for recovery, wherever possible. •Considering all stages of construction, operation and decommissioning in a lifecycle approach. •Identification of resource streams that might be considered by-products (i.e. not wastes, as per applicable legislation) and reused or recycled.	Effective design for the future.	OEMP (Document Reference: PW.4.1)	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-GN-010	General	Any waste materials generated during the construction of the Padeswood Spur Pipeline Proposed Development will be disposed of satisfactorily and in accordance with Section 34 of the Environment Act 2021 (HM Government, 2021) and NRW relevant guidance on waste management. A Site Waste Management Plan for reducing, storing, handling, transporting and disposing of waste will be followed during construction. The Construction Contractor will be responsible for obtaining all required environmental permits, licences and consents from the relevant authorities where required. The Waste Hierarchy shall be adopted.	To identify opportunities to further reduce any waste. To reduce associated impacts such as potential harm to the environment. To monitor waste generation and disposal methods.	OEMP (Document Reference: PW.4.1)	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-GN-011	General	Waste storage areas will be incorporated into the Detailed Design. Waste segregation measures will be put in place by the Construction Contractor as implemented in the detailed CEMP and Site Waste Management Plan.	To maximise the potential for highest value reuse and recycling.	OEMP (Document Reference: PW.4.1)	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-GN-012	General	Carriers transporting waste from the site will be registered waste carriers and the movement of any Hazardous Waste from the site must be accompanied by Hazardous Waste consignment notes.	Construction methods with the potential to reduce adverse material asset and waste impacts	OEMP (Document Reference: PW.4.1)	Construction Contractor	CEMP approved by the Local Authority	Construction	

PW-PD-001	Description of the Padeswood Spur Pipeline Proposed Development	For complex crossings, to avoid disruption to utilities, major highways, watercourses and/or particular environmental sensitivities (e.g. ancient woodland), specialist trenchless installation techniques will be used.	To reduce the impacts on environmental features	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design	
PW-PD-002	Description of the Padeswood Spur Pipeline Proposed Development	The height of additional permanent equipment to be installed at Northop Hall Above Ground Installation (AGI) will not exceed 5 m.	To reduce the impacts on landscape and visual amenity.	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design/Construction	
PW-PD-003	Description of the Padeswood Spur Pipeline Proposed Development	Cathodic Protection (CP) test posts, pipeline marker posts and aerial marker posts will be positioned to reduce disturbance as far as reasonably practicable. For example, locations within verges and field boundaries will be chosen.	To reduce the impacts on land use and visual amenity	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design/Construction	
PW-PD-004	Description of the Padeswood Spur Pipeline Proposed Development	Leak Detection equipment will be installed on the pipeline and within the AGIs. 24-hour remote monitoring of pipeline operation will be undertaken to detect leaks and enable remote shut down of the pipeline if required.	To reduce GHG emissions from leaks.	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	The Applicant / Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design/Construction/Operation	
PW-PD-005	Description of the Padeswood Spur Pipeline Proposed Development	The working width for open cut trenching installation will be kept as narrow as possible, to a maximum of 25 m where reasonably practicable.	To avoid or otherwise minimise potential environmental impacts	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Construction	
PW-PD-006	Description of the Padeswood Spur Pipeline Proposed Development	The Construction working width will be reinstated to allow previous use to resume where that will not impact on the operation and maintenance of the Padeswood Carbon Dioxide Spur Pipeline and subject to the restrictions imposed to protect the pipeline	To reduce the impact on land use	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-PD-007	Description of the Padeswood Spur Pipeline Proposed Development	In areas where trenched watercourse crossings are utilised, flows will be re-routed using a flume or pipe bypass. The water flow will be maintained through the bypass during construction. Care will be taken to ensure the watercourse is reinstated following completion of the works. The stream bed will be re-contoured to its original form, and the trench on both sides of the stream will be backfilled and reinstated	To reduce the impact on watercourses	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-PD-008	Description of the Padeswood Spur Pipeline Proposed Development	Material used for bedding and backfilling of the pipeline trench will consist of imported clean sand or, where suitable, graded subsoils excavated from the trench. All bedding and backfilling material will be screened prior to use and should not contain any sharp objects, foreign material or vegetation. Each layer will be thoroughly compacted by suitable compacting equipment to provide a good bond between the undisturbed sides of the trench and the new material.	To reduce the impacts on soils; Re-use of excess materials and limit permanent removal of soils during Construction Stage	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-PD-009	Description of the Padeswood Spur Pipeline Proposed Development	The Padeswood Spur Pipeline Proposed Development will operate without the need for any permanent on-site staff at the AGIs, which will generally be operated remotely.	To reduce travel requirements and reduce GHG emissions through unnecessary travel.	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	The Applicant	CEMP approved by the Local Authority	Operation	
PW-PD-010	Description of the Padeswood Spur Pipeline Proposed Development	Operating procedures will draw upon industry standard guidance to reduce fugitive emissions. This will include: <ul style="list-style-type: none">•Identification of the plant components (valves, vents, flanges etc.) that may cause fugitive emissions;•Periodic monitoring to check the status of the identified components by using leak detectors;•Implementation of a leak detection and repair programme to minimise fugitive emissions, for each component for which leakages have been identified; and•Reporting results of monitoring and repairing activities.	To reduce GHG emissions from fugitive emissions	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	The Applicant	CEMP approved by the Local Authority Approval of Detailed Design / construction in accordance with approved plans	Operation	
PW-PD-011	Description of the Padeswood Spur Pipeline Proposed Development	Padeswood AGI will not be permanently lit; lighting will only operate should there be a security or safety reason (e.g. Need for a maintenance visit during low light conditions). The perimeter lighting columns will be directed only into the facility area and will incorporate measures such as louvres and/or barn doors to reduce light spill on the occasions that the lighting is required. No permanent lighting will be installed along the rest of the pipeline length, or at Northop Hall AGI as part of the Padeswood Spur Pipeline Proposed Development.	To reduce disturbance to fauna and reduce landscape and visual impacts	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	The Applicant	CEMP approved by the Local Authority	Operation	
PW-PD-012	Description of the Padeswood Spur Pipeline Proposed Development	During normal operation, any emission of CO2 will be limited to planned maintenance activities. Provision for planned temporary venting of CO2 will be present at Padeswood AGI and Northop Hall AGI. Venting activities will involve PIG trap venting and manifold venting. Manifold venting will take place via the installation of an up to 10 m tall temporary vent stack at the AGIs. This will be removed once the temporary venting activity has been completed.	To allow for maintenance works to be completed safely and minimise GHG emissions	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	The Applicant	CEMP approved by the Local Authority	Operation	
PW-PD-013	Description of the Padeswood Spur Pipeline Proposed Development	The Construction Contractor will be committed to promoting the use of local workforce and suppliers, wherever practicable.	To support the local economy	Chapter 3: Description of the Padeswood Spur Pipeline Proposed Development (PW.3.2.3) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	

PW-CA-001	Consideration of Alternatives	The principles of inherent safe design will be incorporated into the design of the pipeline as per relevant industry codes of practice and standards and the requirements of the Pipeline Safety Regulations 1996.	To avoid potential effects on sensitive environmental receptors	Chapter 4: Consideration of Alternatives (PW.3.2.4) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority Approval of Detailed Design / construction in accordance with approved plans	Design	
PW-CA-002	Consideration of Alternatives	The location of the Centralised Compound has been selected to minimise adverse environmental effects, as far as reasonably practicable.	To avoid potential effects on sensitive environmental receptors	Chapter 4: Consideration of Alternatives (PW.3.2.4) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design	
PW-AQ-001	Air Quality	All dust and air quality complaints will be recorded and causes identified. Appropriate practical measures will be taken to reduce emissions in a timely manner, the measures taken will be recorded. Any recorded complaints and subsequent measures taken will be made available for the local authority if called upon.	To monitor potential air quality effects and identify further required mitigation measures.	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-002	Air Quality	Any exceptional incidents that cause dust and/or dust emissions (either on or off site) and any action taken to resolve the situation will be recorded.	Site Management	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-003	Air Quality	Daily on and off-site inspections (up to a minimum of 50 m from the site boundary) will be undertaken; at the frequency agreed within the Dust Management Plan; the frequency of these inspections will be increased when site activities being undertaken have a high potential to produce dust.	Monitoring of dust producing activities during construction.	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-004	Air Quality	A Dust Monitoring Plan will be agreed with the local authority, using either dust deposition, dust flux or real-time PM10 continuous monitoring at the Centralised Compound.	Monitoring of dust producing activities during construction.	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-005	Air Quality	The Dust Monitoring Plan will be implemented on site by the Construction Contractor. This will include measures to control other emissions, in addition to dust and PM10 mitigation measures.	To control and monitor dust deposition, dust flux, real-time PM10 and other emissions.	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-006	Air Quality	The site layout will be planned so that machinery and dust causing activities are located away from receptors, as far as reasonably practicable.	Where practicable avoiding or reducing likely air quality and dust effects on sensitive receptors	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Design/Operation	
PW-AQ-007	Air Quality	Where construction is undertaken near sensitive receptors, such as residential properties and designated ecological sites (including ancient woodland), solid screens or barriers will be erected around dusty activities or the site boundary that are at least as high as any stockpiles on site.	Where practicable avoiding or reducing likely air quality and dust effects on sensitive receptors	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-008	Air Quality	Earthworks and exposed areas or soil stockpiles will be managed to prevent wind-borne dust using measures such as covering, seeding or water suppression.	Where practicable avoiding or reducing likely air quality and dust effects on sensitive receptors	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-009	Air Quality	The Construction Contractor will ensure that all vehicle engines are switched off when not in use and ensure there is no idling.	Reduce emissions from vehicles and machinery during construction	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-010	Air Quality	Where reasonably practicable, more sustainable on-site energy generation will be investigated, rather than the use of diesel or petrol-powered generators.	Reduce emissions from vehicles and machinery during construction	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-011	Air Quality	A maximum speed limit of 15 mph on surfaced roads and 10mph on unsurfaced haul roads and work areas will be signposted and imposed.	Reduce emissions from vehicles and machinery during construction	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-012	Air Quality	The most practically sustainable form of transport for the delivery of goods and materials will be investigated and selected for use, so far as reasonably practical.	Reduce emissions from vehicles and machinery during construction	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-013	Air Quality	Cutting, grinding or sawing equipment will only be used if fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems	To reduce risk of dust blowing around Site and to protect workers from inhalation	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	

PW-AQ-014	Air Quality	The Construction Contractor will ensure there is an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	To reduce risk of dust blowing around Site and to protect workers from inhalation	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-015	Air Quality	Covered skips will be used to reduce the risk of materials or dusty materials blowing out and contaminating the surrounding site.	Reduce risk of materials becoming loose and potential contamination of Site.	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-016	Air Quality	Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.	To prevent further spread of spills and contamination to surrounding environment.	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-017	Air Quality	There will be no bonfires or burning of waste materials.	Waste Management practices and reducing hazardous fumes	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-018	Air Quality	Following excavation works, return subsoil and topsoil at the earliest suitable time of year after construction has been completed.	To prevent impacts from Earthwork activities.	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-019	Air Quality	Avoid scabbling (roughening of concrete surfaces) if possible.	Construction mitigation measures	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-020	Air Quality	For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.	Construction mitigation measures	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-021	Air Quality	All construction plant and equipment will be maintained in good working order.	To prevent impacts from Trackout	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-022	Air Quality	Use water-assisted dust sweepers on the access and local roads, to remove, as necessary, any material tracked out of the site. The use of road sweepers along roads affected during the Construction Stage (i.e. Construction Traffic Routes) will be agreed with Flintshire County Council and the North and Mid Wales Trunk Road Agency	To prevent impacts from Trackout	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-023	Air Quality	Avoid dry sweeping of large areas where possible.	To prevent impacts from Trackout	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-024	Air Quality	Ensure vehicles carrying materials are appropriately covered when entering and leaving sites to prevent escape of materials during transport.	To prevent impacts from Trackout	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-025	Air Quality	Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.	To prevent impacts from Trackout	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-026	Air Quality	Record all inspections of haul routes and any subsequent action in a site log book.	To prevent impacts from Trackout	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-027	Air Quality	Where works are undertaken in built-up areas, install haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowzers and regularly cleaned.	To prevent impacts from Trackout	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-028	Air Quality	Where trackout is likely to occur, such as access points to the local highway near sensitive receptors, temporary hard surfacing will be prepared. Upon review of on-site activities, wheel washing facilities will be implemented where they are deemed to be required.	To prevent impacts from Trackout	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-AQ-029	Air Quality	Maintenance venting will take place during the day. Meteorological conditions should be checked before commencement of pipeline maintenance.	Minimise likelihood of odours during Operation	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	The Applicant	CEMP approved by the Local Authority	Operation	
PW-AQ-030	Air Quality	When maintenance venting operations are planned to take place, signs will be placed on/near the nearby footpaths (301/55/10 and 301/56/10), warning of potential works and that odours may be experienced on the dates selected for maintenance venting.	Minimise likelihood of odours being detected during Operation	Chapter 6: Air Quality (PW.3.2.6) of the Environmental Statement	The Applicant	CEMP approved by the Local Authority	Operation	

