Appendix A6.2: Environmental Management Plan (Design Stage)

1.1 Introduction and background to the proposed scheme

Purpose of the Environmental Management Plan

1.1.1 In accordance with Design Manual for Roads and Bridges (DMRB) LA 120 'Environmental management plans' (Highways England et al. 2020a) (hereafter referred to as DMRB LA 120), an Environmental Management Plan (EMP) has been produced as an appendix to the Environmental Impact Assessment Report (EIAR) for the A9 Dualling Pass of Birnam to Tay Crossing project (hereafter referred to as the proposed scheme). The EMP 'shall set out the conclusions and the actions needed to manage environmental effects identified within the environmental assessment during construction and operation of a development' (Highways England et al. 2020).

1.1.2 DMRB LA 120 stipulates that an EMP shall be produced at the design stage of the proposed scheme, and refined and updated in advance of construction, and at the end of construction to support future management and operation. For the purposes of this report and to reflect the current design stage, the EMP is referred to as the Design Stage Environmental Management Plan (EMP).

1.1.3 This Design Stage EMP has been developed during the design stage of the proposed scheme. It is a requirement of DMRB LA 120 that a second iteration (construction stage) EMP will be further developed by the Contractor prior to and during construction with a third iteration (end of construction stage) developed by the Contractor post-construction. The end of construction stage EMP will be provided to the Overseeing Organisation for future management and operation.

The Project and A9 Dualling Objectives

1.1.4 The A9 dualling programme will upgrade 83 miles (133 kilometres) of road from single to dual carriageway. Transport Scotland's £3.7 billion (at April 2023 prices) programme is designed to deliver improved road safety and economic growth and the programme objectives are:

- Improve the operational performance of the A9 by reducing journey times and improving journey time reliability.
- Improve safety for motorised and non-motorised users by reducing accident severity and reducing driver stress.
- Facilitate active travel within the corridor.
- Improve integration with public transport facilities.

1.1.5 The programme requires dualling 11 sections. In December 2023, a delivery plan for completion of A9 Dualling was announced in the Scottish Parliament. The delivery plan uses a combination of design and build contracts and, subject to ongoing due diligence and further decision making in late 2025, Mutual Investment Model contracts (a type of public-private partnership contract) to complete A9 Dualling.

1.1.6 The Pass of Birnam to Tay Cross in project is one of four design and build contracts and involves upgrading 8.4km to dual carriageway. The proposed scheme also incorporates the following features which are described in Chapter 6 (The Proposed Scheme) and identified on Figure 6.1:

- two grade separated junctions with full movements at Murthly Estate and Dalguise;
- one grade separated junction with restricted movements at Birnam;
- one at-grade roundabout at Dunkeld;
- one pedestrian underpass connecting Dunkeld & Birnam Station to the replacement car park in Birnam;
- revisions to local access; and
- upgrade to existing road drainage and treatment.

Environmental Context and Constraints

1.1.7 The proposed scheme is located within Perth & Kinross, passing the settlements of Birnam, Dunkeld and Inver. The proposed scheme adjoins the already constructed Luncarty to Pass of Birnam section of the A9 Dualling to the south and the Tay Crossing to Ballinluig section to the north.

1.1.8 The proposed scheme is runs parallel to the River Tay Special Area of Conservation (SAC) and habitat designated on the Ancient Woodland Inventory (AWI).

1.1.9 The water environment in the vicinity of the proposed scheme is characterised by the River Tay, Inchewan Burn and River Braan, the latter also part of the River Tay SAC. Current treatment of road runoff from the existing A9 carriageway is generally limited to kerb and gullies type drainage which discharge untreated road runoff to the nearest water body.

1.1.10 There are a large number of paths in the local area, including core paths and public rights of way providing links between the settlements of Birnam, Dunkeld and Inver for walkers, wheelers and cyclists. The path network also provides access to outdoor areas including walks along the River Tay and to outdoor areas such as Birnam Hill.

