Chapter 15: Schedule of Commitments

Contents

15.	Schedule of Commitments	15-1
15.1	Introduction	15-1
15.2	Schedule of Commitments	15-2
15.3	Enhancement Commitments	15-22
15.4	References	15-23



15. Schedule of Commitments

15.1 Introduction

- 15.1.1 The Schedule of Commitments provides:
 - a summary of mitigation and compensation measures (Table 15-1) that have been proposed throughout the Environmental Impact Assessment (EIA) Report to prevent, reduce or offset the effects of the Proposed Development on the environment; and
 - further enhancement measures (Table 15-2) committed to as part of the Proposed Development as outlined in the outline Biodiversity Enhancement Strategy (BES) (Technical Appendix 6.5). These measures do not form part of the mitigation, but provide enhancement in addition to the measures outlined in Table 15-1.
- 15.1.2 Mitigation measures applied during construction and operation of the Proposed Development, have been integral to the design evolution of the Proposed Development as described in Chapter 2 and Chapter 3. A series of environmental and technical constraint design reviews were undertaken to minimise potential significant environmental impacts prior to finalising the design of the Proposed Development.
- 15.1.3 Mitigation measures which may need to be implemented during decommissioning would be agreed with the key stakeholders at that time via an interim Decommissioning Restoration and Aftercare Strategy (DRAS). Details within this are likely to be similar to the Construction Environmental Management Plan (CEMP) in line with best practice measures at that time. The DRAS is not included in Table 15-1.

15.2 Schedule of Commitments

15.2.1 **Table 15-1** sets out the design, mitigation and compensation measures committed to by the Applicant for the Proposed Development.

Table 15-1: Schedule of Commitments

Chapter	Type of Mitigation or Compensation	Description
Chapter 2: Site Description and	Pre-construction (Design)	Design Principles
Design Evolution		 Within the EIA process, identification of constraints has been a continual activity throughout the design process. This ensures emerging findings from detailed surveys are acknowledged, allowing for adjustments to the Proposed Development as necessary. By integrating findings of technical and environmental studies into the design process, the Proposed Development can achieve a 'best fit' within its environmental context.
		 This approach has been adopted in respect of the Proposed Development. Where potentially significant effects have been identified, efforts have been made to avoid these by evolving the design of the Proposed Development. This is referred to within the EIA Report as 'embedded mitigation'. Information on embedded mitigation is explained further within each technical chapter of the EIA Report, as appropriate. Several design principles and environmental measures have also been incorporated into the Proposed Development as standard practice.
		- Embedded mitigation includes, but is not limited to:
		 considering the size and scale of the Proposed Development appropriate to the location.
		 use of existing tracks as much as is practicable and upgrading these to minimise groundworks.
		o design of access tracks to minimise cut and fill, reducing landscape and visual effects as well as costs.
		 sensitive siting of the proposed infrastructure incorporating appropriate buffer distances from environmental receptors (including nearby residential properties) to avoid or reduce effects.
		 considering appearance, finish and colour of wind turbines and the control buildings in accordance with the now NatureScot (NS) (formerly Scottish Natural Heritage (SNH)) guidance 'Siting and Designing Wind Farms in the Landscape', Version 3a (SNH, 2017).
		 potential for up to 100 m micrositing of infrastructure during construction to ensure the best possible locations are chosen based on site investigations.
	Construction (Micrositing)	Micrositing
		 During construction of the Proposed Development, there may be a requirement to microsite elements of the Proposed Development infrastructure. This is important for addressing any localised environmental sensitivities, unforeseen ground conditions or technical issues that are found during detailed intrusive site investigations and construction.
		 It is proposed that consent includes provision for a 100 m horizontal micro-siting allowance for the Proposed Development. Technical assessments in Volume 2, Chapters 5 – 14 of the EIA Report, have considered the potential for horizontal micro-siting. It is considered that the 100 m micrositing tolerance of turbines and all other infrastructure does not move into the watercourse buffers or other environmental constraints identified on-site or to a location where noise immissions exceed the noise limits at neighbouring receptors.
		 During construction, the need for any micro-siting within 50 m from the consented locations would be carried out under the supervision of the Ecological Clerk of Works (ECoW) (whose role is outlined in Technical Appendix 3.1 of the CEMP). Any changes within 50-100 m of the consented locations will require approval of Argyll and Bute



Chapter	Type of Mitigation or Compensation	Description
		Council (ABC) in consultation with NatureScot, Scottish Environment Protection Agency (SEPA) and Historic Environment Scotland (HES).
		 It is anticipated that the agreed micrositing distance may form a planning condition accompanying consent for the Proposed Development.
Chapter 3: Description of the	Pre- and During Construction	Construction Environmental Management Plan
Development	(CEMP)	 An outline CEMP is provided as Technical Appendix 3.1. In acknowledgement that the CEMP is a live document that would evolve throughout the construction phase of the Proposed Development, only the principles of the CEMP are outlined at this stage.
		 It is anticipated that submission and approval of a detailed CEMP, following site investigation works and further detailed design, would be a condition of the consent for the Proposed Development.
		 Reference to good practice and standards, guidelines and legislation relied upon in the assessment methodology are referred to within each of the individual specialist topics in Chapters 5-14. Such environmental measures are also included in the outline CEMP (Technical Appendix 3.1), the final version of which would be secured via planning condition.
	Construction (Good Practice	Good Practice Measures
	Measures)	 During the construction phase of the Proposed Development, effects will be further managed in line with the Construction (Design and Management) Regulations 2015 and as part of the detailed design process, taking into account the adoption of good practice, including Pollution Prevention Guidelines (PPGs) and replacement Guidance for Pollution Prevention (GPPs), supported by robust project management and an Ecological Clerk of Work (ECoW).
	Construction (Access)	Abnormal Load Access
		- The proposed abnormal load route required to transport turbine components to the Site is shown on Figure 10.1 and is based on an assessment from King George V Docks on the River Clyde via the M8 and M898 to cross the Erskine Bridge where the abnormal load will join the A82 westward to Tarbert. Loads will then join the A83 using a new bypass at Tarbert before joining the A815 to head south towards Dunoon. Loads will turn right onto the B836 and proceed westbound. After approximately 2 km, loads will turn into a new site access junction which is shown on Figure 3.26. Here the route mainly follows an existing forestry track into the Site. The route has been assessed for suitability; details of the full abnormal load route is shown on Figure 10.1.
		- Full detail of the assessment of effects on the road network is provided in Chapter 10.
	Construction (SWMP)	Site Waste Management Plan
		- A Site Waste Management Plan (SWMP) would be developed for implementation during construction, as discussed in the outline CEMP (Technical Appendix 3.1). This outlines the material requirements and waste generation during construction and how the Applicant intends to consider the management of these aspects.
	Construction (Construction	Construction Hours
	Hours)	 Construction working hours for the Proposed Development would be 07:00 to 19:00 Monday to Friday and 07:00 to 13:00 on Saturdays. It should be noted that out of necessity, some activities, for example abnormal load deliveries, concrete deliveries during foundation pours and the lifting of turbine components, may occur out with specified hours stated. These activities would not be undertaken without prior approval from ABC.

