Scottish & Southern Electricity Networks
TRANSMISSION

Fanellan Hub 400 kV Substation and Converter Station Environmental Impact Assessment Report

Volume 2 | EIA Report

Chapter 19 – Schedule of Environmental Mitigation

February 2025

Scottish & Southern Electricity Networks
TRANSMISSION

CONTENTS

19. SCHEDULE OF ENVIRONMENTAL MITIGATION

19.1 Introduction

19.1.1 The purpose of this chapter is to provide a summary of the mitigation measures proposed throughout this Environmental Impact Assessment (EIA) Report, to minimise or offset the potential effects of the Proposed Development on the receiving environment.

19.1.2 **Table 19-1** provides a summary of those mitigation measures identified throughout the EIA Report.

19.1.3 The following mitigation codes are used in this section:

- GE – General Mitigation
- LV – Landscape and Visual Impact
- EC – Ecology and Nature Conservation
- O - Ornithology
- CH – Cultural Heritage
- TT – Traffic and Transport
- HG – Hydrology, Hydrogeology, Geology and Soils
- NV – Noise and Vibration
- F – Forestry
- SE- Socio Economics

Table 19-1 Schedule of Mitigation

ID	Title	Description
General Mitigation Measures		
GE1	Construction Neighbour and Community Liaison	Local residents bounding the works site will be notified of work timings and general site delivery windows as far as practicable. Any one-off significant deliveries that impact out with standard working hours and delivery hours shall be notified in advance.
GE2	Best Practice Construction Measures, GEMPs and SPPs	All works would be carried out in accordance with industry best practice construction measures, guidance, and legislation, together with General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs) that have been developed by the Applicant (the GEMPs and SPPs relevant to the Proposed Development are provided in **Volume 4, Technical Appendix 3.1: General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs)**).
GE3	Construction Environmental Management Plan (CEMP)	A contractual management requirement of the Principal Contractor would be the development and implementation of a Construction Environmental Management Plan (CEMP). This document would detail how the Principal Contractor would manage the Site in accordance with all commitments and mitigation detailed in the EIA Report, statutory consents and authorisations, and industry best practice and guidance. The CEMP would also include the following specific measures: • Erection of tree protection fencing around retained trees at the Site in accordance with BS5837:2012[207] and as deemed relevant by the

[207] British Standards Institution (2012) BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations. British Standards Institution, London.

ID	Title	Description
		Arboricultural Clerk of Works. These are shown **in Volume 3: Appendix 15.2**. (See Mitigation Measure ID F3 for detail) • Any excavations to be back-filled or covered overnight, or a 45-degree ramp will be left to allow wildlife to escape should they fall in and become trapped. A ramp will only be on one side for uncovered excavations. • Storage of materials, waste, plant, and vehicles to be a minimum of 30 m from the watercourses. • Dampening down of potential sources of dust. • Pollution prevention measures which align to best practice e.g., Guidance for Pollution Prevention documents[208] including specific protocols for construction of the outfalls (e.g., enhanced silt protection). • General compliance measures for working in adverse weather conditions – particularly for works associated with the surface water outfalls. • Specific roles, responsibilities, and reporting requirements. • The materials and waste associated with construction activities will be captured and managed through a Materials Management Plan and Site Waste Management Plan. They will detail the material, efficient use of material to minimise waste, and other waste management measures.
GE4	Restoration and Reinstatement	All temporary work areas would be reinstated to an agreed standard with landowners for future use. Reinstatement would form part of the contract obligations for the Principal Contractor and include the removal of all temporary works areas. Some temporary areas of hardstanding would be required, reinstatement would involve topsoil re-spread and the areas sown with suitable wildflower grass meadow with shrub and tree planting, where applicable.
GE5	Environmental Manager	An Environmental Manager would be appointed by the Principal Contractor for the duration of the construction phase. Their role would include coordinating input from specialists, reviewing incoming information from additional surveys, and coordinating any subsequent recommendations of mitigation measures and licensing requirements. The Environmental Manager would be responsible for continued review of incoming information and coordinating any additional specialist input to meet the Proposed Development's environmental obligations.
GE6	Environmental Clerk of Works (ECoW)	Environmental Clerk of Works (ECoW) will be appointed by the Principal Contractor to monitor, report and advise on the environmental compliance of the construction works. The ECoW will report to the Environmental Manager and Applicant. The ECoW will be competent, demonstrated by relevant experience and accreditations. Considering the nature of the Important Ecological Features (IEFs), the ECoW will have sufficient experience of Schedule 1 raptors or additional technical specialists will be sought to provide support where required e.g., for pre-construction surveys and construction monitoring.
GE7	Outdoor Access Plan	Where there may be interactions with recreational users during the construction of the Proposed Development, an Outdoor Access Plan will be prepared as part of the Principal Contractor's CEMP (see ID: GE3),

[208] NetRegs. Guidance for Pollution Prevention (GPP) documents. [Online] Available at: https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/ (Accessed: August 2024).