PW-CR-001	Climate Resilience	A list of extreme weather-related incidents (for example, rainfall, heatwaves, snow and ice, etc.) will be maintained by the Applicant to assist in identifying thresholds which, when exceeded, require maintenance or alteration. Inspections will be carried out following an intense rainfall event or heatwave to monitor any damage and implement appropriate mitigation as necessary. A schedule of general inspections and principal inspections of each structure will be carried out to determine condition of the AGI and identify any potential maintenance requirements. Inspections will be undertaken following an intense rainfall event or heatwave to monitor any damage, maintain surface water drainage features and implement appropriate mitigation as necessary. The Padeswood Spur Pipeline Proposed Development will have an Operations and Maintenance Procedure for routine maintenance and inspection visits of the Carbon Dioxide Pipeline and the AGI to ensure their protection against potential climate impacts identified.	To ensure there is mitigation to prevent damage/degradation of the Padeswood Spur Pipeline Proposed Development arising from drought.	Chapter 7: Climate Resilience (PW.3.2.7) of the Environmental Statement	The Applicant	CEMP approved by the Local Authority	Operation	
PW-CR-002	Climate Resilience	Pipeline to be constructed of welded steel construction to allow the pipeline to withstand some ground movement	To prevent damage/degradation of the Padeswood Spur Pipeline Proposed Development arising from drought.	Chapter 7: Climate Resilience (PW.3.2.7) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design/Construction	
PW-CR-003	Climate Resilience	A lightning Protection Study will be performed during Detailed Design, and all necessary protective measures implemented.	To ensure there is mitigation to protect against damage/degradation of the Padeswood Spur Pipeline Proposed Development arising from lightning strikes	Chapter 7: Climate Resilience (PW.3.2.7) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Design/Construction	
PW-CR-004	Climate Resilience	No permanent structures will be over five metres in height within the AGIs	To protect against damage/degradation of the Padeswood Spur Pipeline Proposed Development arising from lightning strikes	Chapter 7: Climate Resilience (PW.3.2.7) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design/Construction	
PW-CR-005	Climate Resilience	Permanent above ground features in the AGIs will be attached to concrete foundations and consideration will be taken during design with relation to wind loading in accordance with EN 1991-1-4 "Eurocode 1: Actions on structures".	To ensure wind loads are adequately accounted for.	Chapter 7: Climate Resilience (PW.3.2.7) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design/Construction	
PW-CR-006	Climate Resilience	The E&I kiosks will be weather-sealed, and the outdoor electrical and instrumentation equipment will be IP-rated.	To protect against damage/degradation of the Padeswood Spur Pipeline Proposed Development arising from storm conditions	Chapter 7: Climate Resilience (PW.3.2.7) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design/Construction	
PW-CR-007	Climate Resilience	Consideration will be taken during design with relation to snow loading in accordance with "Eurocode 1: Actions on structures - Part 1-3: General actions — Snow loads".	To ensure snow loads are adequately accounted for.	Chapter 7: Climate Resilience (PW.3.2.7) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design/Construction	
PW-CR-008	Climate Resilience	Drainage from the Padeswood AGI will be linked to the wider Padeswood CCS Plant drainage system, which has been subject to a Flood Consequence Assessment.	To protect against flooding of the Padeswood AGI	Chapter 7: Climate Resilience (PW.3.2.7) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design/Construction	
PW-CR-009	Climate Resilience	Above ground equipment will be specified with a high-quality external coating to protect from all credible external corrosive mechanisms, regardless of rainfall volume.	To protect against damage/degradation of the Padeswood Spur Pipeline Proposed Development arising from storm conditions	Chapter 7: Climate Resilience (PW.3.2.7) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design	
PW-CR-010	Climate Resilience	Prior to decommissioning, a Decommissioning Environmental Management Plan will be developed and agreed with relevant stakeholders.	Protect workers and the site from climate effects	Chapter 7: Climate Resilience (PW.3.2.7) of the Environmental Statement	The Applicant	Decommissioning Environmental Management Plan approved by the Local Authority	Decommissioning	
PW-CH-001	Cultural Heritage	Mitigation strategies will be developed following further archaeological evaluation across the Padeswood Spur Pipeline Proposed Development. The results of archaeological trial trenching (which is ongoing during the Pre-Application Consultation period) will determine if any mitigation measures will be required to protect, or record below ground archaeology.	N/A	Chapter 8: Cultural Heritage (PW.3.2.7) of the Environmental Statement	N/A	N/A	N/A	
PW-BD-001	Biodiversity	The design of the Padeswood Spur Pipeline Proposed Development has avoided sites and habitats subject to nature conservation designations where possible. Where significant crossings are required, such as the Wepre Brook (which is hydrologically connected to the River Dee Estuary SPA, SAC and Ramsar), trenchless installation techniques will be employed preventing the need for open-cut construction methods. Through use of trenchless installation techniques, impacts arising from construction upon habitats and species associated with designated sites will be avoided and reduced.	To avoid adverse impacts to designated sites and protected species and comply with conservation legislation	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority Approval of Detailed Design / construction in accordance with approved plans	Design / Construction	
PW-BD-002	Biodiversity	Where possible, Ancient Woodland has been excluded from the Padeswood Spur Pipeline Proposed Development. Trenchless installation techniques to avoid and reduce adverse effects on Ancient Woodland present within the Padeswood Spur Pipeline Proposed Development will be implemented.	To avoid adverse impacts to Ancient Woodland	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design / Construction	
PW-BD-003	Biodiversity	Micro-siting techniques will be employed throughout the Detailed Design of the Padeswood Spur Pipeline Proposed Development, including during pre-construction and construction to avoid sensitive habitats, trees (including ancient and veteran trees and trees covered by Tree Preservation Orders and trees within Conservation Areas), hedgerows, etc., as much as practicably possible. Where opportunities exist for routing through existing gaps in hedgerows, scrub and woodlands, avoiding the need to remove vegetation, these will be prioritised.	To minimise adverse impacts on designated sites/ habitats/ watercourses/trees.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority Approval of Detailed Design / construction in accordance with approved plans	Design / Pre-Construction / Construction	
PW-BD-004	Biodiversity	All waterbodies identified during baseline surveys are outside the Red Line Boundary and will be retained and will not be temporarily or permanently lost to facilitate construction of the Padeswood Spur Pipeline Proposed Development. Where necessary the ECoW will advise on the need for the installation of temporary exclusion buffer to avoid/reduce potential adverse impacts to waterbodies and associated terrestrial bankside habitat and associated aquatic receptors from construction.	To avoid impacts to waterbodies and associated riparian and aquatic receptors	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority Approval of Detailed Design / construction in accordance with approved plans	Design / Construction	

PW-BD-005	Biodiversity	Where hedgerow removal is required to facilitate the development, it is assumed that this will be kept to a maximum width of 17 m (this includes both hedgerows and the trees that site within hedgerows). Where the pipeline crosses vegetation at a 90 degree angle, losses will be a maximum of 12 m. Opportunities to reduce the amount of hedgerow removal required at each hedgerow crossing will be explored, with the smallest practicable width of hedgerow removal possible prioritised. All trees and hedgerows sited above any trenchless crossing point will be retained.	To minimise adverse impacts on Habitats of Principal Importance (HPI)	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority Approval of Detailed Design / construction in accordance with approved plans	Design / Construction	
PW-BD-006	Biodiversity	A minimal working width at watercourse crossings will be adopted, as far as practicable, to minimise potential impacts of open cut watercourse crossings.	To minimise and avoid impacts to aquatic habitats	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority Approval of Detailed Design / construction in accordance with approved plans	Pre-Construction / Construction	
PW-BD-007	Biodiversity	All entry and exit pits for all trenchless crossings will be sited a minimum of 8 m away from any main riverbank top (and any defence structure on that watercourse). Stand-off distances around watercourses will be implemented prior to the commencement of works and clearly demarcated through the use of physical barriers (fencing, tape or similar). A minimum 8 m buffer will be demarcated around main river watercourses.	To avoid impacts to watercourses and associated riparian and aquatic receptors	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority Approval of Detailed Design / construction in accordance with approved plans	Design / Construction	
PW-BD-008	Biodiversity	Plant, personnel and site traffic will be constrained to a prescribed working corridor through the use of temporary barriers, where practicable, to firstly avoid and secondly minimise damage to habitats, encroachment of the construction easement, and potential direct mortality and/or disturbance of fauna located within and adjacent to the construction corridor	To avoid impacts to habitats and species	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-BD-009	Biodiversity	<p>Prior to construction, a team of suitably qualified and experienced Ecological Clerk of Works (ECoWs) will be appointed to support, oversee and monitor the Construction Contractor with the implementation of measures defined within the CEMP. ECoWs may be required during construction to ensure appropriate oversight of multiple active works locations. Broadly, the ECoW will:</p> <ul style="list-style-type: none">•Provide ecological advice to the Construction Contractor over the entire construction programme, at all times as required.•Undertake or oversee pre-construction surveys for protected species in the areas affected by the Padeswood Spur Pipeline Proposed Development.•Monitor ecological conditions during the Construction Stage to identify additional constraints that may arise as a result of natural changes to ecological baseline over time, e.g., the monitoring of badger activity within and in close proximity to construction works.•Provide ecological toolbox talks to site personnel to make them aware of ecological constraints and information; highlight mitigation to minimise impacts; and make site personnel aware of their responsibility with regards to wildlife and sensitive habitats in the context of legislation and policy. Toolbox talks will include, as required, all ecological receptors considered within the ES as a minimum.•Monitor the implementation of mitigation measures during the Construction Stage to ensure compliance with protected species legislation, licensing, and commitments within the ES. The ECoW will have previous experience in similar ECoW roles and be approved by the Applicant. The ECoW will be appointed in advance of the main construction programme commencing to ensure pre-construction surveys are undertaken and any advance mitigation measures required are implemented.	To ensure implementation of mitigation measures, track compliance with commitments and legal requirements.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-010	Biodiversity	All necessary permits, licences and consents will be applied for from relevant bodies in advance of construction or enabling works commencing. Only once licence/permit applications have been granted, and any initial licensed actions completed, can works commence. Licences and permits are likely to include, but are not limited to, derogation licences for protected species, permits for in-water works, etc. Consents are likely to be required for works in proximity to statutory designated sites (deemed granted through the planning process pending NRW approval).	To protect sites, habitat and fauna.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction	
PW-BD-011	Biodiversity	<p>The Applicant will appoint a suitably qualified ECoW to conduct Environmental Compliance Audits during construction of the Padeswood Spur Pipeline Proposed Development. The 'Auditing ECoW' will undertake checks of the Construction Contractor and their ECoW(s) reporting on compliance of construction works, mitigation and activities on site against the ES and detailed Construction Environmental Management Plans (CEMPs), as well as any obtained licences, permits or assents.</p> <p>The ECoW will produce monthly reports (or otherwise agreed reporting deadlines in response to on-site activities) and provide written and verbal feedback to the Construction Contractor on performance and adherence with the ES, detailed CEMP, licences, permits and assents throughout the construction period, as required.</p>	To ensure implementation of mitigation measures and legal requirements.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	The Applicant	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-012	Biodiversity	A pre-commencement walkover survey will be completed by the ECoW (or appointed ecologist) of areas within the Red Line Boundary (extended where necessary to encompass a relevant zone of influence as determined by the ECoW/ecologist) of any areas that could not be accessed during baseline surveys completed in 2024 and 2025. The walkover survey shall include a ground level assessment of land in search of presence or activity of protected and or notable species. The walkover survey results will determine the need for additional survey, mitigation and/or licensing beyond that included within the ES; to be considered in advance of construction commencement. Results of surveys and any need for mitigation and licensing will be discussed with relevant stakeholders (e.g. NRW, FCC) where required, with updates captured within the detailed CEMP.	To update baseline survey results and protect species and habitats.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority Approval of Detailed Design / construction in accordance with approved plans	Design / Pre-Construction	
PW-BD-013	Biodiversity	The need for pre-construction surveys to update baseline results across the Red Line Boundary will be assessed by the appointed ecologist/ECoW following confirmation of Detailed Design of the Padeswood Spur Pipeline Proposed Development. Pre-construction surveys may be necessary to update baseline results in advance application of protected species licenses/permits/exemptions required to facilitate construction of the Padeswood Spur Pipeline Proposed Development.	To protect species	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction	
PW-BD-014	Biodiversity	<p>Site/vegetation clearance and tree felling will be kept to a minimum as far as practicable to reduce the impacts of habitat loss and fragmentation. Areas of clearance, particularly those within temporary works, shall be identified within a works plan and agreed with the ECoW.</p> <p>Site clearance of dense vegetation will be undertaken carefully (where possible using hand tools) and by experienced contractors to reduce the risk of mortality to wildlife. Care will be afforded to dense stands of bramble or similar vegetation, which may be used by sheltering hedgehog or other wildlife, particularly during the winter months.</p> <p>Where trees and other woody vegetation are to be felled/ cleared, the felled material will, where practicable, be used to create hibernacula within appropriate retained habitats rather than being chipped. Locations will be identified by the appointed ECoW during construction.</p>	To reduce impacts to flora and fauna, reduce habitat loss and fragmentation.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-015	Biodiversity	<p>Where temporary lighting is required during construction, a suitable lighting design (where necessary on a case-by-case basis) for implementation across the Padeswood Spur Pipeline Proposed Development will be developed in accordance with best practice guidance on lighting with regards to protected species, will broadly include:</p> <ul style="list-style-type: none">•Avoidance of direct lighting on any buildings or trees that contain bat roosts or barn owl nest/roost sites;•Avoidance of artificial lighting of watercourses as far as practicable, particularly during the hours of darkness to prevent impacts to fish behaviour or passage;•Avoidance of light spill using directional and or baffled lighting;•The use of movement triggers, thus lighting only turns on when people (large objects) move through the area (use within Construction Compounds);•Positioning of lighting columns away from habitats of value to foraging and commuting bats and other nocturnal fauna (e.g. hedgerows, trees, woodland);•Reducing the height of lighting columns to reduce light spill onto adjacent habitats;•Undertaking works during daylight hours (broadly 08:00 to 18:00) reducing the need for night-time lighting; and/or•Avoidance of use of blue-white short wavelength lights and high UV content where necessary to avoid impacts to biodiversity.	To reduce disturbance to fauna.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	