Chapter	Type of Mitigation or Compensation	Description
		- The Principal Contractor will also keep local residents informed of the proposed working schedule, where appropriate, including times and duration of any abnormally noisy activity that may cause concern, all under the terms of a traffic management plan as set out in Chapter 10.
	Post Construction (Access	Access Tracks
	Tracks)	 Approximately 10.2 km of on-site access tracks would be required to provide access to the wind turbines, substation, and construction compound. Where possible, the location of the access tracks follows existing forestry tracks. A total of approximately 6.4 km of new track would be created and approximately 3.8 km of existing track would be upgraded.
		 Tracks would be unpaved and constructed of a graded local stone with a typical running width of 5 m (wider on bends and at junctions). Nine construction traffic passing places would be required, in addition to crane hardstandings. Additionally, three turning heads would be constructed.
		 Figure 3.5 provides a typical illustration of the design of an on-site track; the design of tracks would take account of recognised good practice guidance as noted in Technical Appendix 3.1.
		 Where possible, sections of new tracks have been positioned to avoid areas of deepest peat. Micrositing will be used to minimise peat excavation during the construction phase.
		 It is proposed that track formation would be achieved by cut and fill or by a cut operation where there is a slope. Where the peat layer is more than 1 m in depth, and where there is a side slope, peat would be removed to an appropriate horizon. Any tracks located in deep peat will be 'floated' where feasible according to good practice guidance.
		 Tracks would be left in place following construction to provide access for maintenance, repairs, and eventual decommissioning of the Proposed Development. At the end of the construction period the edges of all new tracks would be restored using materials stripped from excavations.
		 There are five new watercourse crossings and seven existing watercourse crossings which may need to be upgraded subject to structural analysis at the detailed design stage. Locations of watercourse crossings are shown in Figure 3.1.
	Decommissioning (DRP)	Decommissioning and Restoration Plan
		 At the end of its operational life, which would be defined by condition on the grant of any consent, the Proposed Development would be decommissioned unless an application is submitted to extend the operational period or to repower the Site. The decommissioning period would be expected to take up to one year.
		- The ultimate decommissioning protocol would be agreed with ABC and other appropriate regulatory authorities in line with best practice guidance and requirements of the time. This would be done through the preparation and agreement of a Decommissioning and Restoration Plan (DRP) which would include development and implementation of a Decommissioning Environmental Management Plan in line with current legislation, guidance, policy at that time.
		- Financial provision for the decommissioning would be provided.
		- It is anticipated that the DRP would be the subject of a planning condition.
Chapter 5: Landscape and	Pre-construction (Design)	Landscape Guidance
Visual		 The Argyll and Bute Landscape Wind Energy Capacity Study (ABLWECS) does not envisage any further development of commercial scale wind farms (beyond the operational Cruach Mhor and Clachan Flats wind farms) in the host LCT1 Steep Ridgeland and Mountains, stating that "there is no scope to accommodate turbines > 50m



Chapter	Type of Mitigation or Compensation	Description
		high as additional new development in this landscape without significant effects occurring". It does not therefore provide detailed design advice in relation to development of the scale proposed.
		- Advice in terms of key design sensitivities include:
		 Seeking to avoid effects on views from the popular hill summits in the adjacent LCT2 High Tops and National Park. It is noted that the area around the head of Loch Fyne (which is around 30 km from the site) would be particularly sensitive in this respect.
		 Seeking to avoid direct or indirect effects on Ben Lui Wild Land Area. This area is located more than 35 km to the north of the site and would have no visibility of the Proposed Development as indicated by Figure 5.1.
		 Seeking to avoid cumulative visual effects on views around the head of Loch Fyne. As shown by Figure 5.1, the Proposed Development would be approximately 30 km from this area and not visible.
		 Seeking to avoid wind farm development diminishing the contrast between the lower rounded hills and more developed landscape on the south bank of the Clyde and the more rural, and steeper landscape of the Cowal Peninsula.
		- The siting of the Proposed Development performs well against three of the four criteria above, entirely avoiding the most sensitive areas identified. The site is not well-located in terms of the last criterion; however, it is not judged that the contrast described would be notably reduced by the Proposed Development. The key differences in terrain and degree of urban development between the two landscapes would still be readily perceived.
		Embedded Mitigation
		- Landscape and visual matters, including residential visual amenity, have been considered throughout the design of the project. Measures included within design to prevent or reduce landscape and/or visual effects include:
		 Moving turbines away from nearby homes to the north-west to reduce effects on residential visual amenity.
		 Seeking to avoid, as far as practicable, turbine bases being seen in front of the skyline in views from the east, albeit this aim had to be balanced against the need to avoid moving turbines too far to the north- west and other environmental constraints – particularly areas of deep peat.
		 A reduction in the number of turbines to facilitate aims described in the ABLWECS.
		 A reduction in tip height of the two turbines closest to Dunoon, Sandbank and other visual receptors to the east of the Site to mitigate effects on those receptors and ensure a more even composition in views across the Firth of Clyde.
		 Agreement of a reduced aviation lighting scheme with the Civil Aviation Authority (CAA) to minimise the number of lights required to 3 nacelle lights and no mid-tower lights.
		 Standard mitigation so that aviation lights reduce to 200 candela (from 2000 candela) in good visibility conditions (more than 5 km).
		 No specific landscape enhancement measures are proposed, but changes to improve habitats will provide incidental improvements in the condition of the landscape fabric of the Site.
	Operation (Lighting)	Aviation Lighting
		- The number of aviation lights has been minimised to three nacelle lights by agreement with the CAA.

Chapter	Type of Mitigation or Compensation	Description
		 Lighting requirements and embedded mitigation measures for the Proposed Development are described in section 5.7. Appendix 13.1 provides lighting results tables from each viewpoint.
Chapter 6: Ecology	Pre-construction (Design)	Embedded Mitigation
		 The following design considerations are implemented to avoid or minimise likely significant effects on ecological features:
		 Where possible, maintaining a minimum 50 m buffer between infrastructure and watercourses/waterbodies
		 Minimisation of water-crossings
		 Where possible, avoidance of habitats of conservation interest
		• The use of floating track construction methods where deep peat deposits cannot be avoided
		 A minimum 50 m blade clearance from areas of woodland habitats that provide commuting and foraging habitat for bats was observed through felling of areas of conifer plantation.
		 Avoidance of protected species resting sites (including buffers where appropriate).
	Pre-, During and Post-	Good Practice Measures
	construction (Good Practice Measures)	 In determining the potential significance of effects on ecological features, the assessment considers standard good practice measures, assumed to be in place for the duration of the construction process and during operation, where relevant.
		- Measures of relevance to the construction of the Proposed Development are described in Chapter 6 and include:
		 Habitats of conservation interest were a guiding feature of the design process. Figure 8.1.1 demonstrates that all infrastructure has been located within areas of shallowest peat, where possible. Consequently, the most valuable areas of habitats of conservation interest have been avoided, ensuring the most sensitive areas would remain intact, and the wider functionality of the Site's habitat assemblage would persist.
		 The Proposed Development infrastructure has been designed to avoid sensitive hydrological receptors by maintaining a minimum of 50 m distance from watercourses, waterbodies or water features.
		 Approximately 2.5 km of new track will be built as part of the Proposed Development. Where possible and where reasonably practical, tracks will be of a 'floating' design where peat is over 0.5 m deep. Where peat depths are below 0.5 m, standard tracks will be used. Whilst these general principles have been adhered to, the decision of what type of track to use has been determined on a case-by-case basis and, in addition to considering peat depths, the gradient of the terrain has also been taken into account. In total, approximately 150 m of new tracks will be of a floating design, with a further 3.8 km of existing track proposed for upgrade.
		 The assessment also assumes that the following measures would be adopted and implemented during the construction phase of the Proposed Development:
		 The development and implementation of a CEMP (see OCEMP in Appendix 3.1), which will be set out guidance on compliance with nature conservation legislation and policy. This will include:
		> the production of, and compliance with, a Pollution Prevention Plan (PPP) and adherence to guidelines on Pollution Prevention (GPP). This will include measures to control surface water