ID	Title	Description
		and signage would be erected at suitable locations to warn of construction traffic.
Topic Specific Mitigation Measures		
Mitigation for Landscape and Visual Impact (see Volume 2, Chapter 8)		
LV1	Site Platform Levels	The site platform levels will be set below existing ground level at levels that between them generate sufficient fill to allow the creation of landforms that screen on average at least 60 % of the tallest proposed buildings on each platform in at least 60% of the views from C1106 (Fanellan Road).
LV2	Landforms	New landforms will be created in the area between the development platforms and C1106 (Fanellan Road) that will meet the screening requirements of LV1 and, in conjunction with further screen landforms along the eastern side of the site, allow as close as possible to a balance of cut and fill to minimise, as much as possible, requirements for material import or export.
LV3	Landform Profiles and Gradients	New landforms will be rounded off both top and bottom to the largest radius practical and generally shaped to create a naturalistic landform. The landforms will have gradual slopes to the outward (public facing) side and an irregular rounded profile mimicking the local landform albeit slightly steeper. Publicly visible slopes would average a maximum of 16% slope (1:6) with locally steeper areas up to a maximum 33% (1:3). Inward facing slopes (sides towards the development platforms) may be steeper and more regular, where required.
LV4	Tapered Landforms	The ends of new landforms will be tapered out at a gradient of not more than 18% (1 in 3) to avoid sharp and un-natural transitions between landforms.
LV5	Underground Cable Easements	Land over underground cable easements will be graded to no more than 1 in 3 slopes due to technical restrictions on cable alignment.
LV6	Landform Shape – Landscape Architect	The final shape of the new landforms will be determined on Site, by eye, by an experienced landscape architect employed directly by SSEN Transmission to ensure that the finished form meets the descriptions given above. The degree of subtlety cannot be easily translated into 3D setting-out coordinates.
LV7	Amendment to Platform Levels	If circumstances arise during the construction works that require amendment to the platform levels, any design development shall consider the relationship between landform height and site platform level, so that the screening effect described in this assessment and provided on the application drawings is not reduced.
LV8	Detention Basins	A series of detention basins will be created around the Site to attenuate surface water runoff before entering natural watercourses present to the north and west of the Site.
LV9	SuDS	Parts of the SuDS areas will be seeded with appropriate wetland and marginal species for functional, visual and biodiversity reasons.

ID	Title	Description
LV10	Vegetation Retention	Existing vegetation of native hedgerow, hedgerow trees, tree groups and belts will be retained wherever possible to maximise retained biodiversity.
LV11	Native Species Planting	All native species planting will be carried out using plant material of local provenance (the closest provenance that is available in commercial quantities) to ensure maximum benefit for local biodiversity.
LV12	Land Disturbance	All areas of land temporarily disturbed by the construction works will be lightly cultivated and graded ready for seeding, in accordance with the **Landscape Mitigation Plan Figure 8.11.**
LV13	Localised Planting for Biodiversity and Visual Interest	Small quantities of rowan and elm may be introduced locally where microclimatic conditions are suitable to increase biodiversity and add local interest.
LV14	Colour Strategy Design Code	An Environmental Colour Assessment set out in Appendix 8.5 has been undertaken and a colour strategy design code will be produced for the detailed design of the different elements of the Fanellan Hub to ensure a coordinated approach between developers. The aim of the colour strategy is to further mitigate potential adverse visual effects. The colours selected would aim to ensure the Proposed Development is not viewed as a single mass of built form but broken into smaller portions and sensitive to the natural hues found within the rural landscape.
LV15	Earthworks and Planting Monitoring	Regular monitoring of both earthworks and planting will be undertaken by a professional, experienced Landscape Architect during the construction phase and the initial establishment periods to ensure the works are carried out to an appropriate standard. Monitoring to continue during Year 5, 10 and 15 of operation to enable assessment of the success of the planting in screening the development as anticipated within the LVIA.
LV16	Landscape and Habitat Management Plan	An outline Landscape and Habitat Management Plan has been prepared and will be updated at detailed design stage and on completion of construction to ensure the long-term objectives of the LVIA and BNG mitigation are met.
Mitigation for Ecology, Nature Conservation and Ornithology (see Volume 2, Chapters 9 and 10)		
O1	Species Protection Plans (SPPs)	Species Protection Plans (SPPs) have been developed by the Applicant and have been agreed with NatureScot. There are provided in **Appendix 3.1: Species Protection Plans (SPPs)**. The SPPs include bird protection plans which will include the following measures to reduce effects to sensitive species: • Pre-construction surveys and construction monitoring to update the status of the IEFs; • Disturbance protection zones around confirmed nest sites; and • Seasonal working restrictions where required.
O2	Mitigation for Osprey, Red Kite, Peregrine Falcon and Honey-buzzard	Embedded and industry-standard mitigations will be applied such as Species Protection Plans (SPPs), which will be adapted to consider non-standard forms of disturbance comprising blasting. The adaptation to the SPP will be as follows: • Blasting operations will avoid the most sensitive part of the breeding cycle for Osprey (and other relevant Schedule 1

