Appendix 4.2: Schedule of Mitigation

(Document ID: MMH-LUC-A004-ENV-0002-011)

Table 4.2.1: Schedule of Embedded Mitigation

Ref.	Commitment	How Commitment is Secured
1	Preparation of a Construction Environmental Management Plan (CEMP). This will include but not be limited to noise and vibration management; dust and air quality management; water management and pollution control and soil resource management. Outline CEMP provided as Appendix 4.1.	Secured through a planning condition.
2	Core working hours for the construction of the onshore elements of the Proposed Development will be 07:00 to 19:00 Monday to Friday and 07:00 to 13:00 on Saturdays. In certain circumstances, specific works (for example; crossings, HDD, large/abnormal loads deliveries) may have to be undertaken outside the normal working hours and will be notified in advance to Aberdeenshire Council. Activities carried out during mobilisation and maintenance will generally not generate significant noise or vibration levels and may be undertaken outside these hours.	Secured through a planning condition.
3	Appointment of an Environmental Clerk of Works (ECoW) to monitor the implementation of approved mitigation measures outlined in the CEMP and the organisation of related staff training and toolbox talks. If monitoring identifies non-compliance, ineffective mitigation measures, or impacts beyond those predicted in the EIA Report, this will be raised with the Contractor who will be required to demonstrate and deliver compliance.	Secured through a planning condition and implementation of the CEMP.
4	Fencing off of the cable corridor zones, landfall zone and substation zone for the duration of construction works. Where required during construction, crossing points will be installed and maintained in suitable places in order that livestock and vehicles can continue to gain access.	Secured through implementation of the CEMP.
5	Permanent use of security fencing to prevent unauthorised access to the Onshore Substation, for health and safety reasons.	Secured through a planning condition.
6	Compliance with all relevant guidelines, design criteria and exposure thresholds relating to electromagnetic fields (EMFs).	To be progressed through the detailed design process.
7	Consideration of cable and substation design measures to reduce embodied carbon/ensure energy efficiency.	To be progressed through the detailed design process.
8	Commitment to locating the transition joint bays and associated temporary infrastructure in the Landfall Zone at a minimum distance of 150 m from Mean High Water Springs (MHWS).	Secured through a planning condition.
9	Commitment to using trenchless techniques (HDD) in sensitive locations, including the Rattray Head to Peterhead Local Nature Conservation Site (LNCS) and the River Ugie corridor.	Secured through a planning condition.
10	Commitment, where practicable, to ensuring that all excavations <1 m deep are over 100 m away from any groundwater abstractions, private water supplies (PWS) or groundwater dependent terrestrial ecosystems (GWDTEs) as per SEPA guidance (SEPA, 2017). Excavations >1 m deep (e.g. the cable) will be over 250 m away, where practicable.	Buffers to be applied at the detailed design stage. Any additional mitigation proposed to be secured through a planning condition.

Confidentiality: C2 - Internal

Ref.	Commitment	How Commitment is Secured
11	Inclusion of SEPA riparian buffers around all watercourses, where possible, and avoidance of future floodplains (as per SEPA flood maps). Where this is not practicable, and water crossings are required, a Controlled Activities Regulations (CAR) licence will be sought, where necessary, from SEPA prior to construction works.	Riparian buffers will be applied at the detailed design stage; details of any locations when the buffers cannot be achieved will be set out in the CEMP and additional site-specific mitigation at these locations will be committed to. If flood risk areas cannot be avoided during detailed design, a site-specific flood risk assessment (FRA) will be prepared for the detailed design and submitted to SEPA and Aberdeenshire Council. CAR licences for crossings (if required) will be secured through the CAR licence process with SEPA.
12	Preparation of a Water Quality Monitoring Programme (WQMP) as part of the CEMP, outlining the water quality monitoring that is proposed.	Secured through a planning condition.
13	During construction, regulation of surface water discharges under CAR, with a requirement to obtain a CAR Construction Site Licence. A Pollution Prevention Plan (PoPP) will be prepared as part of the CEMP.	Secured through the CAR Construction Site Licensing process and implementation of the CEMP.
14	Implementation of pollution control Industry practices and additional site-specific measures. This will include relevant measures to protect the Scottish Water Drinking Water Protection Area (DWPA), where there is an abstraction for a public drinking water supply, and to prevent run-off during forestry felling. This will include sensitive crossing design (cable and temporary access tracks) and the re-establishment of bed and banks of watercourses and crossing locations to their previous condition immediately after construction. The Contractor will also follow Scottish Water's list of precautions for activities within a DWPA and associated protection measures for the abstraction and other Scottish Water assets.	To be implementd through the CEMP and Construction Site Licensing process with SEPA. SEPA guidance on pollution control and crossing design will be adhered to.
15	Implementation of measures to protect any private water supplies identified in proximity to the Proposed Development.	Secured through a planning condition.
16	Preparation of a Drainage Management Plan (DMP), which will apply to the operational phase. This will include Permanent Sustainable Drainage Systems (SuDS). With assistance of the landowner/occupier, the location of any field drains which could potentially be damaged by construction works will be identified. These drains may be diverted elsewhere or protected. Permanent surface water/field drains will be re-installed to reinstate any pre-existing field drainage systems.	This will be secured during the detailed design stage in consultation with Aberdeenshire Council.
17	Preparation of a Soil Management Plan (topsoil and subsoil). To include appropriate site investigation, soil testing, remediation and validation. Current industry best practice and published guidelines will be used, to protect, conserve and reinstate soil material, its physical and chemical	Secured through a planning condition.