PW-BD-016	Biodiversity	<p>Prior to works commencing a pre-commencement walkover survey for badger will be undertaken of the works area and to a distance of 30 m from the Red Line Boundary (extended at the discretion of the ECoW/appointed ecologist).</p> <p>A pre-works walkover survey will be undertaken by the ECoW to confirm that baseline results remain accurate and relevant. The survey work is recommended to be undertaken at least three months in advance of the commencement of works.</p> <p>The alignment of the Padeswood Spur Pipeline Proposed Development will, wherever practicable, maintain a 30 m buffer from all sett entrances associated with main, annex, subsidiary, and outlier setts. Where this is not possible, at the discretion of the ECoW and in response to the type, duration and extent of works, a reduction in exclusion buffer size may be granted. Where not possible, appropriate mitigation measures will be devised and captured within a method statement alongside an application for a badger licence (where considered necessary). Mitigation measures may include the temporary or permanent closure and destruction of a sett under licence. Only upon receipt of a granted licence and following completion of all necessary licence requirements/mitigation can works commence.</p> <p>The setts identified in the Badger Survey Technical Appendix (Confidential) (Document Reference: PW.3.3.9.6) will require mitigation to avoid where possible direct and indirect impacts. Setts requiring closure will be subject to protected species licence applications detailing proposed closure methods and mitigation (where necessary) and timeframes, in advance of construction commencement. The process and method of sett closure will be detailed within method statements, accompanying any licence application.</p> <p>Methods are broadly to follow:</p> <ul style="list-style-type: none">•Preparation of method statement and licence application with submission to relevant body.•Appointment of an appropriately experienced and licensed ecologist to oversee the closure process and adherence to licence requirements following granted licence receipt.•Installation of wire mesh and one-way gates on and around sett entrance/s. A minimum period of 21 days monitoring post gate installation, to determine whether badger have vacated a sett.•If signs of badger re-entry are recorded, exclusion measures will be repaired and extended (as required) and the 21-day monitoring period restarted.•Following successful conclusion of 21-day period without badger activity or evidence, destruction of the sett by careful excavation under the supervision of the licensed ecologist (or named accredited agent). <p>Sett closure and destruction is restricted to the period July to November inclusive. Only once the entirety of the sett exclusion period has been successfully completed (i.e. no evidence of badgers occupying or utilising the sett) can destruction of the sett take place and construction commence thereafter.</p> <p>Should a badger sett or activity be discovered within a zone of influence of proposed construction works, mitigation will be developed and, where required, an application for a derogation licence from NRW will be applied for in advance of construction. Any necessary mitigation to facilitate construction will be implemented in advance of construction commencement (within that zone of influence) following receipt of a granted licence.</p>	To protect species.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction	
PW-BD-017	Biodiversity	<p>Due to the presence of badger within the Red Line Boundary, badger permeable fencing will be used, where fencing is required to allow the free movement of badger through the landscape. It may be necessary to implement temporary badger-resistant fencing around spoil heaps/storage locations to prevent any attempts of sett creation/excavation. Where possible, spoil will be stored in heaps with shallow angles to dissuade badger from sett creation attempts. Spoil heaps will be left in situ for as short a duration as possible, or else covered and secured with appropriate material (e.g. tarpaulin), where considered required by the ECoW.</p>	To avoid adverse impacts to badger movement within the landscape.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-018	Biodiversity	<p>To prevent entrapment of wildlife, where trenches or voids are to be left overnight, a suitable means of escape will be provided (such as a ramp at no greater than a 45° angle) at regular intervals along the excavated trench channel/excavations. Any void/trench channel should be visually inspected prior to re-starting works each morning to confirm the absence of entrapped wildlife. All escape measures will be discussed and agreed with the ECoW to ensure they are suitable for the size of void and wildlife that may become trapped. Any exposed tunnels or pipes will, where practicable, be covered or capped to prevent access to wildlife. If necessary, the ECoW may recommend additional measures such as the installation of temporary amphibian/ reptile fencing around voids / trenches to prevent entry.</p>	To protect wildlife.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-019	Biodiversity	<p>At present no bat maternity or hibernation roosts have been identified and mitigation is not proposed.</p> <p>Where practicable, trees containing roosts will be retained.</p> <p>A single transitional common pipistrelle bat roost has been identified at T275 during the 2024 baseline surveys. T275 is located along the Red Line Boundary and is anticipated to be retained. An NRW bat licenced ecologist or accredited agent will assess the potential for disturbance in response to the roost type, timing of works, duration and extent of works proposed in proximity to known roosts, advising of the need to implement mitigation (e.g. non-licenced bat method statement, with the roost retained and demarcated to an appropriate buffer, depending on the works and roost type, to safeguard the roost) or else apply for an NRW European Protected Species Licence (EPSL) to facilitate works.</p> <p>An NRW EPSL application will be required where trees with confirmed bat roosts cannot be retained or safeguarded and roosts will be lost.</p> <p>Further surveys to ascertain roost type, species present and number of bats will be required in advance of any NRW EPSL application to allow for the preparation of accompanying documents such as a licenced bat method statement, detailing methods of felling and necessary mitigation for any bat roosts to be lost. Works will be undertaken in compliance with an NRW EPSL when granted.</p>	To protect the Conservation Status of local bat populations.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-020	Biodiversity	<p>Pre-commencement surveys on PRF-M trees which may potentially be felled or damaged and where a roost is found.</p> <p>Pre-commencement surveys on PRF-M trees which may potentially be felled or damaged (which is anticipated to be T27, T31, T90, T106, T265, T266 and T267) will be completed to update baseline survey results. This will inform any requirements for an NRW EPSL application if a roost is found or a non-licenced bat method statement where PRFs remain present and bats are likely to be absent.</p> <p>Surveys will be undertaken prior to construction and during the active bat season (May to September inclusive, with at least two visits between May and August) with three aerial PRF- inspection surveys or three emergence surveys spaced a minimum of three weeks apart.</p> <p>Where a roost is found an NRW EPSL licence will be required, works are to be completed under a licenced bat method statement, with associated documents and a work schedule which will detail:</p> <ul style="list-style-type: none">•The method, scope and requirement of pre-commencement surveys.•The timing of works, which will be agreed in advance with the relevant statutory body and dependant on the species and type of roost identified, following completion of updated pre-commencement baseline surveys.•Felling protocols for bat roosts. <p>•Compensation requirements (for example, erection of compensatory bat boxes at an expected ratio of 3:1), which will be required to be installed ahead of any felling of trees covered within the EPSL.</p> <p>•Toolbox talks which will be carried out by the named bat ecologist (or accredited agent) and will provide a briefing to the site operatives to outline the planned works at each roost location, actions required if a bat is found, and their legal responsibility regarding bats and their roosts.</p> <p>Mitigation and compensation requirements are subject to agreement with NRW.</p>	To protect the Conservation Status of local bat populations.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-021	Biodiversity	<p>Upon completion of the updated pre-construction baseline surveys of PRF-M trees, trees which cannot be retained where no roost has been found but potential roost features remain , along with PRF-I trees (trees with the potential to support individual roosting bats only T351, T354, T468, T361, T362, T269, T281, T326, T478 and T345), will be soft felled under a non-licenced bat method statement and under supervision by NRW bat licenced ecologist or accredited agent.</p> <p>PRF-M and PRF-I trees proposed for felling (Appendix 9.4 - Bat Survey Report, Document Reference: PW.3.3.9.4) will be subject to an aerial tree PRF-inspection by NRW bat licenced ecologist or accredited agent and/or dusk emergence survey no more than 24 hours prior to pruning/felling to check for roosting bats.</p> <p>Soft felling will consist of the removal of major branches and limbs followed by section felling of the main trunk. Sections of trees with features suitable to support bats will be lowered to the ground for inspection by the NRW bat licenced ecologist or accredited agent. In the event a bat or roost is identified works will cease and liaison with NRW sought for further advice.</p> <p>Should a bat roost be recorded, a method statement detailing appropriate mitigation will accompany an NRW EPSL application for submission to the relevant statutory body. Only upon receipt of a granted licence and implementation of necessary mitigation (as detailed within the licence application) can works take place. In the unlikely event that a bat roost is found in a PRF-I tree, further surveys to support the NRW EPSL application would be required.</p>	To protect potential roosting bats.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-022	Biodiversity	<p>If practicable and at the discretion of the NRW bat licenced ecologist or accredited agent, where trees with potential roost features suitable for bats (but absent of roosting bats as determined through surveys) are to be felled to facilitate construction, trees will be felled in such a way as to retain the potential roost feature(s). These features will then be translocated and erected on nearby retained trees under direction of the NRW bat licenced ecologist or accredited agent to retain future viability of the feature as a roost.</p> <p>Where trees with suitable roost features (but absent of bat roosts as determined through surveys) are to be lost and it is not practicable or possible to retain potential roost features for erection on nearby retained trees; veteranisation of retained trees and creation of monoliths will be explored within the Padeswood Spur Pipeline Proposed Development under direction of an NRW bat licenced ecologist or accredited agent, to enhance landscape opportunities to support roosting bats.</p>	To protect potential roosting bats.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-023	Biodiversity	<p>For trees which are to be retained which have been identified as PRF-M where pre-commencement surveys have not been undertaken (for example for Red Line Boundary trees), potential impacts will be reviewed with respect of the type, extent and duration of works proposed, by an NRW licenced bat ecologist or accredited agent. The NRW licenced bat ecologist will then assign an exclusion buffer/demarcating the potential bat roost to avoid works within that distance. It is anticipated that a minimum buffer of 10 m will be applied. However, it is at the discretion of the NRW licenced bat ecologist and it may be possible to reduce the exclusion buffer where it is appropriate e.g. for minor access along an existing road.</p> <p>Where risk of disturbance/damage of a roost persists after an assessment by the NRW licenced bat ecologist, further survey work will be required and where a bat roost is present an NRW EPSL will be applied for. Works would only be allowed to proceed following receipt of a granted licence from NRW and implementation of any necessary mitigation (e.g. non licenced bat method statement).</p>	<p>To avoid adverse impacts on protected species.</p> <p>To protect the Conservation Status of local bat populations.</p>	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	