ID	Title	Description
		raptors) when birds are mating, egg laying and incubating eggs in the period March-May as a minimum, to be informed by pre-construction surveys and construction monitoring. When considering cumulative effects of the proposed development with other proposed developments of relevance, significant impacts to the IEFs from disturbance and displacement will be avoided through implementation of the bird SPP, including pre-construction surveys and construction monitoring to inform on updated nest site locations and precautionary additional mitigation specifically for blasting operations.
EC1	Biodiversity Net Gain (BNG)	A BNG assessment has been undertaken and is presented separately to this EIA Report. Whilst at outline landscape design stage and therefore subject to changes, the BNG assessment outlines the Applicant's commitment to achieving a minimum 10 % Biodiversity Net Gain for the Proposed Development, by measuring the change in biodiversity units of habitats at the Direct Impact Areas; and outlining any potential additional habitat creation and/or enhancement measures
EC2	Outline Habitat Management Plan (oHMP)	An outline Habitat Management Plan (oHMP) has been prepared, as a stand-alone document for the Proposed Development, to set out high-level management expectations for long term habitat retention and monitoring, to help ensure the success of the habitat creation to be tracked against the predicted BNG values.
EC3	Mitigation for bats	Mitigation measures have been identified to avoid and reduce impacts on bats, as well as to comply with legal obligations associated with works affecting bats. • Sensitive timings of works: – Proposed demolition of **Structure R1** will be timed to avoid the maternity period (May to August). Due to the 'low' hibernation suitability, precautionary preference will also be given to avoiding the hibernation period (November to March). Therefore, in recognition of these periods in combination, the ideal months for the demolition of **Structure R1** are April, September or October. Pre-works surveys would apply see below) – Preference will be given to all other structure demolition and tree felling out with the active bat season (April to October), whilst bats are less likely to be present within summer PRFs. Pre-works surveys would apply see below) • Sensitive lighting: – Artificial lighting will, as far as reasonably possible, be angled to not spill over to vegetation (lines of trees, hedgerows, scrub, etc.) and riparian corridors that are to be retained around the periphery of the Direct Impact Areas. – The specifications of artificial lighting will consider use of LED luminaires with peak wavelengths higher than 550 nm to avoid the component of light most disturbing to bats, and a warm

ID	Title	Description
		white spectrum to reduce blue light component. Prevailing guidance from BCT and ILP[45] will be followed. – The use of background lighting overnight will be minimised as far as reasonably possible whilst still fulfilling safety and security requirements. • Pre-and during works: – Once the Proposed Development's final required blasting areas are ascertained, any PRF-M trees that still occur within 100 m of these areas and that have not yet been subject to further detailed assessment, should have detailed surveys completed to them, to ascertain their summer roost status. Based on the full potential blasting area, this currently applies to 15 of the 16 trees within this zone (**See Volume 2, Chapter 9 Ecology for detail of applicable trees**) – A NatureScot licence will be raised prior to works commencing within 30 m of, or blasting works within 100m of, any identified roosts, including the known roosts at **Structure R1**. – All building demolition and tree felling will be preceded by a survey for roosting bats, regardless of the known presence of a roost. This will help ensure the baseline information remains valid (e.g., in case of any delays between additional baseline surveys described above and construction start) and reduce the risk of encountering bats during invasive works. ○ For trees, this would comprise an inspection of PRFs (from ground-level or at-height) within 24-48 hours before felling, regardless of the time of year. ○ For buildings, this would comprise a dusk emergence survey of PRFs 24-48 hours before demolition, when demolition is planned between April and October (inclusive). At all other times of year, the demolition commencing. – If a new roost is identified, works will be postponed until a NatureScot bat licence is in place. Surveys will conform to the prevailing BCT guidelines[27]. Surveys would be undertaken by competent and experienced surveyors, with night vision aids. • A bat licensed surveyor will oversee all building demolition and tree felling, regardless of the known presence of a roost or time of year. Any bats found during the hibernation period (November to March) will be treated as 'unexpected finds'. Works would then be postponed until a licence is in place in conjunction with suitable hibernation roost mitigation/compensation discussions with NatureScot. • With the above protocols in place, in the unlikely event that a bat is encountered during demolition/felling, the works will cease (if safe to do so). The bat licensed surveyor will collect any exposed bats by gloved hand and move them to a nearby bat box (see below).