Chapter	Type of Mitigation or Compensation	Description
		and sediment management as well as fuel and materials storage which will significantly reduce the likelihood and severity of pollution events.
		> the production of, and compliance with, Construction Method Statements (CMS).
		the production of, and compliance with, a Ground and Surface Water Monitoring Plan (GSWMP)). This will include the application of appropriate buffers around watercourses, which will protect riparian habitat while reducing disturbance and the likelihood of pollution events.
		> the use of temporary access tracks and 'brash mats', or other appropriate methods, to reduce potential for soil erosion as appropriate.
		the production of, and compliance with, a Soil and Peat Management Plan (SPMP) (following the principles set out in the Outline Peat Management Plan (Outline PMP) presented in Appendix 8.1.
		> the production of, and compliance with, a Site Waste Management Plan (SWMP).
		> the production of, and compliance with, a Construction Traffic Management Plan (CTMP).
		 the production of, and compliance with, an Outdoor Access Management Plan (OAMP, Appendix 10.2)
		 A Biodiversity Enhancement Strategy (BES) is included in Appendix 6.5 and demonstrates how the Site's wider ecological value can be enhanced through targeted intervention.
		 The appointment of an Advisory ECoW to advise, monitor and report on compliance with relevant legislation, policy and project specific mitigation during construction. The ECoW will report directly to the applicant where immediate remediation or correction is required. The ECoW will be present during construction to provide on- site support and advice. The ECoW will provide regular reports which will be made available to all relevant site staff including the applicant. A detailed Scope of Works for the role will be agreed with NatureScot and ABC before construction commences.
	Pre-construction (Micrositing)	Micrositing
		- The application for consent includes a request for up to 100 m of micrositing tolerance for site infrastructure where ground investigation works and/or geotechnical surveys find ground conditions to be unsuitable for construction. Any micrositing of infrastructure will be based on a review of existing ecological data and the completion of pre-construction surveys, to take into consideration the potential for direct encroachment onto protected species features, sensitive habitats or indirect alteration of hydrological flows supporting sensitive habitats.
		 Any micrositing will also take into consideration any buffer distances on protected features identified following further pre-construction surveys. With these micrositing precautions and procedures in place, should micrositing be utilised, the significance of effect on ecological receptors will not be greater than those predicted within this assessment.
	Construction (Monitoring)	Monitoring
		 an Advisory ECoW would be appointed to monitor compliance with the CEMP and all other construction-phase environmental commitments. The ECoW's terms of reference would be established in consultation with stakeholders, prior the commencement of works.
Chapter 7: Ornithology	Pre-construction (Design)	Embedded Mitigation

Chapter	Type of Mitigation or Compensation	Description
		 The following considerations relating to ornithological interests have been incorporated into the Proposed Development design as embedded mitigation:
		 All golden eagle breeding sites recorded during baseline surveys have been buffered by more than 1400 m
		 The final turbine layout has been designed to minimise potential effects on golden eagle by avoiding the creation of turbine strings and outliers, and by maintaining a turbine cluster (Prospective guidance from Natural Research to NatureScot (NatureScot, 2021)).
	Pre-construction (Best	Bird Protection Plan
	Practice Measures and Birds)	 To conform with Best Practice Measures and the Wildlife and Countryside Act (WCA), surveys to locate nests of birds listed in Schedule 1 of the WCA and Annex 1 of the Birds Directive would be undertaken prior to construction operations during the breeding period as part of a Bird Protection Plan (BPP) which would be overseen by an ECoW. If it is judged that these activities are likely to disturb breeding attempts, then appropriate exclusion zones (Goodship & Furness, 2022) or other protection measures would be discussed with NatureScot prior to recommencing works.
		 Assessment has been undertaken on the basis that a Bird Protection Plan (BPP), devised in consultation with NatureScot, will be in place prior to the onset of construction activities. The BPP will describe survey methods for the identification of sites used by protected birds and will detail protocols for the prevention, or minimisation, of disturbance to birds as a result of activities associated with the Proposed Development.
		- The BPP will describe surveys to locate the nests or other key sites (e.g. roosts) of birds listed in Schedules 1 and 1A of the WCA, in advance of construction works progressing. In the event that an active nest or roost of a Schedule 1 or Schedule 1A species is discovered within distances given by Goodship & Furness (2022) (or within a 500 m radius for Schedule 1 species not listed), a disturbance risk assessment will be prepared under the BPP. The disturbance risk assessment will detail any measures considered necessary to safeguard the breeding attempt or roost (e.g., exclusion zones or restrictions on timing of works) and will be submitted to NatureScot before recommencing work. Similarly, although the species is not listed on Schedule 1, surveys to locate black grouse lek sites will be undertaken with potentially suitable habitats, and appropriate measures to safeguard relevant lek sites will be agreed with NatureScot (over and above those already included in the BPP, if necessary).
Chapter 8: Hydrology	Pre-, and During Construction	Avoidance of Sensitive Areas
	(Design)	- The proposed layout has been designed to avoid sensitive areas wherever possible. This includes adhering to appropriate separation distances from watercourses as much as possible and avoiding sensitive habitats on Site such as priority peatland, peat slide risk areas, Ground Water Dependent Terrestrial Ecosystems (GWDTEs), and areas of potential flooding.
		- Watercourses
		 In accordance with wind farm construction best practice guidelines and SEPA consultation advice, a 50 m buffer has been applied to watercourses and waterbodies visible on 1:10,000 mapping.
		 During the initial design phase, potential layouts were carefully considered to ensure that these watercourse buffers were adhered to where technically feasible. The original layout passed through an area of bog pool habitat resulting in a breach of the 50 m buffer. The layout was then redesigned to avoid these areas entirely.
		- Peatland and Potential Instability

Chapter	Type of Mitigation or Compensation	Description	
		0	The original Site layout considered was noted to pass through an area of deep peat and bog pool habitat. This would have potentially interfered with priority habitat. Additionally, the land surrounding T6 infrastructure was noted to have peat depths of up to 3 m. It was determined that the layout would need to be revised to avoid this area and as a result, T6 was moved.
		0	Access tracks previously travelled through the centre of the Site. Following Phase 1 and Phase 2 peat probing surveys, it was noted there were areas of deeper peat which should be avoided. With consideration for additional Site constraints, tracks were redirected to follow the eastern boundary of the Site where shallower peat was identified.
		0	A Peat Slide Risk Assessment was also conducted to ensure that infrastructure would not be placed in areas at risk and is outlined in Appendix 8.2.
		- GWDTE	
		0	SEPA's wind farm planning guidance states that a National Vegetation Classification (NVC) survey should be undertaken to identify wetland areas that might be dependent on groundwater. A NVC survey was conducted which identified areas of potential groundwater dependency. It is thought that several communities across the Site may have some reliance on groundwater.
		0	A 250 m buffer was applied to turbine foundations and infrastructure, and a 100 m buffer was applied to access tracks where there is potential for dewatering activities to disrupt these communities. Where possible, these habitats were avoided. Where infrastructure is sited upon these communities, further mitigation will be implemented to minimise impacts and includes measures such as micro-siting, use of floating tracks, and drainage controls designed to maintain local hydrological conditions.
		Pollution, Erosion	and Sedimentation
		- Clean Wa	ater Cut Off Ditches
		0	Clean water cut-off ditches are proposed for the access track and hardstandings at all turbines. This system will allow clean discharge from ground uphill of the track to pass into the ground downstream, to maintain existing conditions and prevent drying out.
		0	Ditches will be located on the 'high-side' of the relevant infrastructure and installed immediately ahead of construction. Stone check dams will be employed to slow water flow along the ditches.
		0	Surface runoff will be collected in the ditches and passed through regularly spaced dedicated piped culverts under the access track to reduce volumes of flows in the ditch and provide a more even redistribution on the downhill side.
		0	Discharge points will be designed to encourage sheet flow, rather than as a single point discharge, in order to slow and spread the flow and minimise potential scour. Clean discharge will thus infiltrate into the existing vegetation in close proximity to its origin.
		0	The presence of cut-off ditches will also restrict capacity build-up of infiltration trenches adjacent to the relevant infrastructure.
		- Access T	rack Sizing, Camber, and Cross-drains
		0	All tracks will be constructed with a camber sufficient to minimise ponding and prevent the track becoming a conduit for runoff. The track will be constructed using a relatively large aggregate size, enabling runoff to percolate through the track. A large aggregate size also minimises the amount of fine sediment in the construction material.