PW-BD-024	Biodiversity	Hedgerows that require removal to facilitate construction will be translocated during construction and maintained so they can be translocated back into the hedgerow they came from to mitigate the loss and fragmentation of Important Hedgerows and Hedgerow Priority Habitats. The full hedgerow translocation strategy will be detailed pre-construction in the Contractor's CEMP. This will need to detail the translocation methods, timings, care during and after translocation and the methods for translocation of the hedgerows on completion of the pipeline construction. Establishment will be assessed by the ECoW (as part of during construction and post-construction monitoring of reinstated habitats).	To avoid adverse impacts to Important and Priority Habitat Hedgerows and protected species and to limit the length of time hedgerows are fragmented and maintain structure post-construction. To limit the time hedgerow gaps are present and to maintain commuting and foraging routes.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-BD-025	Biodiversity	Mature, locally characteristic native shrubs will be used for replanting gaps in hedgerows created by the proposed works, if translocation is not fully successful in maintaining viable shrubs. Establishment will be assessed by the ECoW (as part of post-construction monitoring of reinstated habitats).	To avoid adverse impacts to Important and Priority Habitat Hedgerows and protected species and comply with conservation legislation. To maintain commuting and foraging routes.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-026	Biodiversity	Post construction, all hedgerows subject to hedgerow loss to facilitate construction, and where translocation has not been successful, will be reinstated with native species of local provenance in-keeping with the overall species compositions of hedgerows. Reinstatement will comprise a combination planting of whips and standard-sized shrubs. Planting shall be selected to match as close as possible, the height of any adjacent retained hedgerow. Hedgerows directly impacted as a result of the Padeswood Spur Pipeline Proposed Development (i.e. those not impacted as a result of Construction Compounds) will be reinstated within 1 year of impact.	To avoid adverse impacts to protected species and comply with conservation legislation.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction / Operation	
PW-BD-027	Biodiversity	Following planting of all impacted hedgerows post construction, those hedgerows identified as important for bats (Appendix 9.4 - Bat Survey Report (Document Reference: PW.3.3.9.4)) will be supplemented through the installation of temporary flight lines to maintain linear structure whilst planted sections establish. In addition, such hedgerows will be subject to monitoring through monthly crossing point surveys during the first active bat season following hedgerow reinstatement (period May to September inclusive) to determine use (or otherwise) by target species (for example lesser horseshoe Rhinolophus hipposideros and activity levels considered sufficiently high to affect the favourable conservation status of other species (e.g. brown long-eared bat Plecotus auritus and Myotis species). Only once the planted hedgerow section has established to levels akin to the unimpacted hedgerow, as assessed by an appropriately experienced ecologist, can the artificial flight line be removed.	To avoid adverse impacts to protected species and comply with conservation legislation. To maintain commuting and foraging routes.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction / Operation	
PW-BD-028	Biodiversity	A pre-commencement survey in search of evidence/activity of riparian mammals (namely otter and water vole) in watercourses crossed by the Padeswood Spur Pipeline Proposed Development, and those within an appropriate buffer of proposed works. Surveys should include all sections of watercourses within the Working Width, extending to 150 m either side of the Working Width, as a minimum. This should also include watercourses not crossed but within potential disturbance distance of construction works at the discretion of the ECoW/appointed ecologist. Surveys will be undertaken at least 3 months prior to construction works commencing to confirm baseline conditions and mitigation proposals remain accurate or else inform requirements for new mitigation and/or licencing.	To protect riparian mammals and update riparian mammal baseline data should an EPS or a WCA Licence application be required.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction	
PW-BD-029	Biodiversity	Where temporary culverts are to be installed, these will remain in place for as short a time as practicable only to serve facilitating construction, suitable commuting routes for riparian mammals will be demarcated around any temporary culverts. Reinstatement of habitats following culvert removal will be undertaken where considered necessary by the ECoW, or else left to naturally regenerate. Temporary culverts required on main and ordinary watercourses (i.e. not field ditches) will be suitability sized and designed/installed to best practice Fish Pass standards.	To avoid adverse impacts to protected species and comply with conservation legislation.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-030	Biodiversity	Trees and nest boxes recorded within the Padeswood Spur Pipeline Proposed Development which have been identified as suitable to support roosting or nesting barn owl (Barn Owl Tech Note (Confidential)) will be subject to a pre-construction survey to ascertain the use of the feature(s) by barn owl. Whilst known barn owl roost and nest sites will be avoided and retained where possible, exclusion of barn owls from barn owl boxes and other features may be required under licence. Where this is required, a minimum of 30 days prior to the exclusion works compensatory barn owl boxes (at a ratio 1:1) will be erected in suitable locations under supervision of an appropriately licensed ecologist, where practicable, within 250 m of the feature/box being excluded to compensate for the temporary loss of roosting and/or nesting sites. Erected boxes will be sited in locations that will not be subject to disturbance or impact by construction under the advice of a barn owl licensed ecologist. Following the completion of construction works and the removal of Construction Compounds, any barn owl features temporarily excluded will be re-opened for use by barn owl.	To compensate for the temporary loss of barn owl nesting / roosting sites and protect barn owl.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-031	Biodiversity	Trees recorded within the Padeswood Spur Pipeline Proposed Development suitable for barn owl roost sites will be subject to an ecological inspection during the winter period (October – February inclusive) prior to works commencing. Where no evidence of nesting barn owl is visible, features will be temporarily blocked up until construction works and activities within a 250 m buffer have been completed. Upon completion of construction works, features will be unblocked.	To reduce the impact to barn owl disturbance.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction	
PW-BD-032	Biodiversity	No barn owl nesting sites were identified within the Red Line Boundary or within 30 m of it during surveys to date. In order to adopt a suitably precautionary approach to development pre-construction surveys will be carried out to determine if any nesting sites have become established in the intervening period from surveys in 2024 and the commencement of construction. In the event that barn owl nesting sites are identified, construction in proximity to barn owl nest sites that have not been subject to temporary exclusion measures (i.e. nests that have established after construction commencement) will be temporarily and spatially restricted to avoid or reduce impacts of disturbance in accordance with the below criteria (developed in accordance with good practice): •Pedestrian movement of a Low to Medium Disturbance Risk, e.g. site personnel walking near nests/roosts, will implement a Minimum Protection Zone of 20 m. •Artificial lighting of a Low to Medium Disturbance Risk, e.g. illumination of works area (no direct lighting or nest/roost), will implement a Minimum Protection Zone of 30 m. •Vehicular movements of a Medium Disturbance Risk, e.g., vehicles or heavy plant moving past nest / roost sites, will implement a Minimum Protection Zone of 40 m. •General light building and landscape works of a Medium to High Disturbance Risk, e.g., laying concrete, using mechanised plant will implement a Minimum Protection Zone of 60 m. •Where heavy vehicles and plant for construction could create a High Disturbance Risk in proximity of active barn owl nests, e.g. piling or compaction works, ground levelling, crushing of materials, a Minimum Protection Zone of 100 m from the nest site during the nesting season will be implemented. It is assumed that works will be undertaken during daylight hours, however, some night-time work will be required. Where works need to be conducted within the minimum protection zone these will be discussed with the ECoW, and where necessary a barn owl licensed ecologist, who will assess the proposed works, duration and extent and potential use of mitigation to facilitate works. Where works are deemed to pose a significant risk to nesting barn owl, licensing may be required and/or the rescheduling of works to periods outwith the most sensitive period (March to June inclusive), however, this would be at the discretion of the ECoW/barn owl licensed ecologist.	To comply with conservation legislation and protect barn owl.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	

PW-BD-033	Biodiversity	Invasive Non-Native Species (INNS) are present within the Padeswood Spur Pipeline Proposed Development (Appendix 9.2 - Preliminary Ecological Appraisal Report (Document Reference: PW.3.3.9.2)). A Biosecurity Method Statement will be implemented throughout the construction of the Padeswood Spur Pipeline Proposed Development. The Biosecurity Method Statements will detail the locations and extent of any INNS and other biosecurity concerns, appropriate measures to control, prevent further spread or eradicate the species from the area if necessary. Appropriate good hygiene measures (e.g. Check, Clean, Dry methods) will also be included. Workers should be equipped with the necessary equipment, Personal Protective Equipment (PPE) and substances to implement biosecurity control measures, including effective hygiene and sanitation practices. This will most frequently comprise disinfectant tablets, sprayers, and brushes to clean and disinfect equipment and PPE prior to entering/leaving construction areas. Other noteworthy biosecurity considerations (e.g. avian flu, bovine TB) will also be referenced within a Biosecurity Management Plan to be produced prior to commencement.	To prevent the spread of invasive species and manage other biosecurity concerns.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-034	Biodiversity	Where INNS are located and within the construction corridor, the engagement of an INNS specialist will be sought whom will provide options for treatment and or removal in advance of construction. Any remaining stands of INNS will be subject to exclusion zones which will be clearly and physically demarcated and enforced around areas of invasive species to avoid spread or propagation. The extent of buffer will be determined by the species and in consultation with the ECoW. Biosecurity measures, as detailed within a Biosecurity Management Plan to be prepared at detailed design will be implemented during construction to prevent the spread of INNS.	To prevent the spread of invasive species and manage other biosecurity concerns.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-035	Biodiversity	Vegetation and site clearance works will be undertaken outside the bird nesting period, recognised as March to August inclusive, to avoid damage or destruction of nests. Where this is not possible, site clearance will be preceded by an inspection from an experienced ECoW within 24 hours of clearance works commencing to confirm the absence of active nests or nesting activity. If an active nest is recorded, a minimum exclusion zone of 5 m, where practicable, within which no works can take place (exclusion zone size will be at the discretion of the ECoW and in response to the species of bird encountered) and remain in place until the nest is confirmed inactive (either eggs hatch and chicks have fledged, or the nest attempt fails). All cleared vegetation will be rendered unsuitable for nesting birds, for example, by covering or chipping depending on the end purpose of the vegetation or will be removed from the works area.	To protect nesting birds.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-036	Biodiversity	Given the confirmed presence of GCN within the below listed waterbodies, an EPS Licence from NRW will be required to enable the construction of the Padeswood Spur Pipeline Proposed Development: Waterbodies 10, 11, 15 – 25, 41, 47 and 48 No waterbodies are to be lost as part of the Padeswood Spur Pipeline Proposed Development. Terrestrial habitat suitable for supporting GCN in their terrestrial phase will be temporarily or permanently impacted. Works will proceed under a GCN Precautionary Working Method Statement (PWMS) under ECoW supervision. This will include a provision for suitable timing of works to take place, i.e. where terrestrial habitat suitable for overwintering GCN is to be cleared, this will only be carried out during the active GCN season, generally from March to September, when overnight temperatures are consistently above 5 °C. Clearance of such terrestrial habitat will be subject to inspection, at the discretion of the ECoW, in advance of clearance.	To protect the Conservation Status of local GCN populations.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-037	Biodiversity	Where suitable GCN terrestrial habitat will be impacted, either temporarily or permanently, habitat clearance will take place prior to construction works. This will be undertaken under a PWMS and ECoW supervision and will include: •Prior to the commencement on site, it is recommended all site operatives attend a briefing from the ECoW. This will include a description of the location of known GCN populations in proximity to the works area, legislative policy, identification of GCN and other amphibians, how works will proceed under a PWMS and what occurs in the event a GCN, or other species, is found. •The gradual strimming of vegetation following ECoW inspection of vegetation to a short sward. Vegetation should be inspected by the ECoW, and if clear, strimmed to 10 cm; then checked again by the ECoW before strimming to ground level. Vegetation should then be maintained as a short sward for the duration of the construction works. •The deployment of newt-proof fencing to isolate works areas.	To protect GCN and other amphibians.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-038	Biodiversity	Where practicable, construction works will avoid works on watercourses during high flow events to reduce the risk of fine sediment release, increased flood risk, and impacts to aquatic ecology. Where possible, the Construction Contractor will seek to target activities at or near watercourses during the drier summer months to reduce this risk.	To avoid adverse impacts on water quality and aquatic species.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-039	Biodiversity	Turbidity and oxygen monitoring to be undertaken during the Construction Stage where deemed required due to the sensitivity of aquatic species receptors. The need and frequency of turbidity and oxygen monitoring would be determined by the regulatory authority and detailed in any required permits for undertaking work within or near watercourses.	To avoid adverse impacts on water quality and aquatic species.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-BD-040	Biodiversity	Watercourses will be reinstated to mimic baseline conditions as far as practicable, including bank forms, in-channel features (such as riffles, pools, point bars etc), and morphological diversity. This includes the reinstatement of the vegetation assemblage and structure, using an appropriate species mix, within the riparian zone and in-channel. Works on watercourses will be restricted to the minimal width required for the construction activity to reduce impacts, with vegetation clearance occurring immediately prior to construction where practicable. An 8 m buffer zone between the construction zone and the watercourse will be retained, wherever practicable.	To minimise and avoid impacts to waterbodies and associated riparian and aquatic receptors.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority Approval of Detailed Design / construction in accordance with approved plans	Design / Construction	
PW-BD-041	Biodiversity	Temporary culverts and causeways/access routes will be removed as soon as practicable when no longer required.	To avoid adverse impacts to protected species and comply with conservation legislation.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-BD-042	Biodiversity	Temporary discharges will comply with the requirements for permits Main Rivers from NRW, regarding both acceptable discharge volumes and water quality.	To avoid adverse impacts to protected species, surface water quality, groundwater and flood risk and comply with conservation legislation.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-BD-043	Biodiversity	Sensitivity (e.g. to noise and vibration) of those fish species present will be considered to ensure that appropriate construction methods can be implemented to minimise and avoid disturbance or avoidance behaviour. A Noise and Vibration Management Plan will be implemented. This will include, but not be limited to, information on the pile driving methodology, including commencing with a soft start, and thereafter proceeding with either press or vibration pile driving. If needed, percussion or hammer pile driving will be limited, within reason, to sink the piles to design depth.	To avoid adverse impacts to protected species and comply with conservation legislation.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-BD-044	Biodiversity	Seeded biodegradable fibre matting will be used to encourage re-vegetation after works on, or near, the banks of each watercourse (except field drains unless otherwise advised by the ECoW) disturbed by the works to reduce establishment time and to help support bank structure. A suitable seed mix appropriate to produce a tussocky species-rich sward will be used to mitigate for the loss of habitats suitable to support riparian mammals. Where appropriate, willow whips will be installed to both provide green bank protection and to mitigate loss of riparian habitat. A sediment boom will be used downstream of the temporary crossing to intercept any sediment artificially mobilised during the Construction Stage.	To minimise adverse impacts to watercourses and associated riparian and aquatic receptors.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	