ID	Title	Description
		NatureScot will be consulted for a licence before continuing works, as required. • Compensation: – As compensation for the loss of the **Structure R1** day roosts, two bat boxes suitable for non-breeding pipistrelle species of bats will be installed, prior to the loss of the roost. – The bat boxes will be installed on suitable trees or structures within 100 m of the Direct Impact Areas, in accordance with the bat licence's accompanying custom bat SPP. – As compensation for the loss of the **Structure R1** maternity roost: o Prior to the loss of the roost, one concrete bat box suitable for breeding pipistrelle species of bats will be installed. The bat box will be installed on a suitable tree or structure within 100 m of the Direct Impact Areas, in accordance with the bat licence's accompanying custom bat SPP. o Once construction is completed, a heated maternity bat box will be installed on an appropriate building within the Direct Impact Areas, in accordance with the bat licence's accompanying custom bat SPP. The previously installed, non-heated maternity box defined in the previous statement shall also remain in place. – Should additional confirmed bat roosts be identified following the (above) pre-and during works additional surveys, a NatureScot bat licence will be obtained providing licensing tests can be met. The loss of additional confirmed roosts will be compensated for at a 1:1 ratio. The compensation will mimic the type of roosting location to be lost, be suitable for use by the affected species, and support the same function of the roost to be lost. The licence would be in place prior to commencement of works affecting bats. A custom species protection plan supporting the licence would detail any specific roost exclusion requirements, timing restrictions, and additional mitigation and compensation measures, depending on the type and structure of the roost. – Bat boxes would be installed between 3-4 m above ground, at a variety of aspects and away from artificial lighting. The locations must be carefully considered to ensure they would be sheltered and connected to natural habitat (i.e. not within open habitat). The approximate locations would be identified at the detailed design stage, then further advice on-site should be sought from the ECoW on the positioning. • Monitoring: – It is anticipated that monitoring surveys of compensatory roost features would be conditioned through licensing. – Where compensatory roost features are provided, as a minimum, a single inspection of each would be undertaken by a

ID	Title	Description
		licensed bat surveyor, between 2-5 years after the removal of the original roost (regardless of the potentially ongoing construction phase). If any boxes/features are found to be defective during this inspection, the boxes would be replaced.
EC4	Mitigation for badgers	Mitigation measures have been identified to avoid and reduce impacts on badgers, as well as to comply with legal obligations associated with works affecting badgers. • Avoidance: – For retained setts that occur within 30 m of the Direct Impact Areas, a 20 m proximity zone will be setup to exclude heavy plant and mitigate potential tunnel collapse, below ground. Only small plant and hand-held machinery will be operated within the 20 m zone. Care will be taken to avoid direct impacts to any burrow entrances in all areas. • Sensitive lighting: – Artificial lighting will, as far as reasonably possible, be angled to not spill over to vegetation (lines of trees, hedgerows, scrub, etc.) and riparian corridors that are to be retained around the periphery of the Direct Impact Areas. – The use of background lighting overnight will be minimised as far as reasonably possible whilst still fulfilling safety and security requirements. • Pre- and during works: – Once the Proposed Development's final required blasting areas are ascertained any potential setts that still occur within 100 m of these areas and that have not yet been subject to further detailed assessment, should have detailed surveys completed to them, to ascertain their active badger sett status. – A pre-construction badger survey will be undertaken within the Direct Impact Areas and its EZoI, no earlier than two months prior to construction commencing. – Any unconfirmed, potential setts that occur within the Direct Impact Areas or their EZoI, including any newly established/identified potential setts identified during pre-construction badger survey(s), will be monitored prior to the Proposed Development's construction[47] commencing within 30 m of them or blasting activities commencing within 100 m of them. Monitoring should be completed for a minimum of two-weeks during the summer months, or four-weeks during the winter. – Due to the transient nature of badgers, a pre-construction badger survey should be undertaken within the Direct Impact Areas and their EZoI, no earlier than two months prior to construction commencing, in order to confirm that the situation regarding badger at the Direct Impact Areas has not changed in the interim period. – Surveys would be undertaken by competent and experienced surveyors. Surveys would follow best practice prevailing