Chapter	Type of Mitigation or Compensation	Description
		 Low verges will be constructed, allowing surface water to drain naturally and diffusely. Any runoff will be collected in adjacent infiltration trenches.
		 Given that peat soils are dominant on the Site, access tracks will be floated where possible rather than cut into the soil to minimise the excavation of peat. On sections of floating tracks and infrastructure, the design approach taken is that water will be encouraged to shed, and to a lesser degree, infiltrate through the track and into the adjacent and underlying peat. To help achieve this, a relatively large aggregate size will be used, minimising the amount of fines present. Floated areas of track and infrastructure are outlined in Appendix 8.1
		- Infiltration trenches
		 Runoff will be collected in infiltration trenches running adjacent to infrastructure, where a series of check dams will slow flow and promote sedimentation. These features act as mini settlement ponds, providing the primary means of removing contaminants before runoff reaches the outfall location. Where an infiltration trench is not suitable to divert such run-off, V-Ditches with check dams will be installed alongside the hardstanding and access tracks to collect the runoff. The check dams will be constructed from clean, granular materials or straw bales. This will help sediments and pollutants to be filtered from the water and will also slow water flow along the ditches.
		- Water Crossings
		• There are five new water crossings required as part of the Proposed Development, and a further seven which are existing but will require upgrading. The locations of these are shown on Figure 8.1.
		 Water crossing one (WC1) requires a new crossing and is proposed to span the Allt na Criche within an area of forestry. Water crossings two to eight (WC2 to WC8) are associated with the existing forestry tracks and will potentially require some alterations such as widening. Water crossings nine to 11 (WC9 to WC11) span smaller tributaries of the Eas a Chailbeil and the Allt a Chromain, whilst water crossing 12 (WC12) spans the headwaters of the Allt a Chromain. All water crossings are expected to require a standard bottomless arch culvert, excluding WC12 which would require a flush crossing.
		 It is considered that a bottomless arch culvert would be required to maintain the integrity of the banks and minimise impacts on the local ecology. Bottomless arch culverts require no in-water construction activities and are also effective in maintaining natural river morphology and do not provide a barrier for fish movement. An indicative bottomless arch culvert design is shown in Drawing 1 of Chapter 8.
		 The proposed water crossings will be constructed as feasibly close to right-angles with the watercourse as possible, in accordance with standard practice set out in SEPA's Engineering in the water environment: Good Practice Guidance – River Crossings (2010). During construction of the crossings, existing water flow will be controlled by temporary pumping around the construction area to minimise disturbance and sediment pollution to the watercourse.
		 At WC12, the flush to be crossed is > 2 m in width. It is considered that a flush crossing would be more appropriate than a typical culvert crossing to prevent any interference with flow paths. This crossing will likely require Controlled Activities Licence (CAR Licence) (or replacement of environmental authorisation). A flush crossing culvert design is shown in Drawing 2 of Chapter 8.
	Construction and Post-	Tree Felling
	construction (Tree Felling)	- Upon felling, tree residues (i.e. needles, twigs and branches) will be left in situ to form brash material mats, which are effective in protecting the disturbed topsoil underneath and reducing erosion. This can also be used to form



Chapter	Type of Mitigation or Compensation	Description
		windrows for reforestation purposes after construction. The proposed strategy for forestry on the Site is outlined in Chapter 12.
	Construction (Excavations)	Excavations
		 Prior to excavations, an end-use will be identified for the excavated material and an appropriate storage solution determined accordingly. Stored materials will be kept away from surface water bodies to minimise the possibility for sediments entering the aquatic environment.
		 Soils will be stripped to avoid cross contamination between distinct horizons. Stripped materials will either be side- cast, stockpiled for use in the same area they are excavated from or stored in appropriately designed and clearly defined separate stockpiles for re-use elsewhere.
		 Given that peat soils are dominant on the Site, access tracks will be floated where possible rather than cut into the soil to minimise the excavation of peat. Given that the topography of the Site is steep in many areas, the potential to float tracks is limited.
		 A portion of access track to the east of T3 was identified as an area where the topography could accommodate floating. This section is approximately 150 m in length, the remaining tracks total 3.8 km.
		 Across the rest of the Site, where peat excavations are unavoidable, the resulting volume of excavated peat will be re-used on-site for redressing track, crane pad, and hardstanding verges. Any surplus peat will be used as part of a restoration programme.
		- Peat bunds may be used to help stop drainage from the surrounding peatland.
		- An Operational Peat Management Plan (OPMP) is outlined in Appendix 8.1 and a Peat Management Plan (PMP) will be submitted for approval prior to construction.
		 Where appropriate, temporary silt fences will be installed to filter runoff that is potentially carrying silt from excavations or stockpiles. This will be effective in protecting surface water quality in adjacent watercourses and eliminate the possibility for silt laden runoff to enter them.
	Construction (Reinstatement)	Reinstatement
		- Early reinstatement of excavated materials is required to minimise visual impact, to reduce time required for temporary storage/stockpiling of soils, and to encourage vegetation and habitat restoration as early as possible.
		 As far as is reasonably practical and achievable, excavated material horizons will be replaced in sequence and depths similar to those recorded prior to excavation, or similar to the surrounding undisturbed ground at the point of reinstatement.
		- Any detailed reinstatement and restoration proposals will consider and mitigate all residual risks to environmental receptors where practicable.
	Construction (Dewatering)	Dewatering
		 Dewatering shall be avoided where possible to minimise impacts on sensitive habitat. However, formation of the turbine foundations would likely involve dewatering to temporarily lower the water table and enable work in the excavated areas. Gravity foundations are proposed, which will limit depths of excavations and associated impacts.
		- Details of the pre-construction ground investigation will include an assessment of the ground permeability and water potential; the results will be used to inform any dewatering required on Site.