PW-BD-045	Biodiversity	During any river dewatering and/or in-channel working, a fish rescue plan will be employed. Where areas are required to be temporarily dewatered to facilitate construction activities, fish will be removed under NRW consent and relocated before dewatering. Any environmental permit(s) shall be obtained and in place before the creation of a temporary dry channel. The construction of a temporary dry channel shall be undertaken by the mitigation measures contained within the Detailed CEMPs and any other relevant measures prescribed by granted permits from NRW. A pump may be required to divert flows during construction. Where this occurs, a 2 mm screen will be fitted on the transfer intake to minimise the risk of fish and eel entrainment.	To avoid adverse impacts to protected species and comply with conservation legislation	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-BD-046	Biodiversity	The Construction Contractor will, as far as practicable, seek to reduce watercourse crossings for those watercourses that do not intersect the Red Line Boundary, and/or those with a partial extent or reach within the Red Line Boundary.	To minimise impacts on aquatic fauna and flora through a reduction of potential watercourse crossings.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-BD-047	Biodiversity	Reinstatement of Habitats of Principal Importance (HPI) will take place post construction, however, recognising the need to reinstate with alternative habitats should former habitats potentially interfere with the buried pipeline (e.g. where trees are removed and cannot be reinstated, scrub will be planted as an alternative). Species will comprise native species of local provenance and will comprise a mixture of species. Planting should be undertaken in the appropriate planting season but as soon as possible following completion of the works to reduce the likelihood of undesired colonisation by flora or INNS. Non-HPI/Biodiversity Action Plan (BAP) habitats impacted by construction will be reinstated on a like-for-like basis at the locations of loss/impact. Where adjudged appropriate, certain habitats may be left to naturally recover or otherwise be left to be managed by landowners, rather than be subject to dedicated mitigation planting/sowing (e.g. arable fields, pasture grassland). Habitats requiring mitigation planting/sowing will be shown in the Landscape Design of the Padeswood Spur Pipeline Proposed Development and captured within the CEMP. Reinstated habitats will be monitored and managed for a minimum 5-year period post reinstatement. Any dead or dying plants will be removed and replaced during the monitoring period.	To compensate for loss of habitats.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Construction / Post-Construction	
PW-BD-048	Biodiversity	Where woodland and trees are to be lost to facilitate construction of the Padeswood Spur Pipeline Proposed Development, these will be mitigated for through the planting of trees across areas identified within the NBB Report (Document Reference: PW.4.3). Trees will be replaced at a ratio of 3:1 and will comprise planting of native species of local provenance, in-keeping with woodland within the wider landscape. Areas for planting will be sought to prioritise areas based on connections to, and to enhance, existing green infrastructure. Management of newly planted woodland and trees will be prescribed by the detailed CEMP but will broadly follow management across a 10-year period during establishment. Management of other habitat types (e.g. scrub and riparian planting) will be subject to a 5-year management plan.	To mitigate for the loss of woodland and trees.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction / Post-Construction	
PW-BD-049	Biodiversity	Where woodland and trees are to be lost to facilitate construction of the Padeswood Spur Pipeline Proposed Development these will be mitigated for through the planting of trees. Riparian enhancements are proposed along the Bracken's Drain, subject to landowner agreement, to off-set tree loss along watercourses which cannot be reinstated due to the pipeline root exclusion zone.	To minimise adverse impacts on protected/notable species and habitats.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-BD-050	Biodiversity	In advance of decommissioning works, ecology surveys will be undertaken, where required, to determine the ecological baseline and presence, or otherwise, of protected and/or notable species to determine any mitigation or licensing requirements in advance of decommissioning works commencement.	To minimise adverse impacts on protected/notable species and habitats.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	The Applicant	CEMP approved by the Local Authority	Decommissioning	
PW-BD-051	Biodiversity	Opportunities for enhancement will be identified prior to and throughout construction of the Padeswood Spur Pipeline Proposed Development. Enhancement opportunities will be reflected within the detailed CEMPs as and where identified, but may include: •Where possible, cleared deadwood, felled trees and arisings from site clearance works will be used in a variety of locations to benefit wildlife. These locations will be determined by the ECoW and based on site conditions at the time. Materials will be stored in a suitable location away from the working area to prevent risk of damage and then placed within areas of retained woodland or woodland planting at an appropriate time. •Bat and bird boxes will be installed in unlit areas on multiple aspects (including facing south, west or east) at a height of a minimum of 3 m and have a clear flight path to the access point. The bat boxes will be located within existing or newly created suitable foraging and commuting habitats. The requirements of the bird boxes will be specific to the type installed and manufacturers advice will be followed. The bat and bird boxes could be placed within existing retained woodlands, during construction or once mature, the boxes could be placed within newly created woodlands, (on poles or mature existing trees along the edge), post-construction. •Where practical and bats are absent, potential roost feature(s) from felled trees will be translocated and erected on nearby retained trees under direction of the NRW bat licenced ecologist or accredited agent to retain future viability of the feature as a roost. •Veteranisation of selected and suitable retained trees and creation of monoliths will be explored under direction of an NRW bat licenced ecologist or accredited agent, to enhance landscape opportunities to support roosting bats.	To provide opportunities for biodiversity.	Chapter 9: Biodiversity (PW.3.2.9) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-BD-052	Biodiversity	Should any dead or visibly injured fish be observed during construction they should be reported immediately to Natural Resources Wales	To safeguard aquatic ecosystems	Appendix 8.9: Preliminary Aquatic Ecology Appraisal (PW.3.3.9.8)	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-GG-001	Greenhouse Gases	The Detailed Design of the Padeswood Spur Pipeline Proposed Development will ensure the design is optimised, to avoid unnecessary permanent design aspects, and minimise material consumption and waste generation, as far as reasonably practicable	Design optimisation to reflect the carbon reduction hierarchy.	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design	
PW-GG-002	Greenhouse Gases	The Detailed Design of the Padeswood Spur Pipeline Proposed Development will use efficient construction processes, such as embracing design for manufacture and assembly, where practicable.	Design optimisation to reflect the carbon reduction hierarchy.	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design	
PW-GG-003	Greenhouse Gases	The Detailed Design of the Padeswood Spur Pipeline Proposed Development will aim to substitute-in and use alternative raw materials and resources, where practicable (for example, procuring steel with a higher-than-average recycled content).	Design optimisation to reflect the carbon reduction hierarchy.	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design	
PW-GG-004	Greenhouse Gases	The Construction Contractor should maximise the opportunity to use more sustainable materials and products with reduced embodied carbon emissions and materials/resources featuring recycled content (where safe and of sufficient integrity for engineering), eventually supported with eco and carbon labels or verified Environmental Product Declarations (EPD), are preferred.	Reduce embodied carbon emissions	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design/Construction	
PW-GG-005	Greenhouse Gases	Construction materials will be sourced from local suppliers and local waste disposal facilities will be used in the Flintshire region where practicable.	Reduce GHG resulting from transportation of materials	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Design/Construction	
PW-GG-006	Greenhouse Gases	The Construction Contractor shall avoid disposal of construction waste to landfill, maximising recycling, and reuse of waste where possible.	Reduce GHG resulting from disposal of materials	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Design/Construction	

PW-GG-007	Greenhouse Gases	The Construction Contractor shall use modern and efficient low emission construction plant and delivery vehicles, and/or those powered by electricity from alternative/lower carbon fuels. The Construction Contractor will ensure high performance of plant and equipment through correct and efficient operation, maintenance, and servicing of vehicle fleet to avoid polluting emissions.	Reduce GHG emissions associated with construction plant and equipment.	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-GG-008	Greenhouse Gases	Training policies and management protocols will be in place during site induction to avoid idling of engines, spills of fuels (for example when refuelling) and safe/environmentally sensitive driving techniques to maximise fuel saving.	Reduce GHG emissions associated with construction plant and equipment.	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-GG-009	Greenhouse Gases	The sustainability credentials of suppliers and companies in the supply chain will be considered as part of the procurement process.	Ensure sustainability of the supply chain	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Design/Construction	
PW-GG-010	Greenhouse Gases	Where practicable, innovative construction methods (for example, optimising gradients of haul and access roads/points) will be incorporated to reduce construction energy consumption, such as plant use and minimise the need for sharp acceleration and braking in order to save fuel.	Reduce construction energy consumption	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Design/Construction	
PW-GG-011	Greenhouse Gases	The design of the Padeswood Spur Pipeline Proposed Development will be undertaken with a view to maximising the operational lifespan and minimising the need for maintenance and refurbishment.	Reduce GHG emissions associated with the maintenance and refurbishment of the Padeswood Spur Pipeline Proposed Development	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design	
PW-GG-012	Greenhouse Gases	The Construction Contractor shall specify efficient mechanical and electrical equipment that is long-lasting and based on its durability, repairability and energy efficiency credentials.	Reduce GHG emissions from operational energy use	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design	
PW-GG-013	Greenhouse Gases	The requirement for venting shall be minimised where safe and practicable.	Reduce GHG emissions from venting	Chapter 10: Greenhouse Gases (PW.3.2.10) of the Environmental Statement	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Construction / Operation	
PW-LS-001	Land and Soils	Temporary installation or upgrade of existing access tracks for the Construction Compounds and work-fronts will be set up to minimise disruption and local environmental impacts to Land and Soils. Options will include (dependent on local ground conditions and other variables) provision of bog mats, compacted gravel tracks, proprietary aluminium trackways and asphalt or concrete sealed surfaces.	To minimise disruption and local environmental impacts to land and soil.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-002	Land and Soils	Materials excavated for the trenching work will be stockpiled adjacent to the works and reused locally during backfilling of the trenches and reinstatement, where suitable. Any topsoil or organic surface material will be stockpiled separately for re-use on completion of the works.	Reduce loss of site won material.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-003	Land and Soils	Agricultural soil will be suitably stored and re-used. The stripping of topsoil will be carried out with care to provide maximum protection for the soil structure (preventing topsoil and subsoil becoming mixed and avoiding soil contamination). Topsoil will be formed into bunds for temporary stockpiling. Movement on or any kind of compaction of the topsoil will be avoided. As far as practical, topsoil will be stored adjacent to the works and reused locally during post-construction reinstatement	Reduce adverse effects to agricultural soil quality.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-004	Land and Soils	The pipeline design will account for sulphate and pH concentrations within the soils	To prevent damage to Padeswood Spur Pipeline Proposed Development Infrastructure from aggressive ground conditions.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Design	
PW-LS-005	Land and Soils	A Material Management Plan (MMP) will be produced in accordance with CL:AIRE DoWCoP. The MMP will provide a clear, consistent and efficient process to enable the reuse of excavated material without it being classified as a waste and outline a cut / fill balance to reduce the amount of material permanently removed during the construction of the Padeswood Spur Pipeline Proposed Development.	Assure correct management of soils	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Design / Pre-Construction / Construction	
PW-LS-006	Land and Soils	If, during open trench construction and excavations, unexpected gross contamination is encountered, potential mitigation options including potentially lining the trench in order to inhibit water percolation and subsequent leachate generation will be considered.	Prevent pollution of Principal Aquifers in bedrock and Secondary A Aquifers in superficial deposits.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-007	Land and Soils	Measures contained within the detailed CEMP to resolve impacts to land and soil will include: •Using appropriate risk assessments and method statements (RAMS) •All site operatives should follow hygiene best practices and be provided with the correct PPE (e.g. safety glasses, gloves and face masks where applicable) or Respiratory Protective Equipment (RPE) (over and above the standard PPE) to reduce the risk of inhaling / ingesting / touching contaminated materials. •All site operatives will be made aware of the risks posed from ground conditions likely to be encountered during the construction, for example through toolbox talks before undertaking any works.	Protection of construction and maintenance workers from ingestion / inhalation / dermal contact with contaminated soils.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	