ID	Title	Description
		guidelines. This may be fulfilled by the ECoW if they hold the relevant experience. Surveys would be undertaken prior to construction works, with subsequent update timings and any deviation from prevailing guidelines at the direction of the ECoW. The findings would be reported to the Environmental Manager. This would be required with reference to guidance on the lifespan of ecological data; due to the change in land use during construction; the badgers transient nature; and the relatively high density of setts, such that the baseline could change within and between seasons. • Licensing: – Where no suitable alternative exists and other licensing tests can be satisfied, a licence will be obtained for works affecting badgers. This will include sett destructions and potential disturbance effects where badger setts are to be retained but are in proximity (e.g., within 30 m) to construction operations with the potential to cause disturbance. The licence will be in place prior to commencement of the works affecting badgers. A custom species protection plan supporting the licence will detail any specific sett exclusion requirements, timing restrictions, and additional mitigation and compensation measures, depending on the current use of a sett at the time of works[49]. – Licensing requirements may be dynamic over the construction period and should be reviewed regularly by the Environmental Manager in consultation with the ECoW. The ECoW would also monitor compliance with the conditions of any licences.
Mitigation for Cultural Heritage (see Volume 2, Chapter 11)		
CH01	Demarcation and Avoidance	The following heritage assets are contained within the Site, but should not be impacted upon, and will be demarcated: • Clach Tarrail grave (A14) • Kiltarlity Cottages (A15) • Ruttle Wood Cairn (A16) Demarcation will be in the form of temporary Heras fencing and signage to be placed 10 m from either the visible edge of the heritage asset, or from the known location as determined by the on-site project archaeologist. If these heritage assets cannot be avoided due to proposed lay down areas or extensive landscaping works, then further archaeological works would be required (CH02).
CH02	Preservation through Record	After archaeological evaluation and where heritage assets are anticipated to be completely removed, a programme of archaeological excavation will be required. The methodology for the works is set out within the Archaeological Project Design (see **Volume 4, Appendix 11.3: Archaeological Project Design for Archaeological Evaluation and Mitigation**), setting out the excavation methodology, reporting, post-excavation assessment and analysis, publication of the findings, and archiving requirements.

ID	Title	Description
Mitigation for Traffic and Transport (see Volume 2, Chapter 12)		
TT1	Site Access	Formation of a new access to the East of the Site on the C1106 immediately to the west of the U1604, with visibility provided in accordance with standards. This new access would ensure the majority of construction vehicles would avoid using the narrower section of the unclassified road and help to mitigate the potential impacts of construction traffic.
TT2	HGV Loading and Holding Areas	Formation of these within the Site boundary to avoid any construction traffic idling on the public road network
TT3	Black Bridge works	Replacement and overbridging works on Black Bridge: to be undertaken prior to its use by HGVs associated with construction activity estimated to be completed between December 2026 and August 2027;
TT4	Public road improvements	Public road improvements (PRIs) throughout the construction access routes such as widening of the C1106 carriageway to a width of 7.5 m, and hardstanding provision and the removal of street furniture for the movement of Abnormal Loads. The PRIs will be supported by a management strategy and a range of traffic management measures that, in combination, will reduce the impact on road users.
TT5	Route Signage	Temporary signage will be erected on the proposed access routes in the vicinity of the proposed Site access, and at other locations as considered necessary, to warn people of construction activities and associated construction vehicles. The purpose of such signage is to provide driver information and to maintain road safety along the construction vehicle route. The exact nature and location of the signage would be agreed with The Highland Council prior to the commencement of construction activities.
TT6	Construction Traffic Management Plan (CTMP)	Prior to the commencement of any onsite activities, a detailed Construction Traffic Management Plan (CTMP) would be prepared and agreed with The Highland Council. The CTMP would include a number of measures to reduce the effects of the construction of the Proposed Development on local receptors and communities. The Outline CTMP (**Volume 4, Technical Appendix 12.1**) details the outline mitigation measures, which would be updated as and when additional information becomes available. Measures set out in the CTMP will be implemented by the Contractor.
Mitigation for Hydrology, Hydrogeology, Geology and Soils (see Volume 2, Chapter 13)		
HG1	Construction Environmental Management Plan (CEMP)	As outlined in GE2, a CEMP would detail how the Principal Contractor would manage the Site in accordance with all commitments and mitigation detailed in the EIA Report, statutory consents and authorisations, and industry best practise and guidance. The CEMP would also include the following specific hydrology, hydrogeology, geology and soils measures: Any excavations to be back-filled or covered overnight, Storage of materials, waste, plant, and vehicles to be a minimum of 30 m from the watercourses. • Dampening down of potential sources of dust.