Chapter	Type of Mitigation or Compensation	Description
		 Where dewatering is required, it shall comply with the Abstraction Regime of CAR General Binding Rule (GBR) 2 and GBR 15, or any replacement regime.
		 Details of how dewatering will be managed shall be provided within a Construction Method Statement (CMS) prior to construction of the Proposed Development. Mitigating measures will include using an irrigation sprinkler head to maintain moisture in the upper soil horizons of nearby GWDTE; and, keeping the foundation construction duration as short as practicable. This will maintain a continuous water supply to sensitive habitats and minimise the overall impact of dewatering.
	Construction (Enhanced	Enhanced Sedimentation Control
	Sedimentation Control)	 To avoid potential impacts on sensitive habitats, any potential runoff will be appropriately treated prior to discharge into the natural environment. This will keep clean and contaminated runoff separate to avoid further contamination and maintain the sustainable urban drainage system (SuDs) capacity, which will mitigate the possibility of contaminants entering watercourses and impacting the aquatic environments.
		 These mechanisms of clean water cut-off ditches, sediment capture, and infiltration trenches, are intended to reduce the speed of flow, filter runoff, and allow suspended silts and particulates to settle out naturally thus minimising the potential impacts upon downstream aquatic environments, nearby PWS, or GWDTEs.
		 If the standard system is not proving to be effective, then a 'Siltbuster' system of control via settlement tanks will be employed. The 'Siltbuster' system is regularly used on construction sites situated close to waterways or in extreme situations where the combination of soil stripping and wet weather has given rise to normal silt control methods being overrun.
	Pre-, During and Post-	General Site Pollution Control
	construction (General Site Pollution Control)	 The proposed mitigation for the construction of the access roads will continue to function through the life of the project. Routine maintenance for the roads will be carried out in summer months when the tracks are dry. Operational good practice procedures will continue to be adopted, with the risk of water pollution from such activities considered to be negligible.
		 Regarding vehicles, fleet vehicles entering the Site will be regularly checked and maintained to prevent leakage of contaminants. Concrete will be premixed off-site and delivery wagons will only be washed out in areas where suitable control measures are in place. The concrete used will be of a high grade that is not prone to leaching alkalis. The number of on-site vehicles will be highest during construction. The ongoing risk of pollution on the Site after construction is considered very low.
		 Good practice procedures in the handling, use and storage of fuel, oils, and chemicals will be adhered to at all times.
		 Prior to construction, a Construction Environmental Management Plan (CEMP) and a Pollution Prevention Plan (PPP) will be put in place, and approved by ABC, following consultation with SEPA. These documents will outline mitigation measures to reduce or nullify potential impacts on the ground and surface water environment.
		- The CEMP and PPP will address the following issues:
		 Reinstatement and Restoration
		 Decommissioning
		 Contractor Duties
		○ Tool Box Talks

Chapter	Type of Mitigation or Compensation	Description
		 Pollution Prevention and Mitigation
		 Control of Substances Hazardous to Health (COSHH)
		 Pollution Monitoring & Controls
		 Site Waste Management Plan.
	During and Post-construction	Restoration
	(Restoration)	- Early reinstatement of excavated materials is required to minimise visual impact, to reduce time required for temporary storage/stockpiling of soils, and to encourage vegetation and habitat restoration as early as possible.
		 As far as is reasonably practical and achievable, excavated material horizons will be replaced in sequence and depths similar to those recorded prior to excavation, or to the surrounding undisturbed ground at the point of reinstatement.
		- Any detailed reinstatement and restoration proposals will consider and mitigate residual risks to environmental receptors, where practicable.
	Pre-construction (Monitoring)	Monitoring
		- Case specific measures will be put in place to maintain the baseline subsurface flow paths and avoid disruption to potential GWDTEs identified. Six months prior to construction, monitoring will commence to determine the baseline conditions. This will be used to ensure no significant changes to groundwater flow or groundwater chemistry occur.
Chapter 9: Cultural Heritage &	Pre-construction (Design)	Embedded Mitigation
Archaeology		 Potential direct physical effects on heritage assets within the Site have been considered throughout the design evolution of the Proposed Development. Where possible, impacts to heritage assets have been avoided or minimised through careful placement of infrastructure.
		 Potential significant direct setting effects upon designated cultural heritage assets out with the Site have been considered. Design evolution is detailed in Chapter 2.
		 Incorporating consultation feedback, an iterative design process has been implemented, with the evolution of design undertaken with reference to the HES Scoping Opinion and post-Scoping consultation.
		- The design taken forward for the Proposed Development limits the placement of turbines along the lower slopes of Strone Saul to the north and east in order to reduce potential setting effects on Assets 1 (Adam's Cave), 2 (Ardnadam) and 3 (Dunloskin Wood).
	Construction (Monitoring)	Watching Brief and Walkover Survey
		In line with best practice, mitigation measures for non-significant effects have been identified in Chapter 9 Although no significant direct physical effects resulting from construction works are anticipated, four non- designated heritage assets (Assets 161, 162, 163 and 164) are located within the alignment of the proposed access track. Based on this assessment, the post-medieval track (Asset 161) is located within the extent of the proposed access track. As such, it is expected that any remains surviving below the modern access track would be removed or truncated during construction works. The Applicant will subsequently contract a registered archaeological company to undertake a programme of watching brief.
		- The field boundaries (Assets 162-164) recorded on historical maps could not be confirmed during the walkover survey as the proposed access track follows the alignment of the existing access track for Sandback Forest and the heritage assets are likely to have been removed partially or wholly during construction of the access track and forestry plantation works. However, as there is some potential for survival, the Applicant will contract a registered

Chapter	Type of Mitigation or Compensation	Description
		archaeological company to undertake a programme of watching brief. In addition to ground-breaking works associated with construction works on the track, several areas of felling and replanting have been identified along the proposed access track and across assets 161 to 164. As such, the Applicant will contract a registered archaeological company to undertake a walkover survey following removal of the commercial forestry and prior to commencement of construction, restoration or enhancement works, or where this is not possible an archaeological watching brief during construction.
		 A possible cairn (Asset 105) was recorded 135 m to the south-west of Turbine 2 in an area identified for forest to bog restoration which would require the removal of unproductive plantation and blocking of drainage ditches. As such it is expected that this feature would be removed or truncated during restoration works. The Applicant will subsequently contract a registered archaeological company to mark out the location of the possible cairn, including a 5 m buffer to prevent any inadvertent damage. If this is not possible, the Applicant will undertake a programme of watching brief to record the cairn along with any associated remains.
		Preventative mitigations and the mitigation measures proposed also take account of the potential for hitherto unknown buried archaeological remains to survive within the Site. This assessment has identified a medium potential for prehistoric, early historic, medieval and post-medieval remains to survive within the Site, and a low potential for Roman and modern remains to survive within the Site. This assessment has identified that although there is a paucity of activity from any period within the higher grounds of the Site, there is a potential for remains to survive along the access track to the east and north-east facing slopes overlooking Holy Loch. As such, it is recommended that a watching brief should be undertaken on ground-breaking works within the extent of the access track and east-facing slopes of the Site to allow for the recording of any potential unknown buried remains. These mitigation works would ensure that any hitherto unrecorded remains are identified and excavated; this would ensure impacts were offset by ensuring preservation by record.
		 A sub-circular feature (Asset 106) recorded during the walkover survey at the top of Giant's Knowe may potentially relate to a prehistoric settlement and as such there is considered to be a higher potential for prehistoric remains to survive within this area. This area is located outside of the footprint of the Proposed Development, and no direct physical effect is anticipated.
		 Several areas have been identified for forest to bog restoration which would require the removal of unproductive plantation and blocking of drainage ditches. These areas were located within the extent of commercial forestry during the walkover survey and as such could not be surveyed. The Applicant will contract a registered archaeological company to undertake a walkover survey following removal of the commercial forestry and prior to commencement of restoration or enhancement works.
		 Potential restoration areas have been identified across the Site which may require the use of machinery or hand- digging. Although no heritage assets have been identified within these areas there remains the potential for as yet unknown assets to survive below ground. As such, the Applicant will contract a registered archaeological company to undertake a programme of watching brief.
Chapter 10: Traffic and	Construction (CTMP)	Construction Traffic Management Plan
i ransport		 During the construction phase Heavy Goods Vehicles (HGV) traffic levels are expected to increase by more than 90% on sections of the A815, and 70% on the B836. The following mitigation measures are proposed to mitigate the effects of increased construction traffic and reduce the significance of effect. These will be captured in the CTMP which can be made a condition during planning consent for the Proposed Development:
		 Site Access: preferred routes for HGVs to and from Site will be agreed with the local authorities.