Confidentiality: C2 - Internal

Ref.	Commitment	How Commitment is Secured
	properties and functional capacity for agricultural use. Topsoil and subsoil movements will only be undertaken in suitable conditions, e.g. avoiding extreme wet weather. Following the completion of all construction works, land temporarily used will be fully reinstated as near as practical to its former condition or as agreed with landowners in advance.	
18	Arrangement of pre-entry meetings with owners and occupiers of land or their agents to ensure that disruption to farming activities are kept to a minimum. Continued liaison with farmers and/or their agents throughout construction.	Secured through implementation of the CEMP and SMP.
19	Inspection of land prior to work commencing, with a detailed record of its condition made, including private roads, gateways, fences and structures. Care will be taken to prevent the disturbance and straying of livestock. In the interests of security, all field gates will be kept shut unless otherwise requested. If any fences are removed, they will be replaced, as appropriate.	Secured through implementation of the CEMP and SMP
19	Preparation of a Biosecurity Management Plan (BMP) to avoid the introduction and spread of terrestrial non-native species. All movement of plant and vehicles between fields will cease in the event of a disease outbreak and official advice from The Animal and Plant Health Agency will be followed to minimise the biosecurity risk associated with the continuation of the works.	Secured through a planning condition.
20	Preparation and agreement of Protected Species and Habitat Management Plans and a Watercourse Protection Plan. This will include a Bird Species Protection Plan (BSPP) to safeguard breeding and roosting bird species.	Secured through a planning condition.
21	Inclusion of a 275 m buffer between residential properties and the substation compound for the avoidance of effects which exceed the residential visual amenity threshold.	Secured through a planning condition.
22	Preparation of landscape, planting and reinstatement plans. Screen planting to be provided along the southern, eastern and northern boundaries of the site, in line with the principles illustrated on the Outline Landscape Mitigation Plan (Figure 8.8 of the EIA Report).	Secured through a planning condition.
23	Installation/use of vibration isolation pads and anti-vibration mounts, if required, from equipment located within the onshore substation.	Established within the detailed design principles and outlined within the CEMP which will be secured through a planning condition.
24	Use of Best Practicable Means (BPM) to limit the impacts of noise and vibration at sensitive receptors. This includes selection of quieter equipment where reasonably practicable; plant not in use to be switched off; construction plant to be well-maintained; the use of tonal reverse alarms to be minimised and broadband alarms used where possible, and mobile plant and stationary plant items to be routed or located to maximise separation distances from noise-sensitive receptors, where practicable.	Implementation through the CEMP which is to be secured through a planning condition.
25	The setting up and publicising of a contact point with the contractor to log, monitor and address any complaints associated with noise during the construction period. The provision of information to local residents to advise of potential noisy works.	Implementation through the CEMP which is to be secured through a planning condition.