ID	Title	Description
		• Pollution prevention measures which align to best practice e.g., Guidance for Pollution Prevention documents[2] including specific protocols for construction of the outfalls (e.g., enhanced silt protection). • General compliance measures for working in adverse weather conditions – particularly for works associated with the surface water outfalls. • Specific roles, responsibilities, and reporting requirements. • The materials and waste associated with construction activities will be captured and managed through a Materials Management Plan and Site Waste Management Plan. They will detail the material, efficient use of material to minimise waste, and other waste management measures.
HG2	Private Water Supplies (PWS)	Further consultation will be required with local property owners regarding the potential for unregistered PWS located within 250 m of works. The Principal Contractor will be required to consider all construction activities and satisfy themselves that they are aware of all PWS and associated network infrastructure in the local area that may be at risk of adverse effects as a result of the Proposed Development. Should any PWS be identified, an assessment of potential impacts will be undertaken and, where required, specific mitigation will be developed and agreed with SEPA and the PWS owner.
HG3	Watercourse Crossings	All structures will be designed and constructed following good practice techniques and in accordance with SSEN Drainage Specification. This would be of sufficient capacity to receive 1 in 200 years storm flows with an allowance for increased flows due to climate change. Key measures identified to minimise alterations to surface water drainage patterns include: • Application of sustainable drainage techniques to increase peak lag time and implementation of cross-drains at appropriate intervals and frequent discharge points to reduce scour potential; and • Minimising the size and duration of in-channel works. • Excluding the need to culvert for land drainage and access, where feasible, SEPA guidance will be followed[209].
HG4	Sustainable Drainage Systems (SuDS)	The application of Sustainable Drainage Systems (SuDS) to reduce the increase of flood risk to downstream areas will be utilised. The aim of SuDS is to emulate natural drainage systems to return post-development flows to pre-development levels. Following consultation with SEPA, the design was amended to relocate the proposed SuDS basin at least 10 m away from any watercourses in order to avoid watercourse crossings
HG5	CAR Compliance	Consultation with SEPA will be undertaken to identify potential CAR (Controlled Activities Regulations) authorised activities associated within

[209] SEPA: Culverting of Watercourses – Position Statement and Supporting Guidance. Available at https://www.sepa.org.uk/media/150919/wat_ps_06_02.pdf [Accessed: November 2024].

ID	Title	Description
		the Proposed Development in accordance with SEPA Controlled Activity Regulations, and the CAR Practical Guide.
HG6	Scottish Water Assets	Consultation with Scottish Water will be undertaken prior to construction to confirm any Scottish Water assets which require protection. Specific mitigation measures will be developed and will be agreed with Scottish Water.
HG7	Material and waste management	The Principal Contractor will follow SEPA guidance in relation to soil, earthworks and site restoration including but not limited to land remediation and waste management guidelines[44]. SEPA land remediation and waste management guidelines outline how SEPA regulate the reuse of potential contaminated materials at an excavation site. Any identified contaminated material not suitable for reuse can be treated on site to render it suitable for reuse under waste management legislation by a licenced contractor. The treated materials must still meet the criteria listed in the 'Land remediation and waste management guidelines' publication and be suitable for use once remediated, and if appropriate a Material Management plan will be produced by the Principal Contractor. The Principal Contractor must follow and implement all appropriate waste and environmental legislation,and which is to be agreed with The Highland Council and SEPA prior to excavation commencing.
HG8	Temporary Drainage	Temporary drainage during construction will utilise hessian lined or grassed drainage ditches and filter drains to treat and convey water. All works will be supervised and inspected to ensure drainage is constructed according to the detailed design, outlined further in the Drainage Impact Assessment (DIA) (**Appendix 13.3**). This will eliminate the possibility of cross contamination between the foul network and surface water network during construction. In the case of pollution incident effects, good practice site environmental management measures and the dilution factor involved would be expected to reduce any potential sedimentation effect downstream.
HG9	Foul Drainage	Foul drainage will be managed by disposal via suitable package treatment works prior to discharge into an appropriately sized Herringbone drainage field in the east of the site. The strategy is subject to appropriate treatment and pollution control measures.
HG10	Modification of Surface Water Drainage Patterns	The adoption of applicable good practice measures would reduce the impact of modification to surface water drainage patterns, with artificial drainage installed only where necessary and, wherever practical, being installed in advance of ground being cleared of vegetation. All structures will be designed and constructed following good practice techniques and would be of sufficient capacity to receive storm flows with an allowance for increased flows due to climate change. Key measures identified to minimise alterations to surface water drainage patterns include: • Application of sustainable drainage techniques to increase peak lag time and implementation of cross-drains at appropriate intervals and frequent discharge points to reduce scour potential;