Chapter	Type of Mitigation or Compensation	Description	
		0	Hours of Deliveries: typically, deliveries will fall between the construction hours of 07:00 to 19:00 on Monday to Friday, and Saturdays between 07:00 and 13:00. Deliveries will not take place on Sundays or Bank Holidays (unless agreed with ABC). The availability of Police Scotland will govern turbine component deliveries and may take place outside these times. Care will be taken to avoid local refuse collection, school bus movements, and events where practicable to minimise the impact on the local road network.
		0	Community Liaison Group: GB Wind Ltd ('the Applicant') will establish a Community Liaison Group (CLG) to facilitate dialogue between communities and the Project Team, for its construction sites. The CLG will operate throughout the construction phase. The purpose is for the Applicant and its contractors to provide updates on construction, minimise disruption and enable community representatives to ask questions and raise any issues.
		0	Loading and Unloading of Vehicles: where possible, all loading and unloading of vehicles will take place within the site boundary. There will be no requirement to use the highway at any point for loading/unloading.
		0	Temporary Warning Signage: on-site signage will consist of construction site signage at the Site entrance displaying the name of the Site and contractor. Temporary warning signage will be placed on the public road near the Site entrance to warn road users, cyclists, pedestrians, and equestrians of the nearby construction works.
		0	Traffic Control at Site: a one-way system will be constructed at the triangular area incorporating the B836/Core Path C223 (Access Track) to enable all vehicles to be forward-facing when exiting the Site and re-joining the public highway.
		0	Debris/Dust Control: all vehicles exiting the Site shall be checked for excess dirt and where necessary, wheels will be hand cleaned. The adjacent road shall be periodically inspected for debris on the public highway. Should a surplus of debris be noted, the contractor will endeavour to actively clean the road to ensure that the carriageway is kept clear throughout construction. If excessive quantities of dust are consistently arising from the development, water will be sprayed over the working areas to keep the dust down.
		0	Monitoring: the local road network shall be monitored throughout construction; where road sweeping is required it shall be undertaken, as necessary. Should issues with the condition of the road be noted, the Local Roads Authority shall be notified, and an agreement struck on how best to proceed.
		0	Roadworthiness: All vehicles will be kept in safe and efficient operational order, complying with the Roads Traffic Act Construction and Use Regulations. Vehicles should always contain a first aid kit and fire extinguisher. Any escort vehicles are to carry 6 x cones, 2 x emergency triangles and beacons. The regional police, who are anticipated to escort blades, nacelle and towers, will also have a provision of lights and cones in case of an accident. Special attention should be paid to the following vehicle requirements:
			 All lights must function correctly and be clean, including indicators, brake lights, flashing beacons, reversing lights (and alarms where fitted).
			 Steering and brakes must operate correctly and efficiently.
			> Tyres must be undamaged and have adequate tread depth remaining.
			 All mirrors must be correctly fitted, adjusted and unbroken.

Chapter	Type of Mitigation or	Description		
	Compensation			
			>	Suspension is maintained to a standard where noise (particularly when travelling empty) is minimised.
			>	Exhaust emissions should comply with all legal requirements.
			>	The vehicle is to be kept clean by regular washing.
		0	Road Im suitable legislatic and Tea to road in is remov	provements and Reinstatement Works: any damage to public roads will be mitigated through a agreement relating to Section 96 of the Roads (Scotland) Act and appropriate planning on - including the provision of an appropriate Road Bond or similar security (known as a Wear r Agreement) may be required. The detail would be finalised in the CTMP. Additionally, damage infrastructure caused directly by construction traffic would be made good and street furniture that ed on a temporary basis would be fully reinstated.
		0	Driver Co within sit given be	onduct: the Road Traffic Regulations and the advice given in the Highway Code will be included the health and safety documentation and distributed to all parties. A summary of key aspects is low:
			>	Driving to conditions. Speed will always be adjusted to varying road and weather conditions. Allowance will also be made for the potential of poor driving standards of other road users.
			>	Speed. Under no circumstances will the speed limit be exceeded. Extra care should be taken when passing villages and built-up areas. To further minimise the impact of heavy vehicles on the local population, speed restrictions on the Site should be adhered to.
			>	Driving etiquette. Care will be taken to drive considerately, minimising impact on other road users.
			>	Convoying. Where practicable grouping of HGVs will be avoided to ensure room for smaller vehicles to overtake easily without having to pass multiple vehicles at once.
			>	Reduce Noise. Efforts will be made to minimise noise from engines, suspensions and tipper bodies, particularly in villages and built-up areas, and especially in the early morning and late at night. Tailgate should be locked when running empty.
			>	Parking. Overnight parking will be off public highways, to avoid inconveniencing members of the general public.
			>	Work Legally. All drivers shall adhere to Hours Legislation and with the Tacho-graph Regulations.
			>	Routing. Approved routes to and from the delivery point will be used, and the use of narrow and hilly routes which are unsuitable for large vehicles should be avoided where practicable. Where the route restrictions are breached, penalties shall be applied at the Site manager's discretion.
			>	Safety. Reflective high-visibility jackets/waistcoats will be worn at all times on-site, at delivery points, or at the scene of a vehicle accident/breakdown.
			>	Accidents and Breakdowns. Site and delivery vehicles will carry details of breakdown procedures, and contacts to be used in the event of an emergency. At the scene of a road traffic accident (or vehicle breakdown), wherever possible, approaching traffic should be warned of the potential danger by use of warning triangles and traffic cones. Details (names

Chapter	Type of Mitigation or Compensation	Description
		and addresses) of any witnesses will be obtained, and emergency services should be contacted.
		 Emergency Services: throughout the construction programme, the Site manager will ensure access to the Site is not impeded and congestion does not occur. This will ensure traffic is not backed onto the main road and access is kept clear for emergency service use.
		- The Site Manager will deal with non-compliance, with disciplinary actions taken at their discretion.
	During Construction (Access	Access Management Plan
	Management Plan)	 An Outline Access Management Plan (OAMP) (Appendix 10.2) outlines measures to manage interactions between construction traffic, pedestrians, and cyclists within the Site. The OAMP will evolve into an Access Management Plan (AMP), implemented through a planning condition.
	Pre, During and Post-	Abnormal Indivisible Load (AIL) Route
	construction (AIL Route)	- The AIL Route Survey Report (RSR) highlights several pinch points on the proposed access route, which have been assessed within the report using swept path assessment software. The locations of the pinch points and the swept path drawings are included in Appendix 10.1.
		- The RSR identifies key issues along the route requiring mitigation works, including the temporary removal of street furniture, lighting columns, traffic signals, road signs, bollards, fences, and utility poles. Proposed measures also include traffic management, such as parking suspensions, vegetation trimming, load-bearing surfaces, and land profiling for potential tar wedges. Additionally, an upgraded access junction will be provided, subject to agreement with the road authorities and stakeholders.
		 AIL mitigation works can be designed to be temporary in nature to enable the restoration to their original condition (if required by the Council).
Chapter 11: Noise	Construction (CEMP)	Construction Environmental Management Plan
		 To reduce the potential impacts associated with construction noise, the following good practice measures are proposed and where appropriate, to be included in the Construction Environmental Management Plan (CEMP).
		 Works and operation of plant on Site are expected to be limited to daytime periods: Monday to Friday (07.00-19.00) and Saturdays (07.00-13.00). It is possible that, due to weather constraints, erection of the turbines could occur outside of the working hours defined, however will only take place outside these times with the prior approval of ABC and are not anticipated to give rise to significant noise levels outside the Site Boundary.
		 All construction activities shall adhere to good practice as outlined in BS 5228-1.
		 All equipment will be maintained and in good working order, operated and supervised by the appropriate parties.
		 Construction plant which may result in significant noise levels will be limited in duration to minimise disturbance at surrounding receptors.
Chapter 12: Forestry	Pre-, during and Post-	Embedded Mitigation (Guidance)
	construction (Design)	- The principal mitigation would be compliance with the Scottish Government's Control of Woodland Removal Policy and implementation of Compensatory Planting (CP) Guidance in providing CP for areas of woodland permanently removed for the Proposed Development. This CP would be undertaken on appropriate sites anywhere in Scotland