Confidentiality: C2 - Internal

Ref.	Commitment	How Commitment is Secured
26	The fencing off or marking out of known sites or features of archaeological and/or cultural heritage importance in proximity to working areas to avoid physical direct impacts to such a resource (to be secured by a Written Scheme of Investigation if required). An appropriate buffer zone will be implemented as far as practicable.	Secured through a planning condition.
27	Archaeological recording in advance of construction where avoidance of sites or features is not feasible, secured by a Written Scheme of Investigation.	Secured through a planning condition.
28	Implementation of a working protocol should unrecorded archaeological features be discovered, secured by a Written Scheme of Investigation.	Secured through a planning condition.
29	Preparation and agreement of a Construction Traffic Management Plan (CTMP). Outline CTMP provided as Appendix 11.1.	Secured through a planning condition.
30	Preparation and agreement of a Public Access Management Plan (AMP). Outline AMP provided as Appendix 4.4.	Secured through a planning condition.
31	Preparation of a Biodiversity Enhancement Plan (BEP). Outline BEP provided as Appendix 5.5.	A detailed BEP will be developed at Approval of Matters Specified in Conditions (AMSC) stage and secured through a planning condition as appropriate.

Table 4.2.2: Schedule of Additional Mitigation

Ref.	Commitment	How Commitment is Secured
32	If PWS/groundwater abstraction buffers cannot be achieved during detailed design, a detailed risk assessment will be carried out and if required, site-specific measures will be set out in the CEMP to minimise the risk of surface water runoff draining from the construction site to the PWS/groudwater abstraction source. Monitoring of the PWS/groundwater abstraction will be undertaken by an ECoW (or equivalent) before, during and after construction to check there is no contamination of the supply or change in quantity of supply. If water quality deteriorates during construction (e.g. discoloured, high sediment content, hydrocarbons) or quantity decreases an alternative water supply will be installed (e.g. portable bowsers). In a worst-case scenario, the Developer will provide a new water supply for properties supplied by each PWS/groundwater abstraction. If a suitable new PWS/abstraction cannot be achieved, the Developer will provide a new connection to the Scottish Water mains.	Implementation of site-specific mitigation and monitoring through the CEMP. PWS relocation or connection to mains supply in worst-case will be secured via agreement between the property owners and the Developer.
33	If the substation cannot avoid the flood risk area (based on SEPA Future Flood Maps) associated with the small drain/ watercourse, a more detailed site-specific flood risk assessment will be undertaken to predict the future floodplain of the watercourse and inform the detailed design, such that the flood risk area is avoided, where practicable.	Secured through a planning condition.

Confidentiality: C2 - Internal

Ref.	Commitment	How Commitment is Secured
34	If the GWDTE within the Site cannot be buffered by 250 m at detailed design, the Developer will carry out a more detailed site-specific assessment of the GWDTE. If the detailed assessment finds that the potential effect on the GWDTE is significant, the Developer will commit to site-specific mitigation measures (which will be developed in consultation with SEPA and other relevant stakeholders, e.g. NatureScot) to avoid or offset the effect. If site-specific mitigation is required, monitoring of the GWDTE before, during and after construction will be carried out as per SEPA (2024) guidance to demonstrate the effectiveness of the mitigation measures.	Secured through a plannign condition.
35	To reduce noise effects associated with landfall HDD works, the following additional mitigation measures are proposed: • HDD locations will be chosen to maximise distance from nearby residential properties as far as practicable, whilst considering other constraints. • Use of quieter equipment than that assesed where reasonably practicable. This would be reviewed by the contractor following initial ground investigations. • Consideration of Site boundary screening around the HDD works area, noting that it is likely to be impractical to provide noise barriers that are high enough to screen an entire HDD drilling rig. • The duration of any HDD works will be minimised within practical and safety constraints. Residents potentially affected will be kept informed throughout. • If HDD works are likely to result (following consideration of the above factors) in noise levels at the nearest receptors above 45 dB $L_{Aeq,T}$ for more than 10 days in a 15-day period, or above 50 dB $L_{Aeq,T}$ for less than 10 days in a 15-day period, then the following additional mitigation measures will be investigated: – Restricting the noisiest works, if possible, to the standard daytime working hours and interrupted at night. – Noise monitoring at the affected property during the works, with the noisiest activities interrupted (if possible) if these noise levels are exceeded. – Some of the closest residents to the HDD drilling works may also be offered temporary re-housing for short periods (expected to be no more than a few days) whilst HDD drilling is undertaken at night.	Implementation as part of the HDD drilling schedule and mitigation plan through the CEMP, which would be secured through a planning condition.
36	To reduce noise effects during construction of the cable route, construction locations will maximise distance from nearby residential properties as far as possible, with a minimum buffer of 60 m, where practicable, whilst considering other constraints. Where work is required within 60 m of receptors, the following additional mitigation measures are proposed: • Quieter equipment could be used upon review by the contractor following initial ground investigations. • Solid site boundary screening or mobile acoustic screens around plant items can be employed in the works area. • The duration of any works can be minimised within practical and safety constraints. Residents potentially affected will be kept informed throughout.	Implementation as part of the HDD drilling schedule and mitigation plan through the CEMP, which would be secured through a planning condition.