1.1.11 The National Cycle Route 77 (NCN 77) also runs parallel to the existing A9 between Pass of Birnam and Dunkeld.

1.1.12 There are several cultural heritage features and designations in the wider area, including Inventory Garden and Designed Landscapes, historic buildings and conservation areas. Notable features include:

- Murthly Castle Garden and Designed Landscape;
- The Hermitage Garden and Designed Landscape;
- Dunkeld House Garden and Designed landscape;
- Dunkeld & Birnam Station including footbridge Category A Listed Building (LB11139);
- Birnam Conservation Area; and

- Dunkeld Conservation Area.

1.1.13 The predominant land use surrounding the proposed scheme is woodland interspersed with agricultural fields. The Highland Main Line railway runs parallel to the proposed scheme with Dunkeld & Birnam Station located at Birnam. There are commercial/industrial units at Birnam Industrial Estate. Residential properties are located immediately adjacent to the proposed scheme at Birnam and at Inver.

1.1.14 The location of the proposed scheme in relation to the local area and key environmental constraints are shown on Figure 6.1 of the EIAR.

1.2 Project Team Roles and Responsibilities

Roles and Organisations Involved in the Delivery of the Design Stage EMP

1.2.1 Transport Scotland will be responsible for overseeing management of the proposed scheme construction phase. Some of the site supervision roles involved in the delivery of the Design Stage EMP mitigation, such as the Environmental Coordinator and associated specialists (as listed in Table A6.2-1) who may supervise, monitor or check the Contractor's Environmental Method Statements, Management Plans and working methods, will be delegated where required by the Contractor.

1.2.2 The Contractor will be responsible for the construction phase of the proposed scheme, including the appointment and management of any subcontractors. They will be appointed in writing by Transport Scotland to plan, manage, monitor and coordinate health and safety during this phase. The Contractor would also be responsible for overseeing environmental management on site, preparing a second iteration (construction stage) EMP to cover the construction of the proposed scheme and then preparing a third iteration (end of construction stage) EMP to be provided to Transport Scotland for monitoring during operation, as appropriate. The Contractor will be required to delegate responsibilities to suitably experienced onsite personnel within the key areas of the site and these will be responsible for implementation, reporting and monitoring of environment mitigation during the contract period.

1.2.3 A summary of key personnel and a summary of their anticipated responsibilities are provided in Table A6.2-1. In addition, the delegation of responsibilities will be clearly identified within relevant project documents and site files. The Contractor is required to keep a record of competent expert statements including contact details and lines of escalation for personnel involved in the implementation, reporting and monitoring of the environmental mitigation required through this Design Stage EMP, including the organisations described in Table A6.2-1.

Table A6.2-1: Key Project Organisations and Associated Responsibilities

Role	Organisation	Responsibility
Project Manager	Transport Scotland	Overseeing and monitoring the implementation of whole proposed scheme including the individual's responsibilities detailed below.
Environmental Coordinator	Appointed by Transport Scotland or the Contractor	▪ Managing and supervising the Contractors' environmental specialists including the Environmental Clerk of Works (EnvCoW)(s), Ecological Clerk of Works (ECoW), Geological Clerk of Works (GeoCoW) and Hydrological Clerk of Works (HCoW) and other environmental specialists as required. ▪ Ensuring the responsibilities and requirements of specialists (as summarised in this table and detailed in Table A6.2-3) are adhered to. ▪ Overseeing the environmental components of the project. ▪ Monitoring the implementation of mitigation measures and the overall implementation of the Design Stage EMP. ▪ Monitoring compliance with the environmental requirements of the Contract, Works Information and the Design Stage EMP.
Environmental Clerk of Works (EnvCoW)(s)/ Environmental Specialists as required	Appointed by the Contractor	▪ Delivering specific environmental mitigation as detailed in Table A6.2-3. ▪ Providing site inductions on environmental practices, conducting tool box talks, specialist surveys and overseeing monitoring activities as required. ▪ Undertaking day to day monitoring and compliance checks. ▪ Monitoring environmental compliance and good practice on site. ▪ Monitoring implementation of the mitigation measures identified in Table A6.2-3 (e.g. compliance with CAR licences, etc.). ▪ Maintaining and updating site specific method statements. ▪ Coordinating with other specialists and liaising with the Local Authority and relevant stakeholders to agree working hours, discuss working methods and secure formal consents where required (see Table A6.2-4).