Chapter	Type of Mitigation or Compensation	Description
		that can deliver the equivalent woodland-related net public benefits to the woodland removed. Further embedded mitigation includes:
		 All forestry works, felling and replanting, to be carried out in accordance with the relative UK Forestry standard (UKFS) guidelines; and
		 Inclusion and implementation of the forestry operations as detailed in the CEMP.
Chapter 13: Aviation	Operation (Aviation Lighting)	Aviation Lighting – Reduced Lighting Scheme
		 Wind turbines with a tip height over 150 m are required to be illuminated with medium-intensity red aviation obstruction lights installed on the turbine hub in accordance with the CAA Policy Statement: 'Lighting of Onshore Wind Turbine Generators in the United Kingdom with a maximum blade tip height at or in excess of 150 m Above Ground Level'.
		 The Applicant provided a reduced lighting scheme that fulfils the requirements for flight safety whilst minimising environmental (visual) effects and gained approval from the CAA for the design (see Appendix 13.1 for details of the proposed mitigation). This sets out the arrangement of the aviation lights, together with an assessment of the intensity of the visible lights at selected viewpoints assessed in the LVIA (see Chapter 5: Landscape and Visual Impact Assessment), and provides an estimate of the percentage of time the lights will be at full power and at 10% intensity, based on historical Met Office records of visibility and cloudbase in the region.
		 Each turbine will be fitted with MOD specification infra-red lighting to mitigate effects on military low flying aircraft. These will not be visible to the human eye. The implementation of the proposed lighting scheme (both visible and infra-red) will be subject to a suspensive planning condition to the consent if granted.
Chapter 14: Other	Operation (Shadow Flicker)	Wind Farm Shadow Flicker Protocol
Considerations		 At all properties assessed, it has been demonstrated that predicted shadow flicker from the Proposed Development will be below the threshold of significance of 30 hours of flicker per year. As such, no mitigation for the Proposed Development is proposed.
		 Should shadow flicker be problematic in practice, turbines can be fitted with a shadow stop system that can be programmed to automatically shut down when environmental conditions are conducive to shadow flicker at affected properties. This means the turbine would be equipped with a light level sensor, used to ensure the turbine shuts down during periods of sufficient light to generate shadow flicker.
		 Shadow flicker impacts could be managed through a suitable planning condition that requires a mitigation scheme to be submitted to, and approved by, the local Planning Authority in response to a reasonable complaint.
	Construction and Operation (Carbon Balance)	Carbon Balance Embedded Mitigation
		 An iterative design approach was taken for the layout of the Proposed Development. Therefore, turbines and associated infrastructure were placed to avoid deep areas of peat and watercourses, as well as utilising existing infrastructure where possible.
		 Chapter 8 – Hydrology, outlines measures to be taken to mitigate water pollution and flood risk during construction activities.
		 Appendix 8.1 – OPMP has been prepared as part of the EIA submission. This provides details of how peat will be excavated on Site, characteristics of peat that could be excavated, and outlines suitable methods for reusing and managing excavated peat in line with good practice methods. This document should be considered a live document throughout the development phase. As such, additional information may be incorporated based on the results of any further investigations carried out as part of the detailed design process.

Chapter	Type of Mitigation or Compensation	Description
		 To mitigate potential effects during the construction phase, a comprehensive CEMP will be prepared and implemented ahead of construction commencement. This will outline a range of best practices (e.g. efficient processing and reuse of all reclaimed materials on-site whenever feasible).
		 By incorporating training and contractual obligations, the project aims to uphold the highest standards of environmental protection and water management throughout the construction phase. This approach underscores the Proposed Development's commitment to minimising its environmental impact and ensuring responsible construction practices.
		 The Proposed Development is expected to have a beneficial effect on climate change in terms of offsetting greenhouse gas emissions and no adverse effects are predicted. Therefore, no additional mitigating actions are proposed.
	Construction and Operation	Battery Storage Fire Safety
	(Major Accidents and Disasters)	 Safety measures would be incorporated within the proposed Battery Energy Storage System (BESS) facility to minimise risk of fire and contamination to surface water receptors. The BESS compound would be constructed with an impermeable lining and with stormwater storage provided above this. This will include an automatic fire suppression system with a control point or shut off valve so that in the unlikely event of a leak or pollution event occurring it can be retained within this area. Contained pollution or firewater would be pumped to a tanker and removed from the Site for treatment and disposal at a suitable licenced facility.
		 The Applicant will comply with all relevant laws and regulations concerning fire safety. In their decision notice for Shetland Battery Energy Storage System (BESS) dated 21 February 2024 under application reference ECU000048812, the Scottish Ministers stated that "Fire precautions and matters relating to health and safety are covered by other legislation, are regulated by the Health and Safety Executive (HSE), and such considerations are not material to the application."
	Construction and Operation	Public Safety and Access
	(Population and Human Health)	 The Renewable UK Onshore Wind Health and Safety Guidelines (2015) note that wind farm development and operation can give rise to a range of risks to public safety including:
		 traffic (especially lorries during construction, and abnormal loads for the transport of wind turbine components; including beyond the site boundary)
		 construction site hazards (particularly to people entering the Site without knowledge or consent of the Site Management)
		 effects of catastrophic wind turbine failures, which may on rare occasions result in blade throw, tower topple or fire
		 ice throw, if the wind turbine is operated with ice build-up on the blades.
		 The RenewableUK guidance (2015) states that "Developers should ensure that risks to public safety are considered and managed effectively over the project lifecycle and should be prepared to share their plans for managing these risks with stakeholders and regulators; effective engagement can both build trust, and help to reduce the level of public safety risk by taking account of local knowledge".
		 Site security and access during the construction period would be governed under the Health and Safety at Work Act 1974 and associated legislation. During construction, measures would be required to ensure that the public understand that restricted access to the forestry tracks would be in place throughout the works. There is no option for alternative access in place of the Core Paths due to the presence of forestry and limited alternative routes within the area. Plans for temporary access management, including traffic management and access restrictions, would be