PW-LS-008	Land and Soils	<p>All site operatives will be fully trained and competent in their role. There will be a trained and responsible manager on site during construction works, including any movement of the stockpiles.</p> <p>•If unexpected visual and olfactory evidence of contamination is encountered an appropriately qualified environmental consultant will be asked to advise and if appropriate additional investigation and remediation would be undertaken in consultation with regulators.</p> <p>•If unexpected visual and olfactory evidence of contaminated is encountered the LPA and NRW would be notified, and any follow up investigation and remediation would be provided to them for review.</p>	Protection of construction and maintenance workers from ingestion / inhalation / dermal contact with contaminated soils.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-009	Land and Soils	In line with standard practice all excavations and trenches should undergo gas testing prior to entry. The Construction Contractor will be appropriately experienced and will be briefed in the expected and unknown ground conditions. The Construction Contractors ground workers will be appropriately trained to identify potential contamination. Should unexpected Made Ground or unexpected contaminated ground (i.e. visual or olfactory evidence of contamination) be encountered during the Construction Stage, a suitably qualified person will be employed by the Construction Contractor to advise on the appropriate course of action. Testing of Made Ground for a minimum of asbestos, metals, petroleum hydrocarbons and polyaromatic hydrocarbons to assess suitability for re-use and potential risks to construction works will be undertaken.	To mitigate unacceptable contaminated land related risks to the environment and construction workers and ensure works are legally compliant	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-010	Land and Soils	Ongoing monitoring and maintenance will be undertaken to ensure that any temporary or permanent drainage in the main works area is meeting its operational requirements. This will prevent surface runoff and/ or contamination from entering surface water or groundwater bodies and migrating. Appropriate measures and maintenance procedures will be detailed in the detailed CEMP. Emergency procedures will be in place should a leak of contamination i.e. from a drainage failure or machine tank, occur. These emergency procedures will be documented in the detailed CEMP. Should a leak or drainage failure occur the Qualified Person will be informed, and appropriate actions taken.	To limit contamination to groundwater and surface waterbodies.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-011	Land and Soils	Any concrete used in below ground infrastructure will be selected based on the appropriate sulphate classifications	To prevent damage to the Padeswood Spur Pipeline Infrastructure from aggressive ground conditions.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-012	Land and Soils	Any unexpected disused below ground tanks, structures and / or pipework/ services encountered during construction that cannot be avoided will be appropriately decommissioned and removed (where necessary) by an appropriately qualified person as appointed by the Construction Contractor	To ensure that contaminants do not enter the ground.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-013	Land and Soils	Should Asbestos Containing Material (ACM) be encountered during the construction, or soil testing indicate that asbestos fibres are present, the Qualified Person will be notified and appropriate actions taken.	To ensure that construction workers are not exposed to asbestos	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-014	Land and Soils	For excavation in areas of known Made Ground, the Qualified Person will supervise the excavation to observe for visual or olfactory evidence of contamination or ACM	To ensure that construction workers are not exposed to contamination or asbestos.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-015	Land and Soils	If, following the measures outlined in PW-LS-014, remediation is determined to be required, suitable remediation strategy will be produced. The remediation strategy will be approved by the Local Authority (FCC / NRW) prior to being implemented	To mitigate unacceptable contaminated land related risks.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-016	Land and Soils	Incidental extraction of mineral resources is considered likely to happen as part of installation of the pipeline. Sustainable re-use of extracted mineral resources should be conducted where possible	To mitigate against the sterilisation of mineral resources	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LS-017	Land and Soils	Prior to decommissioning, a Decommissioning Environmental Management Plan will be developed. Prior to development, consultation with relevant stakeholders will be undertaken. The approach/scope of the Decommissioning Environmental Management Plan will be agreed with the Local Authority prior to commencement.	To outline mitigation and manage risks during decommissioning of the Padeswood Spur Pipeline Proposed Development.	Chapter 11: Land and Soils (PW.3.2.11) of the Environmental Statement	The Applicant	CEMP approved by the Local Authority	Decommissioning	
PW-LV-001	Landscape and Visual	The detailed design alignment of the Padeswood Spur Pipeline will where reasonably practicable, be micro-sited to avoid areas of woodland (including but not limited to those included within the National Forest Inventory and Ancient Woodland Inventory).	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design	
PW-LV-002	Landscape and Visual	The detailed design alignment of the Padeswood Spur Pipeline will wherever practicable, be micro-sited to avoid removal of trees covered by Tree Preservation Orders; where these lie within or within close proximity to the Red Line Boundary	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design	
PW-LV-003	Landscape and Visual	The detailed design alignment of the Padeswood Spur Pipeline will wherever practicable, be micro-sited to avoid locally valued landscape features and existing visual screening including, but not limited to mature trees, woodland, hedgerows, and field drains, including root protection zones of existing mature trees	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design	
PW-LV-004	Landscape and Visual	The detailed design alignment of the Padeswood Spur Pipeline will wherever practicable, be micro-sited to utilise existing visual screening, through location in proximity (but to avoid damage) to existing vegetation and/or locally enclosed topography, such as valley bottoms or dips in localised undulations	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design	

PW-LV-005	Landscape and Visual	Temporary Construction compounds will, where reasonably practicable, be micro-sited to reduce proximity to residential properties, to minimise likely visibility and to avoid key landscape features	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design/Construction	
PW-LV-006	Landscape and Visual	Prior to the commencement of construction, during detailed design, the reinstatement of arable land, fenced boundaries, hedgerows and grassland upon completion of construction will be set out. This will include any protective fencing to areas of reinstatement that would typically remain in place to exclude livestock and allow establishment to take place.	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Design/Pre-Construction	
PW-LV-007	Landscape and Visual	Landscape Layouts for the pipeline route will be prepared. Indicative planting species and specification has been provided at the AGI as part of this EIA but a full planting schedule with plant numbers, spacing etc will be provided for the whole Padeswood Spur Pipeline Proposed Development at detailed design stage.	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design	
PW-LV-008	Landscape and Visual	Where the proposed route will extend through areas of tree/vegetation significant for screening, adjacent to the Padeswood Cement Works and proposed Padeswood AGI, appropriate root protection measures will be utilised to enable reinstatement of screen planting.	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Design/Construction	
PW-LV-009	Landscape and Visual	Where construction will impact road verges, these will be reinstated and, where appropriate and practicable, enhanced through the addition of species rich grass mixes or similar as appropriate for the benefit of biodiversity.	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Construction	
PW-LV-010	Landscape and Visual	During micro-siting of the pipeline route, further investigations will take place to ensure minimal tree loss takes place in areas where natural screening from hedgerow and linear belts of trees or woodland exist. This will be considered as part of decision making around the final alignment to avoid such loss.	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design	
PW-LV-011	Landscape and Visual	The detailed design stage could consider further utilisation of trenchless crossing methods to maintain views from recreational routes, such as Wat's Dyke Way National Trail, as well as vegetation associated with these features and/or roadside hedgerow. Any additional use of trenchless crossing method will consider the conclusions of the Environmental Statement, permit requirements and any other agreements to ensure that this would be acceptable.	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design	
PW-LV-012	Landscape and Visual	Land disturbed to make way for Construction that isn't then utilised as part of the Padeswood Spur Pipeline Proposed Development during operation will be reinstated and returned to original land uses following completion of the Construction Stage, including consideration of effects to existing land drainage and reinstatement of any existing drainage features.	To minimise landscape and visual impacts, restoring original landscape where possible.	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LV-013	Landscape and Visual	Where trees (stems) sit outside of the Red Line Boundary, but there is potential to impact, the Root Protection Areas (RPAs) of these trees will be retained and protected	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LV-014	Landscape and Visual	All ancient woodland areas will be protected. A 15 m works exclusion zone or similar approved by an Arboriculturist is assumed, except for environmental mitigation works, such as drainage works. It is noted that at Wared Wood an exclusion has been made to allow for access to construct the trenchless crossing (TRX-12). However, construction access will utilise an existing access through the woodland, to avoid vegetation clearance	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-LV-015	Landscape and Visual	Fences, kiosks and lighting columns associated with the AGI will be painted to a colour that fits the context in which they are located. This external finish paint colour will be subject to approval at Detailed Design stage with the precise shade specified at that time.	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design/Construction	
PW-LV-016	Landscape and Visual	Along the Padeswood Carbon Dioxide Spur Pipeline, where loss of hedgerow, tree or woodland is unavoidable and takes place as a result of construction works, the loss will be replaced on a like-for like basis, as close as practical to their original locations, which may be limited by pipeline easement requirements or offset requirements from services. This will be in accordance with United Kingdom Onshore Pipeline Operators' Association (UKOPA) Tree Planting Near High Pressure Pipelines guidance, as well as similar or any updated guidance notes for the relevant service provider as appropriate. Replacement planting will be undertaken in agreement with the Local Planning Authority	To minimise landscape and visual impacts, restoring original landscape where possible.	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design/Construction	
PW-LV-017	Landscape and Visual	During micro-siting of the pipeline route, further investigations will take place to ensure minimal tree loss takes place in areas where natural screening from hedgerow and linear belts of trees or woodland exist. This will be considered as part of decision making around the final alignment to avoid such loss.	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Design	
PW-LV-018	Landscape and Visual	Hedgerows, trees and woodland which are located between trenchless crossing entry/exit pits will be protected and retained	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Construction	
PW-LV-019	Landscape and Visual	Where new temporary construction accesses are required through existing hedgerows, the width to be lost will be kept to the minimum practicable and will not exceed 6m. Hedgerows, trees and woodland outside of this 6 m will be protected and retained. Protective measures will be detailed within a site specific Arboricultural Method Statement (AMS) and shown on a Tree Protection Plan (TPP) and where necessary, working methods will be monitored by a suitable Arboricultural Clerk of Works (ACoW).	To minimise landscape and visual impacts	Chapter 12: Landscape and Visual Amenity (PW.3.2.12) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design/Construction	
PW-LV-020	Landscape and Visual	The Arboricultural Method Statement (AMS) will be produced in line with the Outline AMS included in the Arboriculture Impact Assessment (Document Reference PW.3.3.9.1), and will address the following matters: •arboricultural site supervision; •tree works; •tree protection fencing; •ground protection; • requirement for Construction Exclusion Zones (CEZs) •additional precautions outside the CEZ; and •installation of underground apparatus and service runs.	To minimise landscape and visual impacts	Appendix 9.1 Arboriculture Impact Assessment (Document Reference PW.3.3.9.1)	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-MD-001	Major Accidents and Disasters	The Applicant and Construction Contractor will undertake a programme of hazard studies. Engineered and procedural controls (including prevention, detection control measures and systems to allow the safe isolation and shutdown of the pipeline system) will be developed and implemented to produce a safe design and to ensure residual risks are managed to be as low as reasonably practicable as required by health and safety legislative drivers.	To produce an inherently safe design and to ensure residual risks are managed to be as low as reasonably possible (ALARP).	Chapter 13: Major Accidents and Disasters (PW.3.2.13) of the Environmental Statement	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Design	
PW-MD-002	Major Accidents and Disasters	The Construction Stage of the Padeswood Spur Pipeline Proposed Development will be managed through the implementation of the Construction Phase Plan (required under the Construction (Design and Management) Regulations 2015).	To reduce the vulnerability of the Padeswood Spur Pipeline Proposed Development to the risk of MA&D events.	Chapter 13: Major Accidents and Disasters (PW.3.2.13) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-MD-003	Major Accidents and Disasters	All construction risks will be managed in accordance with the Construction (Design and Management) Health & Safety Plan and Construction Phase Plan.	To reduce the vulnerability of the Padeswood Spur Pipeline Proposed Development to the risk of MA&D events.	Chapter 13: Major Accidents and Disasters (PW.3.2.13) of the Environmental Statement	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Construction	