ID	Title	Description
		• Any alteration to the drainage regime will require consideration of existing groundwater levels and ponding in the local area; • Any alteration to the drainage regime will be designed to be sympathetic to local watercourse features, including bed and bank materials, and gradients; • Minimising the size and duration of in-channel works; and • Appropriate design of any crossing structures in accordance with SSEN Drainage Specification, to ensure sufficient capacity to convey 1:200-year storm flows and enable mammal and fish passage.
HG11	General Environmental Management Plan (GEMP)	The adoption of the applicable GEMPs would reduce the probability of an incident occurring and also reduce the magnitude of any incident due to a combination of good site environmental management procedures, staff training, contingency equipment and emergency plans. The GEMPs (see **Appendix 3.1)** applicable to this chapter are: • Working in or near water; • Working in sensitive habitats; • Watercourse crossings; • Private water supplies; • Soil Management; • Oil Storage and Refuelling; • Contaminated Land; • Working with concrete; and • Bad weather.
HG12	Reuse of materials	The Principal Contractor will assess the quantities of materials that may be available at the Site and identify any potential for re-use within the Proposed Development. The Principal Contractor will adhere to construction good practices that help to minimise the use of raw materials and maximise the use of secondary aggregates and recycled or renewable materials within the Site. Final design will demonstrate whether additional material will be required / generated, and where it is proposed to be temporarily or permanently stored. Final design should look to achieve a cut and fill balance on or in the immediate vicinity of the Site where possible to reduce/avoid haulage via the local road network.
Mitigation for Noise and Vibration (see Volume 2, Chapter 14)		
NV1	Construction Noise Management Plan (CNMP)	It is best practice that construction noise should continue to be controlled by a Construction Noise Management Plan (CNMP), in accordance with the guidance and procedures outlined in BS 5228-1. The CNMP is expected to be embedded within the Construction Environmental Management Plan (CEMP). Procedures will include: • minimising the noise as much as is reasonably practicable at source; • attenuation of noise propagation; • carrying out identified high noise level activities at a time when they are least likely to cause a nuisance to residents; and • providing advance notice of unavoidable periods of high noise levels to residents.

ID	Title	Description
NV2	Attenuation of construction noise at source	In order to maintain low impact on the noise environment, consideration will be given to attenuation of construction noise at source by means of the following: • giving due consideration to the effect of noise, in selection of construction methods; • avoidance of vehicles waiting or queuing, particularly on public highways or in residential areas with their engines running; • scheduling of deliveries to arrive during set hours to be agreed with THC that are likely to be in line with Monday to Friday 08:00 – 19:00 and Saturday 08:00 – 13:00. Care should be taken to minimise noise while unloading delivery vehicles. Delivery vehicles should follow routes that minimise use of residential roads; • ensure plant and equipment are regularly and properly maintained. All plant should be situated to sufficiently minimise noise impact at nearby properties; • fit and maintain silencers to plant, machinery, and vehicles where appropriate and necessary; • operate plant and equipment in modes of operation that minimise noise, and power down plant when not in use; • use electrically powered plant rather than diesel or petrol driven, where this is practicable; • work typically not to take place outside of requested working hours as set out in this EIA Report; • where feasible, procurement of low noise piling rigs, ideally at or below 115 dB sound power level; and • careful consideration of the location of crushing activities to reduce impacts on nearby NSRs
NV3	Attenuation of construction noise in the transmission path	Consideration will be given to the attenuation of construction noise in the transmission path by means of the following: • locate plant and equipment liable to create noise as far from noise sensitive receptors as is reasonably practicable or use natural land topography to reduce line of sight noise transmission; • noise screens, hoardings and barriers should be erected where appropriate and necessary to shield high-noise level activities; and • provide lined acoustic enclosures for equipment such as static generators and when applicable portable generators, compressors and pumps.
NV4	Construction - Informing public of blasting operations	It is good practice to publicise times when blasting will occur (if required) and to avoid blasting at other times whenever possible. Owners of sensitive properties will be contacted to advise of any imminent blasting works.
NV5	Reduction of air overpressure and/or vibration	Practical measures, including good blast design, that have been found to reduce air overpressure and/or vibration are: • taking particular care with the development of faces and with trial blasts as anomalous vibration levels might be produced when there is no free face to relieve the energy produced; ensuring appropriate burden to avoid over or under confinement of the charge;