Role	Organisation	Responsibility
		▪ Auditing the Contractor's Site Environmental Management Plans and Programmes and ensuring compliance. ▪ Reviewing and maintaining awareness of the requirements of key legislation, policies, and strategies prior to and during construction. ▪ Prior to construction, the EnvCoW will ensure pre-construction environmental surveys are undertaken and any advanced environmental mitigation measures required are implemented.
Ecological Clerk of Works (ECoW)	Appointed by the Contractor	▪ Prior to construction, the ECoW will ensure pre-construction ecological surveys are undertaken and any advanced ecological mitigation measures required are implemented. ▪ Ensuring the implementation of the Ecological Management Plan. ▪ Providing ecological advice over the entire construction programme. ▪ Ensuring mitigation measures are implemented to avoid and reduce impacts on ecological features. ▪ Monitoring the implementation of mitigation measures during the construction phase to ensure compliance with protected species legislation and commitments within the EIAR.
Geological Clerk of Works (GeoCoW)	Appointed by the Contractor	▪ Overseeing in-stream construction works. ▪ Providing input on any further refinement of the design and supervising construction/modification to ensure no significant impacts on the water environment.
Hydrological Clerk of Works (HCoW)	Appointed by the Contractor	▪ Monitoring compliance with the Flood Response Plan. ▪ Monitoring of the implementation of the temporary SuDS to treat and attenuate construction site runoff.
Employer’s Ecologist	Transport Scotland	▪ Supervising the Contractor's ECoW to ensure compliance with specific mitigation (as detailed in Table A6.2-3). ▪ To confirm the scope of and ensure pre-construction surveys are undertaken and any advance mitigation measures required are implemented.

Role	Organisation	Responsibility
Community Liaison Officer	Appointed by the Contractor	▪ Providing consultation and engagement with all relevant parties including site personnel, Transport Scotland, relevant local authorities; other statutory bodies and regulatory authorities, relevant community groups; and businesses and residents in local communities affected by the construction works. ▪ Notify occupiers of nearby properties of the nature and anticipated duration of planned construction works that may affect them. ▪ Support the production of project communications such as the project website and newsletters. ▪ Establish a dedicated freephone telephone helpline, together with a dedicated email address and postal address, for enquiries and complaints during the construction phase. The relevant contact numbers, email and postal addresses will, as a minimum, be displayed on signs around the construction site and will be published on the project website. Enquiries and complaints will be logged by the Community Liaison Officer in a register and appropriate action will be taken in response to any complaints.

1.2.4 Further information on the key project roles and environmental responsibilities are detailed in the Record of Environmental Actions and Commitments (Table A6.2-3). These will be reviewed and agreed with Transport Scotland and the Contractor in subsequent stages of project development. Individual names and contact details will be confirmed, and the Design Stage EMP updated where applicable by Transport Scotland and the Contractor prior to the commencement of construction.

1.3 Environmental Actions and Commitments

Record of Environmental Actions and Commitments

1.3.1 The Record of Environmental Actions and Commitments (REAC) (refer to Table A6.2-3) identifies the environmental commitments made during the design stage to address the potential environmental effects of the proposed scheme. The environmental commitments, including the assumptions and reasoning for which the actions are based and the relevant legislation which governs them, are provided in the technical chapters of the EIAR. Table A6.2-2 provides the EIAR chapter numbers which relate to the mitigation item codes used in the REAC e.g. Mitigation Item 1 for Air Quality is referred to as AQ1.

Table A6.2-2: Mitigation Item References

Chapter Number	Chapter title	Mitigation item reference
8	Air Quality	AQ
9	Cultural Heritage	CH
10	Landscape	LV
11	Visual	LV
12	Biodiversity	B
13	Geology and Soils	G
14	Material Assets and Waste	M
15	Noise and Vibration	NV
16	Population – Land Use	LU
17	Population – Accessibility	A
18	Human Health	HH
19	Road Drainage and the Water Environment	W
20	Climate	C

1.3.2 Chapter 22 (Schedule of Environmental Commitments) of the EIAR collates the environmental mitigation from the technical chapters, as well as embedded mitigation, standard mitigation and mitigation for environmental topic areas which were scoped out of the assessment.