PW-MD-004	Major Accidents and Disasters	The Padeswood Spur Pipeline Proposed Development will be managed in accordance with supplier management environmental, health & safety standards (for example, Construction Skills Certification Scheme).	To reduce the vulnerability of the Padeswood Spur Pipeline Proposed Development to the risk of MA&D events.	Chapter 13: Major Accidents and Disasters (PW.3.2.13) of the Environmental Statement	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-MD-005	Major Accidents and Disasters	The Applicant and Construction Contractor will implement a risk management system.	To manage the risks related to MA&Ds.	Chapter 13: Major Accidents and Disasters (PW.3.2.13) of the Environmental Statement	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Design / Construction / Operation / Decommissioning	
PW-MD-006	Major Accidents and Disasters	The Construction Contractor will implement a Construction and Environmental Management system (including the CEMP).	To reduce the vulnerability of the Padeswood Spur Pipeline Proposed Development to the risk of MA&D events.	Chapter 13: Major Accidents and Disasters (PW.3.2.13) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-NV-001	Noise and Vibration	Construction works will be programmed to the following core hours: 8 am to 6 pm Monday to Friday (excluding bank holidays) and from 8 am to 1 pm on Saturdays. Any exceptions to this, such as for works associated with trenchless crossings or any other unexpected requirement to work outside of the core construction working hours, will be discussed and agreed prior to such works commencing with the Local Planning Authority's EHO (or equivalent position and/or further stakeholders as appropriate). This includes, where relevant, agreeing any additional noise mitigation with the EHO(s), and notifying local residents/communities of planned works outside of core construction hours prior to such works commencing.	To reduce the likelihood of noise and vibration disturbance.	Chapter 14: Noise and Vibration (PW.3.2.14) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-NV-002	Noise and Vibration	The Construction Contractor will nominate a Community Liaison Representative (or equivalent title) who will be a nominated competent site contact for whom the contact details will be shared with local residents and other third parties within close proximity to the construction works, and will be displayed clearly within the site compounds. The Community Liaison Representative will be responsible for engaging with any noise or vibration related matters raised by third parties.	To reduce the likelihood of noise and vibration disturbance and to manage impacts should they arise.	Chapter 14: Noise and Vibration (PW.3.2.14) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-NV-003	Noise and Vibration	Construction works will utilise low noise generating plant and equipment and will adopt methods which minimise noise and vibration, wherever practicable.	Best Practicable Means to minimise noise and vibration impacts.	Chapter 14: Noise and Vibration (PW.3.2.14) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-NV-004	Noise and Vibration	Where required, temporary acoustic barriers will be considered around significant noise producing plant that are in close proximity to sensitive receptors. The locations of these screens will be optimised for acoustic mitigation whilst considering other potential impacts. The location and design of the temporary acoustic barriers will be detailed in conjunction with the Landscape Architect to ensure impacts upon landscape character and visual amenity are avoided and do not give rise to increased levels of effect as reported in Chapter 12 of the ES. Particular consideration will be given to PRoW, residential receptors and ecological receptors (including those assessed within the HRA).	Best Practicable Means to minimise noise and vibration impacts.	Chapter 14: Noise and Vibration (PW.3.2.14) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-NV-005	Noise and Vibration	Optimal location(s) of all equipment with the potential to cause a significant effect on noise on site will be selected, if/where required to comply with FCC requirements, to minimise noise disturbance to local sensitive receptors.	Best Practicable Means to minimise noise and vibration impacts.	Chapter 14: Noise and Vibration (PW.3.2.14) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-NV-006	Noise and Vibration	Construction vehicles will, wherever practicable, be fitted with less intrusive warning alarms, such as broadband vehicle reversing warnings.	Best Practicable Means to minimise noise and vibration impacts.	Chapter 14: Noise and Vibration (PW.3.2.14) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-NV-007	Noise and Vibration	Temporary noise screening methods and management such as low noise equipment, hoarding etc as per agreement with the FCC EHO (or equivalent positions and/or further stakeholders as appropriate) should achieve a minimum attenuation of 10 dB(A) at all sensitive locations during construction where the noise impact in the ES and HRA were identified. During detailed design, the Construction Contractor will explore further attenuation opportunities to mitigate any residual impacts at all sensitive locations, where required.	Best Practicable Means to minimise noise and vibration impacts.	Chapter 14: Noise and Vibration (PW.3.2.14) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-NV-008	Noise and Vibration	Noise and vibration monitoring will be carried out during construction at a sample of locations representative of the nearest sensitive receptors to Padeswood Spur Pipeline Proposed Development. Particular focus will be given to receptors near trenchless crossing activities.	To enable implementation of further measures to mitigate noise and vibration impacts should this be required.	Chapter 14: Noise and Vibration (PW.3.2.14) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-NV-009	Noise and Vibration	During the Operational Stage, the noise levels of the equipment in the AGI will be limited to avoid the potential for adverse significant effects at the nearest noise sensitive receptors.	Best Practicable Means to minimise noise and vibration impacts.	Chapter 14: Noise and Vibration (PW.3.2.14) of the Environmental Statement	The Applicant	CEMP approved by the Local Authority	Operation	
PW-PH-001	Population and Human Health	Construction Compounds will be set out and managed to reduce impacts on access to / from private property and housing, and community facilities as far as practicable.	To minimise population and health impacts.	Chapter 15: Population and Human Health (PW.3.2.15) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority Approval of Detailed Design / construction in accordance with approved plans	Construction	
PW-PH-002	Population and Human Health	The public will be informed of the nature, timing and duration of particular construction activities and the duration of the construction works by newsletters, online updates, letter drops, information boards and details of key contacts, and liaison with the Applicant. The contractor would manage a 24-hour free telephone hotline and a project website.	To minimise population and health impacts.	Chapter 15: Population and Human Health (PW.3.2.15) of the Environmental Statement	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-PH-003	Population and Human Health	A stakeholder communications plan (that includes community engagement before work commences on site) will be implemented	To minimise population and health impacts.	Chapter 15: Population and Human Health (PW.3.2.15) of the Environmental Statement	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-PH-004	Population and Human Health	Temporary PROW closures and diversions to be managed in line with the Outline Public Right of Way Management Plan (Document Reference: PW.3.3.16.7) and OTCMP (Document Reference PW.4.2).	To minimise population and health impacts.	Chapter 15: Population and Human Health (PW.3.2.15) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-PH-005	Population and Human Health	Clear signage and directions for any alternative routes and appropriate alternative diversions will be provided and diversions clearly publicised to maintain access. Signage to advertise that businesses are open and operating as normal will also be provided where required.	To minimise population and health impacts.	Chapter 15: Population and Human Health (PW.3.2.15) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-PH-006	Population and Human Health	Community Facilities will be consulted prior to construction where access arrangements will be directly affected. Traffic management systems and diversion routes will be put in place to maintain access to identified community facilities.	To minimise population and health impacts.	Chapter 15: Population and Human Health (PW.3.2.15) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	

PW-TT-001	Traffic and Transport	<p>The Construction Contractor will produce a Construction Traffic Management Plan (CTMP), detailing the Traffic and Transport mitigation measures to be implemented throughout the Construction Stage. The CTMP will be submitted to FCC prior to construction of the Padeswood Spur Pipeline Proposed Development.</p> <p>The CTMP will follow the mitigation measures included within the Outline Construction Traffic Management Plan (OCTMP, Document Reference PW.4.2) and within the OEMP.</p>	<p>To achieve the following: Ensure movements of people, plant and materials are achieved in a safe, efficient, timely and sustainable manner; Ensure any impact to local communities and the local economy is reduced as far as reasonably practical; Ensure construction traffic levels do not exceed an acceptable level during network peak periods; Reduce and control construction vehicle trips where practical; Ensure that strategies and mitigation measures are implemented and adhered to through continued monitoring, review, and improvement; and Limit the effects of construction traffic on the local road network.</p>	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	<p>CTMP approved by the Local Authority</p> <p>CEMP approved by the Local Authority</p>	Construction	
PW-TT-002	Traffic and Transport	Final construction traffic routes will be selected to avoid sensitive receptors. Details of these routes will be provided within the CTMP.	To reduce, where possible, traffic effects on links that would be more sensitive to changes in traffic volumes.	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Construction	
PW-TT-003	Traffic and Transport	Careful consideration will be taken in relation to the siting of temporary access points during construction. Access points will require the incorporation of site-specific and appropriate visibility splays, turning radii and, where deemed necessary or appropriate, speed limit reductions. Temporary access locations should make use of existing accesses as far as practicable.	To reduce, where possible, traffic effects on links that would be more sensitive to changes in traffic volumes.	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Design/Construction	
PW-TT-004	Traffic and Transport	Temporary signs providing route information for contractors will be erected at key locations along the proposed construction traffic routes. Project information boards will be erected in multiple locations as appropriate to inform the public about temporary PRoW diversions and closures, site access points, Construction Traffic Routes and relevant contact details. The design and location of route information signs and Padeswood Spur Pipeline Proposed Development information boards will be agreed with FCC prior to installation. Signs will be bi-lingual, with messages written in Welsh and English (unless otherwise agreed with FCC).	To minimise disruption to existing transport links.	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Construction	
PW-TT-005	Traffic and Transport	Short-term closures of Padeswood Road South, Rose Lane, Bryn-y-Ball Road and Alltarni Road will be required to allow Non-Road Mobile Machinery movement for trenchless road crossings. The Construction Contractor will make arrangements for the marshalling of traffic for the duration of all short-term road closures.	To allow for safe access of Non-Road Mobile Machinery at trenchless road crossings	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Construction	
PW-TT-006	Traffic and Transport	Road closures will be required to facilitate open trench crossings. Road closures are anticipated to last a maximum of two weeks. Reinstatement of street works shall be completed in accordance with local regulations. The road closure and diversion arrangements shall be subject to landowner agreements. The crossings will preferably utilise existing gates where identified, however, new gates may be required to minimise duration of road closures.	To minimise disruption to existing transport links.	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Construction	
PW-TT-007	Traffic and Transport	Traffic marshalls and/or temporary signage to be provided at accesses with adjacent PROWs	To manage the movement of PROW users and to ensure they are accommodated safely	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority		
PW-TT-008	Traffic and Transport	The Construction Contractor shall implement a Travel Plan. The Travel Plan will include measures to reduce single occupancy car trips via a car sharing scheme and the use of minibuses to transport workers to compounds and access locations, where possible.	<p>Encourage sustainable travel behaviour; Reduce car usage (particularly single occupancy car journeys); Raise awareness of the sustainable transport measures serving the Site; and Minimise the impact of traffic on sensitive locations.</p>	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Construction	
PW-TT-009	Traffic and Transport	<p>The Construction Contractor shall produce and implement a Public Rights of Way Management Plan (PRoWMP). The PRoWMP will contain the following information to be approved by FCC for each PRoW:</p> <ul style="list-style-type: none">•Plans showing the relevant control measures;•Length (distance) of the closure;•Route, length and any surfacing proposals for diversions;•Details of any gates, stiles or similar features to be removed and reinstated on any PRoW;•Details of signage to be provided for diversions; and•The appropriate standards for reinstatement of the PRoW. <p>The PRoWMP shall be based on the Outline PRoW Management Plan (Document Reference: PW.3.3.16.7).</p>	To minimise impacts on Public Rights of Way.	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-TT-010	Traffic and Transport	Appropriate facilities will be installed at the Compound/AGI access locations to allow removal of debris from construction vehicles prior to use of the LRN/TRN	To reduce the risk of damage/dilapidation of the highway	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Construction	
PW-TT-011	Traffic and Transport	Delivery records will be kept, allowing vehicular activities to be recorded, monitored and managed through the construction of the Padeswood Spur Pipeline Proposed Development	To ensure compliance with the CTMP	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Construction	
PW-TT-012	Traffic and Transport	HGV traffic movement and timing restrictions, to be determined with agreement from FCC, will be implemented to mitigate potential traffic effects. This may include timing restriction on routes associated with school drop off and pick up times, within the AM and PM peak times and restrictions at certain locations to accommodate local special events	To reduce the effects of construction traffic on sensitive links or those with sensitive receptors such as school, or to minimise the impacts of construction traffic at junctions or links with capacity/ operational issues at specific times of the days.	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Design/Construction	
PW-TT-013	Traffic and Transport	HGVs will be the required Euro Class and should have additional cycle friendly measures such as cameras, full length door windows, blind spot warning systems and additional mirrors	Address risk associated with identified trend of cyclist and motorcyclists collision on construction traffic routes and minimise Padeswood Spur Pipeline Proposed Development impact on highways safety.	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Design/Construction	

PW-TT-014	Traffic and Transport	Suitably qualified personnel will be present at key locations and times during construction to guide traffic	Ensure safe access to working locations and for other road users	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Construction	
PW-TT-015	Traffic and Transport	A highway inspection, monitoring and repair strategy will be agreed in advance with FCC and the North and Mid Wales Trunk Road Agent	To reduce the risk of damage/dilapidation of the highway	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Design	
PW-TT-016	Traffic and Transport	The Construction Contractor will appoint a Traffic Safety and Control Officer (TSCO)	To ensure compliance with the CTMP	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Design/Construction	
PW-TT-017	Traffic and Transport	Special timing restrictions to be implemented on Bryn Lane for all construction traffic: •Between 08:00 and 09:00 (AM peak / school drop-off); •Between 15:00 and 16:00 (school pick-up); and •Between 17:00 and 18:00 (PM peak).	To avoid conflict between construction traffic, typical peak hour traffic and school pick-up and drop-off traffic	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Design/Construction	
PW-TT-018	Traffic and Transport	Where required, Temporary Traffic Regulation Orders will be introduced. This may include Speed Limits at Access Locations	Ensure safe access to working locations and for other road users as well as maintaining appropriate visibility splays.	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Construction	
PW-TT-019	Traffic and Transport	Should the Construction Contractor require the use of Abnormal Indivisible Loads, then specific access requirements, potential impacts, and associated mitigation will be assessed under separate cover by specialist AIL contractor.	To minimise disruption to, and ensure safety of, existing transport links.	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Construction	
PW-TT-020	Traffic and Transport	Communication channels between the Construction Contractor and Local Highway Authority will be maintained prior to and during the construction of the Padeswood Spur Pipeline Proposed Development. The Construction Contractor may for example have, but not be limited to, the following responsibilities: •Communicate, monitor and review the CTMP and its mitigation measures; •Ensure records of HGV movements are maintained and reported; •Be the first point of contact for the public, stakeholders, and contractors; •Hold regular update meetings with LHAs and relevant stakeholders; and •Record near misses, incidents, and hazards and resolve issues regarding stakeholders and the public.	To ensure that the objectives and mitigation measures which are set out in the final CTMP are met, implemented as appropriate and managed effectively	Chapter 16: Traffic and Transport (PW.3.2.16) of the Environmental Statement	Construction Contractor	CTMP approved by the Local Authority	Construction	
PW-WR-001	Water Resources and Flood Risk	The Padeswood AGI will be designed with a surface water drainage scheme complying with the local, regional and national requirements of the SUDS Approval Body (SAB)	To prevent increases in flood risk	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans	Design/Construction	
PW-WR-002	Water Resources and Flood Risk	Construction works will avoid the positioning of temporary material stockpiles and arisings near to watercourses and will ensure material stockpiles and arisings are located outside of the flood zone (where not benefitting from flood defences), where practicable. Temporary stockpiles will be located a minimum of 10 m from the top of bank of any watercourse, where practicable. Welfare facilities and stored equipment and materials to be located within the compounds so that areas of high flood risk are avoided. Where this is not achievable the contractor shall discuss the proposals with the LLFA and the NRW and ensure that the FRAP and the accompanying CEMP include measures and a method statement, including a Flood Action Plan, relevant to the prevention of pollution and increase in fluvial flood risk during the Construction Stage, in accordance with the LLFA and NRW's requirements.	To minimise the impacts on surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-003	Water Resources and Flood Risk	Construction works will ensure that a sufficient working area, as agreed by the Construction Contractor, is made available for effective sediment management for works within watercourses.	To minimise the impacts on surface water quality, groundwater and flood risk.	Appendix 17-3: WFD assessment (PW.3.3.17.3)	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-004	Water Resources and Flood Risk	Where necessary, temporary stockpiles will be protected by silt netting when not in use.	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-005	Water Resources and Flood Risk	Temporary drainage systems will be implemented near sensitive receptors to control surface water runoff, to alleviate both flood risk and help to prevent sediment laden runoff entering the watercourse.	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-WR-006	Water Resources and Flood Risk	Areas with a greater risk of spillage (for example, vehicle maintenance and storage areas for hazardous materials) will be carefully sited (for example, away from drains or areas where surface waters may pond) and on an impermeable surface.	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-007	Water Resources and Flood Risk	Emergency response plans will be developed, and spill kits made available on-site.	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-008	Water Resources and Flood Risk	Measures to be put in place to prevent pollution from construction plant, vehicles and machinery including: • Refuelling and lubricating will be supervised and conducted in designated areas, over an impermeable surface, with appropriate cut-off drainage located away from watercourses; • Plant to be maintained in a good condition with wheel washing in place (avoiding vehicle cleaning near to existing watercourses), all refuelling would be supervised and carried out in a designated area. • In the event of plant breakdown, drip trays would be used during any emergency maintenance and spill kits would be available on-site. • Construction plant will be checked regularly for oil and fuel leaks, particularly when construction works are undertaken in or near the existing waterbodies.	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	