ID	Title	Description
		• accurate setting out and drilling; • appropriate charging; • appropriate stemming with appropriate material such as sized gravel or stone chippings; • Using delay detonation to ensure smaller maximum instantaneous charges (MICs); • Using decked charges and in-hole delays; • Blast monitoring to enable adjustment of subsequent charges; • Designing each blast to maximise its efficiency and reduce the transmission of vibration; and • Avoiding the use of exposed detonating cord on the surface in order to minimise air overpressure.
NV6	Construction Blasting	Careful management of the blasting process must take place through a Blasting Management Plan to minimise effects
NV7	Operation - Acoustically optimised design	A number of the highest producing noise items, such as the transformers and reactors, are housed indoors or in a total acoustic enclosure. This mitigates the potential noise issues these would cause, assuming the building materials and noise transmission areas offer sufficient acoustic attenuation. An acoustically optimised design will be progressed during the detailed design phase of the project. There are various engineering solutions and potential mitigation strategies that could be implemented to reduce noise levels from valve coolers, some specific HVAC units and other cooling systems. Options could include : • specification of low noise units; • use of an active fan system with variable speed drive; • use of liquid to liquid cooling; • housing the equipment indoors; • a system with a larger number of fans operating at lower duty; and/or • noise barriers to target propagation from specific noise sources.
NV8	Operational Noise	During the detailed design phase, SSEN Transmission will work towards reducing noise levels with appropriate engineering design or mitigation, using the principle of ALARP.
Mitigation for Forestry and Arboriculture (see Volume 2, Chapter 15)		
F1	Arboricultural Method Statement (AMS)	An outline Arboricultural Method Statement (AMS) is included in **Volume 3: Appendix 15.4**. The AMS adopts a precautionary approach to tree protection and addresses activities which have the potential to cause damage to retained trees. The AMS addresses, in principle, the following matters which are of relevance to the Proposed Development: • arboricultural site supervision; • tree protection fencing;

ID	Title	Description
		• additional precautions outside the CEZ; and • Installation of underground apparatus and service runs. It is recommended that this AMS be viewed as a 'living document'. It should therefore be reviewed, and if necessary, updated at the following stages of design and construction: • Detailed design and discharge of conditions or reserved matters; • Contractor engagement; • Pre-commencement; and • Prior to any instance where the site clearance or construction methodology is amended. The Principal Contractor must review and finalise the outline AMS to become a site-specific AMS prior to construction.
F2	Compensation Planting	Tree loss would be compensated through the implementation of a landscape design including new tree planting on site as shown on **Volume 3, Figure 8.11: Landscape Mitigation Plan** of the EIAR and offsite compensatory planting (see standalone Compensatory Planting Strategy).
F3	Construction Exclusion Zone (CEZ) for all retained features including trees remaining in partially removed groups	Where possible, establish a Construction Exclusion Zone (CEZ) around retained trees RPAs for duration of construction as outlined in an AMS. CEZ to be established around canopy if this is larger. Indicative areas of protective fencing for retained features are shown on the TRPP in **Appendix 15.2**. Where full exclusion is not feasible, other special measures may be considered, where practicable, which may include one or a combination of the following: design refinements to avoid or reduce encroachment, micro-siting, hand digging and 'no dig' solutions such as geocellular ground protection, and protective fencing. Areas of special measures are shown on the TRPP in **Appendix 15.2**. It may not be deemed necessary or proportionate to provide protective fencing around all retained features (e.g. trees suitably distanced from works) and the application of which will be at the discretion of the Arboricultural Clerk of Works (ArbCoW). Where works within an RPA are required, or where pruning is required, supervision to be conducted by ArbCoW and any additional recommendations to be followed.
F4	Veteran Trees	The removal of the veteran trees is not required for the Proposed Development. The landscape form design was refined to retain the three veteran trees on site. These trees are to be recorded as site assets and any pruning required will be undertaken only once a management plan has been developed for these trees.

ID	Title	Description
		The Applicant is responsible for ensuring the management plan is developed by an arboriculturist and makes specific mitigation and best practice recommendations in order to protect the health of trees. The management plan should be approved by the local authority in advance of works.
Mitigation for Socio Economics (see Volume 2, Chapter 16)		
SE1	Landscape Mitigation Measures	With regard to recreational receptors and visual amenity, Landscape mitigation measures will be considered to provide visual screening and help assimilate the Proposed development into the surrounding landscape.