1.3.3 The REAC will be updated as the project progresses and will be finalised at the end of construction upon completion of the proposed scheme. Post construction, the end of construction stage EMP will be provided to Transport Scotland for the future maintenance and operation of the proposed scheme.

1.3.4 The REAC states at which stage of the project the environmental mitigation commitment is aligned to. For clarity, pre-construction works include advance works (including service diversions and some environmental mitigation) and site mobilisation (i.e. the establishment of the construction site). The overall construction period is expected to have a duration of 3 - 4 years. The Contractor is responsible for monitoring and managing change, e.g. a change in programme and associated seasonal restrictions, and should update Annex E (Copy of Evaluation of Change Register) as appropriate.

1.3.5 The REAC requires the Contractor to produce and develop multiple Environmental Management Plans and Method Statements. These will be produced pre-construction and updated and refined through construction as appropriate. Annex B (Relevant Management Plans) and Annex C (Environmental Method Statements) have been provided as placeholders for the Contractor to populate and they list the management plans and method statements that are required as mitigation through the REAC.

1.3.6 The Contractor is required to monitor the achievement of environmental mitigation and should develop achievement criteria as well as utilising the Completion Record column of the REAC. Risks associated with non-compliance of the environmental commitments outlined in the REAC will be managed by the Contractor and recorded in the Risk Register (refer to Annex G).

Table A6.2-3: Record of Environmental Actions and Commitments

[Note: Contractor to update as required based on Chapter 22 (Schedule of Environmental Commitments) and note requirement to include measures embedded in the scheme design]

1.4 Consents and Permissions

1.4.1 The Contractor will be required to comply with the conditions of all permits, consents and licences obtained during the construction phase. Table A6.2-4 outlines the anticipated consents and licences, including the party responsible for obtaining the licences, and this list will be reviewed and updated by the Contractor, as required, throughout the various stages of the proposed scheme.

[Note: Examples only provided and Contractor to update as required]

Table A6.2-4: Required consents and licences

Consent/ Licence Required	Relevant Legislation	Description	Relevant Mitigation Item	Timing	Party Responsible for Obtaining
Protected Species Licence: Potential licences required in respect of works necessary to construct proposed scheme	Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland)	Licences in respect of works necessary to construct the proposed scheme that are likely to breach applicable conservation legislation will be obtained. The Contractor will comply with the requirements or conditions of any granted licence. Licensing may be for the UK and/or European Protected Species. Supporting Species Protection Plans and Habitat Management Plans will also be necessary.	**B**	Pre-construction and Construction	Contractor
CAR Licence	The Water Environment (Controlled Activities) (Scotland) Regulations	A CAR licence is required for any new or changes to existing engineering structures. The CAR Licence will be approved by SEPA and conditions therein adhered to.	**E** **W**	Pre-construction and Construction	Contractor

Consent/ Licence Required	Relevant Legislation	Description	Relevant Mitigation Item	Timing	Party Responsible for Obtaining
	2011 (as amended) (CAR)	A Flood Response Plan and Pollution Incident Response Plan will be required.	**W** **G**	Pre-construction and Construction	Contractor
		A CAR licence may be required for the discharge of abstracted groundwater and standing water within excavations during construction. The CAR Licence will be approved by SEPA and conditions therein adhered to.	**G**	Pre-construction and Construction	Contractor
Pollution Prevention and Control (PPC) Permit	Pollution Prevention and Control (Scotland) Regulations 2012	Dependent upon the waste management activity a PPC permit may also be required.	**M**	Pre-construction and Construction	Contractor

1.5 Environmental and Engineering Asset Data

Environmental Asset Data

1.5.1 The collection and reporting of environmental data are an ongoing process. At this stage of the project, i.e. design, the collection and reporting of environmental data will be achieved through the publication of the EIAR. Where further additional environmental data is expected to be required during the pre-construction and construction phases, the Contractor is responsible for collating and submitting this data to Transport Scotland and any relevant stakeholders. During these stages, the Contractor should update this section of the Design Stage EMP to detail the submission arrangements of data.