PW-WR-009	Water Resources and Flood Risk	<p>Measures to be put in place to prevent pollution from spillage, including:</p> <ul style="list-style-type: none"> Fuels and potentially hazardous construction materials would be stored in bunds that have areas with external cut-off drainage; fuel would be stored in double skinned tanks with 110% capacity. all filling points, gauges, vents and sight glasses will be located within the bund. Associated pipework will be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets will be detailed to discharge downwards into the bund. Waste fuels and other fluid contaminants will be collected in leak-proof containers prior to removal from the construction area to an approved recycling processing facility. Oil absorbent booms will be made available at construction compounds and works areas and will be deployed as soon as possible in the event of a significant spillage. Measures implemented to control spillage or pollution risks for site runoff or works within watercourses will be regularly inspected to ensure they are working effectively. Avoid pumping or similar processes of concrete over or adjacent to open water where possible and such works will be closely observed to ensure the swift shut off of any pumps if a spillage occurs. 	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-010	Water Resources and Flood Risk	Concrete wash out will only take place at designated concrete washout areas.	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-011	Water Resources and Flood Risk	<p>Measures to be put in place to prevent sediment input into watercourses, including:</p> <ul style="list-style-type: none"> Surface water run-off and excavation dewatering will be captured and settled out prior to disposal where practicable. The Construction Contractor will ensure that any contaminants are to be suitably removed prior to disposal. Temporary cofferdams will be used to exclude work areas from the waterbodies, thus reducing the risk of increased sediment loads or hazardous substances entering the main water flow. Where works are within 10 m of watercourses, sediment barriers will be provided between earth works and the construction zone and the watercourse to prevent sediment from washing into the river. Silt management will be considered not only for areas adjacent to the watercourse, but also up the valley sides to minimise fine sediment input to the watercourse. Where practicable, there will be no works within 8m of watercourses. Silt fences, silt traps, filter bunds, settlement basins and/or proprietary units will be used to treat sediment laden water generated on-site before discharge. 	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-012	Water Resources and Flood Risk	Sewage generated from site welfare facilities will be disposed of appropriately. This may be by discharge to the foul sewer network or by collection in septic tank for disposal off-site.	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-013	Water Resources and Flood Risk	Works will be undertaken in compliance with the relevant sections of BS6031:2009 Code of Practice for Earthworks (British Standards, 2009) with respect to protection of water quality and control of Site drainage including washings, dewatering, abstractions, and surface water.	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-014	Water Resources and Flood Risk	<p>Where works are required on the watercourse banks, valley sides, riparian zone or in-channel, vegetation clearance will be restricted to the minimum required for the construction working area and should be undertaken only immediately prior to the commencement of those works, except for other circumstances where earlier clearance may be required due to the presence of protected species. A minimum of 8 m, vegetated buffer strip between the construction zone and the watercourse will be retained, wherever practicable.</p> <p>Vegetation should be re-established as soon as practicable. If necessary, and where practicable (e.g. where difficulties in planting and establishment of vegetation are likely to occur), additional measures such as geotextiles (biodegradable and non-biodegradable), willow whips, mulching, brushwood mattresses etc. will be used to protect soils before vegetation has re-established, particularly on the watercourse banks.</p>	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-015	Water Resources and Flood Risk	The watercourse will be temporarily blocked and pumped over where practicable whilst the temporary crossing is constructed.	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-016	Water Resources and Flood Risk	<p>A Groundwater Management and Monitoring Plan (GWMMP) will be implemented alongside a CEMP.</p> <p>The GWMMP will set out the monitoring requirements, establish a protocol for the assessment and response to monitoring data and provide methods to assess compliance with the conditions of development consents, environmental protection licences and legislation relating to groundwater and GWDTE. The GWMMP will consider: limits to the scale, depth and time of temporary dewatering by change of method or by division of works to reduce the zone of influence of dewatering; reduction in the use of construction methods with the potential to adversely affect aquifer physical properties such as consolidating; provision of (compensatory) discharges to Groundwater Dependant Terrestrial Ecosystems (GWDTEs) or use of water recycling during dewatering to support water level and flows where these may be reduced and provision of monitoring of water levels in nearby wells or surface water to enable/ identify further mitigation measures when needed.</p>	To set out the monitoring strategy of the shallow groundwater where any dewatering activities are proposed, and to ensure all groundwater abstracted through construction is appropriately managed.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-017	Water Resources and Flood Risk	A Dewatering Management Plan will be developed. The Dewatering Management Plan will provide a general framework for assessing the potential risks arising from dewatering. The Dewatering Management Plan will aim to keep the duration of pumping and the rates to a minimum which is achieved by minimising the required dewatering. The Dewatering Management Plan will summarise all licences and permits to abstract and discharge from dewatering works issued by Natural Resources Wales. In addition to permitting, the Dewatering Management Plan will include detailed description of the main discharge points, abstraction and discharge rates, equipment used and construction sequence, any authorisation and details of any pre-treatment required prior to discharge approved by Natural Resources Wales. Dewatering activities will be programmed for the summer months, wherever reasonably practicable, when groundwater levels are lower, in order to reduce the potential impact of local dewatering volumes The Dewatering Management Plan will also act as a vehicle for more specific and detailed assessment (as necessary).	To set out the dewatering strategy of groundwater where dewatering activities are proposed, and to ensure all groundwater abstracted through construction is appropriately managed	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-018	Water Resources and Flood Risk	A Surface Water Management and Monitoring Plan (SWMMP) will be developed. The SWMMP will provide a framework for assessing and managing surface water flood risks, provide strategies for mitigation, and outline actions to ensure sustainable water management practices	To set out the Surface Water management and monitoring strategy.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-019	Water Resources and Flood Risk	In areas of shallow groundwater, the use of temporary sheet-piles shall be considered as a hydraulic control measure to limit the ingress of water to the pipeline trench and act as mitigation to reduce the groundwater dewatering rate. If implemented sheet piles will then be removed as soon as practicable after their use.	To minimise the impacts of dewatering to groundwater receptors	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Construction	
PW-WR-020	Water Resources and Flood Risk	Construction works will seek to minimise the loss of groundwater quantity from the water environment. Where practicable, water recycling practices, including re-use of hydrotest water, will be considered.	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design / Construction	
PW-WR-021	Water Resources and Flood Risk	Trench breakers (clay plugs) will be placed at regular intervals along the Padeswood Spur Pipeline trench where required to avoid preferential flow pathways being created which could impact groundwater flows to receptors	To minimise the impacts of surface water quality, groundwater and flood risk.	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design / Construction	
PW-WR-022	Water Resources and Flood Risk	<p>A Flood Action Plan (FAP) will be developed and implemented for all Construction Compounds and the AGI. The FAP will contain procedures to minimise the risk to construction workers and the measures will be reflective of the flood risk of each area but will include as a minimum a requirement for:</p> <ul style="list-style-type: none"> Where applicable the Construction Contractor/s will sign up to flood warning service to obtain information related to the area of the Padeswood Spur Pipeline Proposed Development and will check online warnings regularly in areas at risk of fluvial/coastal flooding. Construction works will avoid working in the floodplain, where practicable Weather forecasts will be regularly monitored so to avoid working in peak flows or when flooding is possible. If a flood warning is received from NRW, move all machinery and equipment out of any undefended floodplain. If this cannot be completed in a safe time, secure equipment to prevent it being washed away. Evacuation procedures in case of expected flooding and/or when flooding is happening. 	Flood Risk Management	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Construction / Operation	
PW-WR-023	Water Resources and Flood Risk	The Construction Contractor and the Applicant will ensure that all construction and operation staff are made aware and trained in the procedures of the Flood Action Plans	Flood Risk Management	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	The Applicant / Construction Contractor	CEMP approved by the Local Authority	Construction / Operation	

PW-WR-024	Water Resources and Flood Risk	Surface water drainage solutions and discharge rates from the Central construction Compound will be discussed with the LLFA, where applicable.	Flood Risk Management	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-025	Water Resources and Flood Risk	Turbidity and oxygen monitoring to be undertaken during the Construction Stage where deemed required due to the sensitivity of aquatic species receptors. The need and frequency of turbidity and oxygen monitoring would be determined by the regulatory authority and detailed in any required permits for undertaking work within or near watercourses.	Water quality protection	Appendix 17-3: WFD assessment (PW.3.3.17.3)	Construction Contractor	CEMP approved by the Local Authority	Pre-Construction / Construction	
PW-WR-026	Water Resources and Flood Risk	A pre-works crossing point survey will be carried out to record channel and bank morphology and features, riparian zone structure, and collect photographic record, so that reinstatement is as close to baseline as practicable. Re-instatement works should be supervised by an appropriately qualified ECoW.	To minimise the impacts on surface water quality, groundwater, hydromorphology and flood risk	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-027	Water Resources and Flood Risk	A strategy for exceedance flows during pumping or pump malfunction will be implemented during peak flows. This will need to assess where the water would naturally flow in those instances and include appropriate control measures if a potential impact on third parties is possible e.g. in case of flows potentially affecting developed areas.	Flood risk management	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-028	Water Resources and Flood Risk	Maintenance vehicles will be equipped with a spill kit in case of emergency (if one is not already available on board these vehicles) and spill kits will be stored in the kiosks at the AGI.	To reduce the risk of spillage impacting water quality of surface water and groundwater receptors	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	The Applicant	CEMP approved by the Local Authority	Operation	
PW-WR-029	Water Resources and Flood Risk	Within construction compounds, the location of temporary structures and material shall avoid being sited in areas of medium or high surface water flood risk, as identified in the Flood Consequence Assessment (Document Reference PW.3.3.17.1).	To minimise risk of surface water flooding	Chapter 17: Water Resources and Flood Risk (PW.3.2.17) of the Environmental Statement	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-030	Water Resources and Flood Risk	Should there be a change to the design of TRX-07, resulting in pile driving activity in closer proximity to the River Alyn, then the need for precautionary mitigation will require further assessment and NRW should be consulted. Precautionary mitigation could include: • Restricting pile driving works within the period of 1 October to 31 May in compliance with the Salmon and Freshwater fisheries Act (1975); • Working outside of this period, pile driving should commence with a soft start, and thereafter proceed with either press or vibration pile driving methodologies. • If needed, percussion or hammer pile driving will be limited, within reason, to sink the piles to design depth.	To minimise disturbance to fish species	Appendix 17-3: WFD assessment (PW.3.3.17.3)	Construction Contractor	CEMP approved by the Local Authority	Construction	
PW-WR-031	Water Resources and Flood Risk	The Padeswood Spur Pipeline will be buried at least 2 m below the bed level of the Wepre Brook and Black Brook Tributary 2 for the whole width of the erodible corridor. The extent of the erodible corridor is provided in Annex E of the WFD Assessment (Document Reference PW.3.3.17.3).	To prevent alteration to flows, water quantity and/ or quality; and Loss of morphological diversity and habitat.	Appendix 17-3: WFD assessment (PW.3.3.17.3)	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design/Construction	
PW-WR-032	Water Resources and Flood Risk	The pipeline is to be buried to as shallow depth as safe and practical to do so under the Tributary to River Alyn 2, to reduce interaction with bedrock.	To prevent alteration to flows, water quantity and/ or quality; and Loss of morphological diversity and habitat.	Appendix 17-3: WFD assessment (PW.3.3.17.3)	Construction Contractor	CEMP approved by the Local Authority	Design/Construction	
PW-WR-033	Water Resources and Flood Risk	The equipment and kiosk at Padeswood AGI will stand on plinths, raised a minimum of 200 mm above proposed working platform elevation	To reduce the likelihood of flooding	Appendix 17-1: Flood Consequence Assessment (PW.3.3.17.1)	Construction Contractor	Approval of Detailed Design / construction in accordance with approved plans CEMP approved by the Local Authority	Design/Construction	