Confidentiality: C2 - Internal

Ref.	Commitment	How Commitment is Secured
	Trenchless construction methods rather than HDD will be investigated and used instead where safe and practical to do so; these would be associated with similar or lower noise emission levels and may not require night-time working, therefore reducing the associated effects. If HDD needs to be employed, similar measures as those proposed above will be considered and included in the CEMP as part of the HDD drilling schedule and mitigation plan.	
37	To reduce noise effects during construction of the onshore substation, locations for site compound and earthworks will be chosen to maximise distance from nearby residential properties where practicable, and minimise duration of the works, subject to other constraints. Where works are required at close distance to the receptor the following additional mitigation measures are proposed: • Use of quieter equipment, where practicable. For example, use of non-percussive piling would reduce associated noise levels. • Solid site boundary screening or mobile acoustic screens around plant items can be employed in the works area when working in proximity to sensitive properties. • The duration of any works can be minimised within practical and safety constraints. In such cases, residents potentially affected will be kept informed throughout. • Noise monitoring at the affected property during the works, with the noisiest activities interrupted (if possible) if these noise levels are exceeded.	Implementation as part of the mitigation plan through the CEMP, which would be secured through a planning condition.
38	Based on the indicative substation layout assessed, a total reduction in noise levels of 15 dB(A) is required to the total predicted A-weighted noise levels to achieve the absolute criteria of 35 dB L_{RA}. It should be noted that the reduction is based on the worst-case assumptions set out in Chapter 10 of the EIA Report and is not prescriptive. A different noise reduction levels may be suitable based on the final design and plant selections. Possible mitigation measures to achieve the required reduction in principle are as follows: • Selection of quieter plant e.g., transformers, reactors, harmonic filters, with lower sound power levels; • Strategic placement of noisiest plant e.g., placing noisiest sources (Super Grid Transformer, Shunt Reactors) to the north of compound, which is further from Noise-Sensitive Receptors (NSRs), using screening from building and other substation elements to minimise noise levels; • Acoustic Enclosures of plant such as transformers and shunt reactors (specialist enclosures would be required to achieve the necessary reduction including suitable performance at lower frequencies); • Enclosed Gas-insulated Substation, i.e., all plant is located inside a gas-insulated building envelope, subject to careful design engineering; and • Acoustic barriers or bunds in line of sight between substation and NSRs. The final specification of the acoustic measures required would be determined through further studies when the final substation design	It is proposed that the final design of the mitigation measures should be secured via a planning condition at the AMSC stage. This planning condition would also secure operational noise monitoring of the onshore substation once completed and operational, to demonstrate that the final design of the onshore substation can operate within the noise limits specified. This monitoring could be undertaken at the two nearest residential properties or at locations representative of these properties.

Confidentiality: C2 - Internal

Ref.	Commitment	How Commitment is Secured
	and equipment specifications are known and will be designed to meet the following criteria as part of the detailed design process: • Noise from the onshore substation would not exceed 35 dB L_{RA} Rating levels at the external amenity area of any NSR during daytime, in accordance with BS 4142; and • The Internal levels of noise would not exceed NR20 within bedrooms during the night-time at any NSR (with opened windows).	
39	Management of cumulative noise effects through careful planning and liaison with other developers to minimise the possibility of construction activities are not done at the same time in relative proximity to the same receptors. This can include managing the scheduling of activities or distances to avoid substantial increase in noise levels.	Secured through a planning condition.
40	The reduce effects associated with peak construction traffic on the network, the following additional mitigation measures will be implemented: • Detailed Construction Traffic Management Plan (which will build on the 'basic' CTMP which is committed as detailed in item 29 above); • Wear and Tear Agreement for local roads; • Public information and road signage strategy; • Abnormal Load Transport Management Plan; and • Improved laybys and passing places on the minor road network.	Secured through a planning condition.

Confidentiality: C2 - Internal