1.5.2 Table A6.2-5 summarises the ecology surveys undertaken during the EIA process. Further information on these surveys is available in Chapter 12 (Biodiversity) and associated appendices and figures of the EIAR.

Table A6.2-5: Biodiversity Surveys

Biodiversity Resource	Survey Date Ranges	Study Area	Survey Methods
Aquatic Resources			
Fish surveys	2015 February and September 2016 August 2018 August and October 2019-2020 October – January 2022 March and May 2024 April	Water features within 500m	▪ Aquatic habitat visual assessment (including fish habitat suitability and targeted salmonid redd spawning surveys). ▪ Targeted salmonid redd spawning surveys at Inchewan Burn. ▪ Juvenile lamprey (ammocoete) habitat assessment.
FWPM	2016 June 2019 July 2020 September	Up to 600m on River Tay, River Braan and Inchewan Burn	▪ Surveys to identify presence/absence of FWPM and habitat suitability were undertaken at all accessible locations on the River Tay, River Braan and Inchewan Burn (up to 600m) adjacent to crossing points and proposed outfall locations.

Biodiversity Resource	Survey Date Ranges	Study Area	Survey Methods
Macro-invertebrates	2021 June 2021 November	River Tay, River Braan, Inchewan Burn and Mill Stream	▪ Targeted macroinvertebrate kick-sampling on River Tay, River Braan, Inchewan Burn and Mill Stream.
Terrestrial Resources			
Badger	2015 January – October 2018 December 2020 February – March 2021 November – December 2024 October *In addition, data collected/validated during other surveys throughout 2022-2025.	250m	▪ Presence/likely absence surveys. ▪ Targeted surveys to validate baseline and update activity status at known setts in 2024.
Bats - activity surveys	2018 July – August 2019 April – May 2020 August – October 2021 June – August	50m	▪ Crossing point surveys. ▪ Active transect surveys. ▪ Passive transect surveys.
Bats - roost surveys	2015 February – May 2018-2019 August – February 2020 May 2021-2022 June – February 2022-2023 May – February 2024 May – October	50m for PRAs 30m for all other surveys	▪ Potential roost assessments (PRA) of all buildings, structures and trees within 50m of the proposed scheme. ▪ Dusk emergence and dawn re-entry surveys of suitable trees within 30m of the proposed scheme. ▪ Aerial inspection of trees within 30m of the proposed scheme. ▪ Dusk emergence or dawn re-entry roost surveys of suitable buildings and structures up to 30m of the proposed scheme. ▪ Winter hibernation inspections (WHIs) of suitable buildings or structures up to 30m of the

Biodiversity Resource	Survey Date Ranges	Study Area	Survey Methods
			proposed scheme, including use of static bat detectors. ▪ DNA analysis of bat dropping samples collected on aforementioned surveys.
Beaver (*Castor fiber*)	2018 September – December 2021 October - November 2022 July – August 2024 April 2024-2025 October – January	200m	▪ Presence/likely absence surveys. ▪ Targeted infra-red trigger camera traps in 2024.
Birds - breeding birds	2019 April – June 2022 April – May	150m	▪ Breeding bird surveys (an adapted Common Birds Census with some elements of the Breeding Bird Survey (BBS)) (Bibby et al., 2000; Gilbert et al., 2012).
Birds - Schedule 1	2019 April – August, December 2020 January – February 2020 March 2022 February, March – August 2023 February, June, July 2024 February, June, July	500m	▪ Targeted walkover and vantage point surveys to record breeding by Schedule 1 bird species focussing on crossbills (*Loxia spp.*), kingfisher (*Alcedo atthis*), barn owl (*Tyto alba*) and raptors.
Habitats	2021 June – October 2022 May – June 2024 August 2024 October 2025 April – May	Footprint of the proposed scheme and 'off-site' areas (Muir of Thorn and Gelly Wood)	▪ UKHab classification surveys.
Otter (*Lutra lutra*)	2015 February – September 2016 February – March	200m	▪ Presence/likely absence surveys.