_

Chapter	Type of Mitigation or Compensation	Description
		communicated with the public prior to taking place, where feasible. The Applicant will aim to keep all access restrictions to a minimum. The Applicant is committed to safeguarding the safety of members of the general public, whilst also ensuring that construction progress is not compromised.
		 An Outline Access Management Plan (AMP) is provided in Technical Appendix 10.2 with the final version of the AMP to be agreed with ABC in advance of construction.
		 During operation, the Site would be open to the public. Appropriate warning signs would be installed concerning restricted areas of the Site such as the substation compound, BESS, switchgear and metering systems. All on-site electrical cables would be buried underground with relevant signage.
		Construction Health and Safety
		 With regard to risks and accidents during the construction phase, the construction works for the Proposed Development would be undertaken in accordance with primary health and safety legislation, including the Health and Safety at Work Act 1974 and the Construction (Design and Management) (CDM) Regulations 2015 which will include a requirement to produce emergency procedures in a Construction Phase (Health & Safety) Plan in accordance with the Regulations.
		 Nonetheless, the risk of accidents is covered where relevant in individual topic chapters, for instance, the potential for environmental incidents and accidents such as spillages and flood risk are considered in Chapter 8. Good practice measures to prevent incidents and spillages are set out in the outline CEMP.
		Extreme Weather
		 As far as the risk of turbine failure during high winds is concerned, the turbines would cut-out and automatically stop as a safety precaution in wind speeds over 25 m/s.
		Wind turbines can be susceptible to lightning strike due to their height. As such, appropriate measures are taken into account in the design of turbines to conduct lightning strikes down to earth and minimise the risk of damage to turbines. Occasionally however, lightning can strike and damage a wind turbine blade. Modern wind turbine blades are manufactured from a glass-fibre or wood-epoxy composite in a mould, such that the reinforcement runs predominantly along the length of the blade. This means that blades will usually stay attached to the turbine if damaged by lightning, and in all cases, turbines will automatically shut down if damaged by lightning.
		- Ice build-up on blade surfaces occurs in cold weather conditions. Wind turbines can continue to operate with a very thin accumulation of snow or ice but will shut down automatically as soon as there is a sufficient build up to cause aerodynamic or physical imbalance of the rotor assembly. Potential icing conditions affecting turbines can be expected two to seven days per year (light icing) in Scotland (WECO, 1999). In the event a turbine is shut down during conditions suitable for ice formation, there is potential for ice throw to occur after start-up. There are monitoring systems and protocols in place to ensure that turbines that have been stationary during icing conditions are re-started in a controlled manner to ensure public safety. The risk to public safety is considered to be very low due to the few likely occurrences of these conditions along with specific conditions that can cause ice throw.
	Construction (Air Quality)	 Air Quality Construction activities can result in temporary effects from dust if un-managed. This can result in nuisance effects such as soiling of buildings and, if present over a long period of time, can affect human health. As the nearest property is over 500 m away from any substantial construction works (substation compound), effects associated with dust or vehicle emissions are considered unlikely, therefore, the effects of dust and vehicle emissions from the construction, operation and decommissioning of the Proposed Development was scoped out of this assessment.

Chapter	Type of Mitigation or Compensation	Description
		 A Dust Management Plan is included within the outline CEMP which sets out mitigation measures to be implemented on-site including for site activities and the movement of construction traffic along with regular monitoring activities to ensure that dust resulting from construction of the Proposed Development is adequately controlled.



15.3 Enhancement Commitments

- 15.3.1 Table 15-2 sets out the schedule of enhancement committed to by the Applicant through the Biodiversity Enhancement Strategy (BES) (Technical Appendix 6.5). A final BES would be agreed through an appropriately worded planning condition.
- 15.3.2 A Steering Group and Review Committee (SGRC) comprising NatureScot, ABC, and the operator of the Proposed Development (and others) would be set up to oversee the effectiveness of the final BES.

Table 15-2: Schedule of Enhancement Commitments

Type of Enhancement	Enhancement Measure(s)		
Ecological	 The BES (located within Appendix 6.5) seeks to establish broad habitat interventions that will compensate for effects of the Proposed Development and improve the overall ecological status of the Site. Prescriptions include: 		
	 Restoration of eroded peatland within the Site, as compensation for losses of priority peatland habitats, using a variety of techniques appropriate and sensitive to the nature and scale of targeted restoration areas 		
	 Forest-to-bog restoration, to remove unproductive plantation from blanket bog habitats. This will include blocking drainage ditches to 're-wet' the bog 		
	 Regeneration management, to reduce encroachment of regenerating conifers onto forest-to-bog restoration areas 		
	 Riparian and non-riparian planting using native broadleaved species. Planting will comprise a combination of continuous and discontinuous shrub and tree- dominated areas. As per best practice, trees will not be planted on peat >0.5 m 		
	 Restoration and enhancement of Ancient Woodland areas classified as Plantation on Ancient Woodland Sites (PAWS) (currently planted with Sitka spruce) through replanting with native tree species 		
	 Boxes for pine marten and red squirrel 		
	 Grazing management, to monitor and design appropriate grazing management techniques post-consent 		
	 Measures to enhance habitats, and therefore foraging resources, for a number of upland bird species, including golden eagle and black grouse. 		
Ornithological	 Peatland restoration will improve the quality and diversity of bog habitats providing suitable habitats for a range of bird species including golden eagle. It will also improve the quality of suitable habitat for a range of mammal and reptile species, which in turn optimises the prey availability for golden eagle. 		
	 Planting of broadleaved and riparian woodland will provide benefits for a range of upland bird species including black grouse, which in turn will optimise the prey availability for golden eagle. Annual monitoring will be undertaken to check the effectiveness of habitat management for golden eagles, including monitoring of breeding success. 		
	 The following habitat enhancement measures, detailed within the BES (Appendix 6.5), are predicted to provide positive biodiversity enhancement for the benefit of bird species: 		
	 81.31 ha of peatland restoration proposed (infilling peat 13.15 ha, reprofiling of eroded peat and drain blocking 46.59 ha, and forest-to-bog restoration 21.60 ha 		
	 A search area of 28.1 ha of riparian planting 		
	 A search area of 53.6 ha of non-riparian planting 		
	 Restoration of peatland and the increase in native woodland from commercial woodland, would, over time, have benefits in terms of general biodiversity. The diversity of flora and fauna would improve, and the area is likely to become ecologically richer. 		
	 Monitoring of the location and breeding performance of eagle species within 6 km of the Proposed Development would be commissioned, and would continue prior to, during, and after construction to enable a 'before and after' assessment to be made. Further information on bird monitoring is provided in the BES for the Proposed Development in Appendix 6.5. 		
	 To increase our understanding of the effects of wind farms on golden eagles, and to evaluate the effectiveness of habitat enhancement measures for golden eagles, it is proposed to satellite tag one or both of the territory-holding golden eagles. Data from satellite tags would be supplemented with annual monitoring of breeding success of the territory-holding pair. Further information on satellite tagging is provided in the BES for the Proposed Development in Appendix 6.5. 		

Type of Enhancement	Enhancement Measure(s)		
Hydrology	 Enhancement works such as habitat reinstatement and improvements to drainage features, are expected to have localised positive effects on surface water management within the Site by improving resilience of natural drainage pathways and reducing the risk of sedimentation and erosion by stabilising exposed surfaces and re-establishing vegetated cover. 		
	 Compensatory planting (See Chapter 12) is not anticipated to significantly alter the wider hydrological regime due to the limited area affected. Localised improvements to water retention and infiltration may occur over time where planting replaces compacted or degraded soils. This may help regulate runoff rates and promote more stable flow conditions downstream. 		
Forestry	 Enhancement of the Ancient Woodland Inventory temporary felled areas is proposed with 0.74 ha restocking with native broadleaved trees rather than non-native conifers present on-site. The remaining temporary felling would be with productive conifers as proposed in the forest owners' Long-Term Forest Plan. The replanting is shown on Figure 12.4. 		

15.4 References

Goodship, N.M. & Furness, R.W. (2022). Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. A report from MacArthur Green to NatureScot.

NatureScot. (2021). NatureScot statement on modelling to support the assessment of forestry and wind farm impacts on golden eagles. Available at https://www.nature.scot/doc/naturescot-statement-modelling-support-assessment-forestry-and-wind-farm-impacts-golden-eagles

Scottish Natural Heritage (2017). *Siting and Designing Windfarms in the Landscape Version 3a*. Available at: https://www.nature.scot/sites/default/files/2017-

11/Siting%20and%20designing%20windfarms%20in%20the%20landscape%20-%20version%203a.pdf. Accessed on 13 February 2025.

Tammelin, B., Böhringer, A., Cavaliere, M., Holttinen, H., Morgan, C., Seifert, H., Säntti, K., & Vølund, P. (2000). Wind energy production in cold climate (WECO). Finnish Meteorological Institute.