Biodiversity Resource	Survey Date Ranges	Study Area	Survey Methods
	2018 September – December 2019 February – September 2021 October – November 2024 April 2024-2025 October – January *In addition, data collected/validated during other surveys throughout 2022-2025.		▪ Targeted infra-red trigger camera traps in 2024.
Pine marten (*Martes martes*)	2020 February – March *In addition, data collected/validated during other surveys throughout 2022-2025.	250m	▪ Presence/likely absence surveys.
Red squirrel (*Sciurus vulgaris*)	2018 September – October 2020 February - March *In addition, data collected/validated during other surveys throughout 2022-2025.	50m	▪ Presence/likely absence surveys.
Reptiles	2015 May – September 2018 August – October 2019 March – April 2023 September 2024 April – October	Footprint of the proposed scheme	▪ Habitat suitability assessment. ▪ Presence/likely absence surveys using artificial cover objects in suitable habitats.
Water vole (*Arvicola amphibius*)	2015 February – September 2016 February – March 2018 September – December 2019 February – September 2021 October – November	100m	▪ Presence/likely absence surveys and habitat suitability assessment.

Biodiversity Resource	Survey Date Ranges	Study Area	Survey Methods
	*In addition, data collected/validated during other surveys throughout 2022-2025.		

Engineering Asset Data

1.5.3 It is anticipated that the proposed scheme would be procured by means of a Design and Build (D&B) type contract. Under the terms of this contract type, the Contractor will undertake both the detailed design and construction of the proposed scheme. Engineering data, including design drawings, used in the EIAR will be made available to the tenderers and/or the appointed Contractor as appropriate.

1.5.4 Under the D&B type contract, a specimen (outline) design is prepared for the proposed scheme, which the appointed Contractor(s) can optimise as the detailed design is developed. As such, the Contractor would be required to submit detailed design drawings for the works and as-built drawings on completion to Transport Scotland as required.

[Note: Contractor to update as required]

1.6 Monitoring and Maintenance Requirements

1.6.1 Monitoring will be required to maintain an audit trail of the environmental obligations of the proposed scheme.

Monitoring of Proposed Mitigation

1.6.2 The Contractor will be responsible for implementing and, where appropriate monitoring, the mitigation measures outlined in Table A6.2-3.

1.6.3 As described in Table A6.2-1 and Table A6.2-3, the Contractor's compliance with specific mitigation measures will be monitored through a number of different means. Monitoring of compliance and ensuring construction activities are carried out in such a manner to reduce environmental impacts may be conducted by an Environmental Clerk of Works (EnvCoW), Ecological Clerk of Works (ECoW), Geological Clerk of Works (GeoCoW), Hydrological Clerk of Works (HCoW) or an ecologist appointed by Transport Scotland. The specific measures these representatives may take in order to provide this monitoring of compliance will be detailed in the Contract Scope. In addition, site visits from environmental regulators such as SEPA are likely to monitor compliance of pollution prevention mitigation and any licence conditions.

1.6.4 The Contractor will keep a record of environmental mitigation monitoring and any potential areas of non-compliance as well as completing a final environmental investigation. The Contractor should record this monitoring by updating Annex F (Final Environmental Investigation and Monitoring Reports) of this Design Stage EMP as appropriate.

Environmental Management Plans

1.6.5 The Contractor will be required to provide environmental management plans which inherently require monitoring of environmental data and the interaction with construction activities. Annex B (Relevant Management Plans) provides a list of some of the environmental management plans that are likely to be required as part of the proposed scheme works. The Contractor will monitor compliance using these management plans and should update this annex with the plans as appropriate.

1.6.6 The Contractor is required to follow the guidance contained in all management plans and update the management plans where appropriate.

Maintenance Requirements

1.6.7 The Contractor will be required to maintain environmental features and engineering assets within the boundaries of the site during construction. This will include maintenance of mitigation measures, such as planted woodland and grassland. Through undertaking scheduled monitoring and reporting of said monitoring during construction, maintenance works will be identified, such as replacement of failed plants, to ensure the mitigation is effective.

1.7 Induction, Training and Briefing Procedures for Staff

Introduction

1.7.1 Table A6.2-6 identifies an indicative programme of training on environmental issues relevant to the proposed scheme that have been identified for delivery prior to and during the construction stage. On commencement of site mobilisation, the Contractor will be responsible for site inductions and training of all personnel on the site, whether visitors, full time staff or subcontractors.

1.7.2 All individuals working on or visiting the site will be required to attend the Contractor's site-specific induction. Those participating in or near to specific activities that have an environmental impact will be required to attend additional training led by the Contractor or appointed specialists, on ecology, pollution control, waste management and emergency procedures for minor and major incidents etc. The Contractor should update Annex D (Emergency Procedures and Record of Any Environmental Incidents) with emergency procedure guidance and with a record of incidents.

1.7.3 Toolbox talks will be posted within common use areas such as welfare units areas. Key environmental issues linked to the programme will be targeted on the daily notice board as a reminder to all staff on site, e.g. seasonal environmental constraints such as bird nesting seasons.

1.7.4 The list of training provided in Table A6.2-6 is not exhaustive, and the Contractor or an appointed specialist on site must highlight requirements for additional training as the project progresses to improve and add value to the overall site environmental awareness and compliance. It is a requirement for the site to maintain the standard of environmental management and minimise risks that could have an adverse impact on the environment. The Contractor must keep a record of training for audit and monitoring purposes.

1.7.5 Any additional induction and training requirements should be inserted in Table A6.2-6 by the Contractor as they are identified during construction of the proposed scheme.

[Note: Contractor to update as required]

Table A6.2-6: Indicative Training Programme

Topic	Personnel	Delivery	Description
Site Safety Induction and Environmental Awareness	All	Site induction	The following list is not exhaustive, but environmental training at induction is likely to include: ▪ company/project environmental policy; ▪ site environment; ▪ fuel containment; ▪ earthworks and excavations (risk of exposing contamination); ▪ pollution protocol and measures (e.g. use of spill kits); ▪ defined materials storage area (excavated and imported); ▪ defined waste areas (domestic and construction materials); ▪ wheel wash and road sweeping; ▪ dust and emissions control; ▪ noise and vibration control; ▪ site traffic protocols and routes in the form of a TMP (including haul routes and staff travel to site plan); ▪ warning signs; ▪ site inspection and monitoring forms; ▪ material procurement; ▪ toolbox talks where relevant to specific works; ▪ communication systems on site (e.g. dealing with the public, incident and near miss reporting, environmental observations and suggestions etc.); ▪ site organisation, key personnel responsibilities and contact details;

Topic	Personnel	Delivery	Description
			▪ emergency response plan(s) for addressing safety and environmental issues; ▪ contamination risk assessment; and ▪ update and maintain site specific toolbox talks or advisory sheets relevant to the proposed scheme.
Ecological toolbox talk	All	Site induction	A toolbox talk, covering all ecological receptors and associated legal compliance, will be delivered to site personnel prior to works commencing.
Noise and vibration toolbox talk	All	Site induction	A toolbox talk, on best practice construction methods including those relating to noise and vibration control e.g. by employing techniques to keep site noise to a minimum, will be delivered to all site workers prior to working on the construction site.

Environmental Competencies

1.7.6 The Contractor shall ensure all personnel conducting environmental tasks are suitably qualified or experienced for the roles and responsibilities they are employed to undertake.

1.7.7 The Contractor will monitor and record that all staff have attended the relevant environmental induction or training as listed above (including updated or new training) prior to undertaking any activities on site. The Contractor is required to develop criteria for evaluating the effectiveness of any training.

1.8 References and Glossary

Documents and Reports

Construction Industry Research and Information Association (CIRIA) (2015). C753: The Sustainable Drainage System (SuDS) Manual.

Highways England, Transport Scotland, Welsh Government, Department for Infrastructure Northern Ireland (2019). Design Manual for Roads and Bridges (DMRB): Sustainability & Environment. GG 103 'Introduction and general requirements for sustainable development and design. (Revision 0).

Highways England, Transport Scotland, Welsh Government and Department for Infrastructure Northern Ireland (2020a). Design Manual for Roads and Bridges(DMRB): Sustainability & Environment. LA 120 Environmental management plans. (Revision 1).

Highways England, Transport Scotland, Welsh Government, Department for Infrastructure Northern Ireland (2020b). Design Manual for Roads and Bridges (DMRB): Sustainability & Environment. LD 117 'Landscape design'. (Revision 0).

Highways England, Transport Scotland, Welsh Government, Department for Infrastructure Northern Ireland (2020c). Design Manual for Roads and Bridges (DMRB): Sustainability & Environment. LD 118 'Biodiversity design'. (Revision 0)

NetRegs (2019). Environmental guidance for your business in Northern Ireland And Scotland.

Scottish Environment Protection Agency (SEPA) (2010). WAT-SG-25: Engineering in the water environment: good practice guide. River crossings, Second edition, November 2010.

Scottish Government (2008). The Strategic Transport Projects Review (STPR)

[Note: Contractor include relevant items and update as required]

EU Directives and National Legislation

Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland)

European Commission (2000). Water Framework Directive 2000/60/EC establishing a framework for community action in the field of water policy.

Pollution Prevention and Control (Scotland) Regulations 2012

Protection of Badgers Act 1992 (as amended)

The Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017.

The Waste Management Licensing (Scotland) Regulations 2011 (as amended by the Waste Management Licensing (Scotland) Amendment Regulations 2016)

The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR)

[Note: Contractor include relevant items and update as required]

Glossary

1.8.1 A glossary is provided as part of the contents of this Environmental Impact Assessment Report (EIAR).

[Note: Contractor include relevant items and update as required]

1.9 Additional Information

1.9.1 This appendix contains the following supporting information:

- Annex A: Key Environmental Constraints
- Annex B: Relevant Management Plans
- Annex C: Environmental Method Statements
- Annex D: Emergency Procedures and Record of Any Environmental Incidents
- Annex E: Copy of Evaluation of Change Register
- Annex F: Final Environmental Investigation and Monitoring Reports
- Annex G: Risk Register
- Annex H: Construction Programme

Annex A: Key Environmental Constraints

[Note: Contractor include relevant items such as figures in Volume 3 of the EIAR and further constraints identified prior to and during construction and update as required]

Annex B: Relevant Management Plans

As noted in paragraphs [Note: Contractor to update as required], the Contractor will be required to produce environmental management plans including but not limited to:

- Flood Response and Pollution Incident Response Plan;
- Ecological Management Plan (including specific Species Protection Plans and Habitat Management Plans);
- Dust Management Plan;
- Air Quality Action Plan;
- Traffic Management Plan;
- Site Waste Management Plan;
- Noise and Vibration Management Plan; and
- Pollution Prevention Plan;

This Annex should be updated with these management plans where available and appropriate.

As noted above and in Table A6.2-4, species protection plans and habitat management plans will need to be developed by the Contractor.

[Note: Contractor to update as required]

Annex C: Environmental Method Statements

Prior to construction, the Contractor will develop environmental method statements, as required. These will include, but not be limited to, the following:

[Note: Contractor to update as required]

Annex D: Emergency Procedures and Record of Any Environmental Incidents

In the event of an accidental release of hazardous materials, information regarding those materials, spill containment materials and spill response equipment shall be clearly stated on site. The Pollution Prevention Plan (as detailed in the REAC) should be adhered to and updated at the time of any incidents.

All environmental incidents will be recorded on an incident report form.

Consultation will be taken with statutory consultees, e.g. NatureScot and SEPA, as required.

Environmental incidents that require to be recorded include:

- spill of material to ground or watercourses;
- ecological incident, i.e. involving a protected species;
- discovery of unexpected contaminated land;
- large dust emission e.g. related to cement silo works; and
- plant/equipment leak.

Lessons learnt shall be fed back to site staff through safety and environmental briefings and used by the Contractor and the Environmental Coordinator to amend procedures and update the Design Stage EMP accordingly.

Emergency procedures shall be tested routinely by the Contractor and results reported to the Contract Manager.

[Note: Contractor to update as required]

Annex E: Copy of Evaluation of Change Register

[Note: Contractor to update as required]

Annex F: Final Environmental Investigation and Monitoring Reports

[Note: Contractor to update as required]

Annex G: Risk Register

[Note: Contractor to update as required]

Annex H: Construction Programme

[Note: Contractor to update as required]