Chapter 17: Schedule of Commitments

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17 Schedule of Commitments

17.1 Introduction

- 17.1.1 The Schedule of Commitments provides:
 - a summary of mitigation and compensation measures (**Table 17-1**) 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 17-2) committed to as part of the Proposed Development as outlined in the outline Nature Enhancement Management Plan (oNEMP) (Technical Appendix 8.5). and outline Outdoor Management and Enhancement Plan (Technical Appendix 14.2). These measures do not form part of the mitigation, but provide enhancement in addition to the measures outlined in Table 17-1.
- 17.1.2 Mitigation measures applied during the 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.
- 17.1.3 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). The detail of this is 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 17-1**.

17.2 Mitigation Commitments

17.2.1 **Table 17-1** sets out the schedule of mitigation committed to by the Applicant for the Proposed Development.

Table 17-1: Schedule of Mitigation Commitments

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
Chapter 2: Site Description	Construction	Micrositing
and Design Evolution	(Micrositing)	 In order to be able to address any localised environmental sensitivities, unexpected ground conditions or technical issues that are found during detailed intrusive site investigations and construction, it is proposed that the consent includes provision for a 100 m micrositing allowance for the Proposed Development.
		 It is considered that the Proposed Development could be microsited within 100 m without resulting in potential significant effects, except within watercourse buffers or where notable deep peat is identified. Within this distance, any changes from the consented locations of greater than 50 m would be subject to approval of the Environmental Clerk of Works (EnvCoW) and other relevant consultees (e.g. The Highland Council (THC), SEPA, NatureScot) as required and in consideration of other known constraints.
		 It is anticipated that the agreed micrositing distance is likely to 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)	 Good practice measures and mitigation will be implemented during construction to avoid and reduce impacts. An outline CEMP is provided as Technical Appendix 3.1. In acknowledgement that the outline CEMP is a live document that will evolve throughout the construction phase of the Proposed Development, only the principles of the outline CEMP are outlined at this stage.
		 The final CEMP will be secured through a suitably worded planning condition.
	Construction (Access)	Abnormal Load Access
		 The proposed abnormal load route has been assessed and verified, identifying where permanent or temporary road upgrades would be required (Figure 13.1 and Technical Appendix 13.1).
		 The abnormal load route will be set out in the final Construction Traffic Management Plan (CTMP) (the matters that could be covered in a CTMP are listed within Chapter 13) and would be secured by a suitably worded planning condition.
	Construction	Site Waste Management Plan
	(SWMP)	 A Site Waste Management Plan (SWMP) would form part of the final CEMP and will be developed for implementation during construction, as discussed in the outline CEMP (Technical Appendix 3.1). This will outline the material requirements and waste generation during construction and how the Applicant intends to consider the management of these aspects.
		 The SWMP will be included within the final CEMP.
	Construction Be (Borrow Pits)	Borrow Pit Search Areas
		 Three borrow pit search areas have been identified on-site, to provide aggregate to construct the Proposed Development.
		 Quarrying of these borrow pits to the fullest extent would provide a greater volume of rock than would be needed for the construction of the Proposed Development, but the identified search areas are sized on a precautionary basis so

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
		as to allow for the current uncertainty of the quality of the rock at these locations. It is the aim of the Applicant to source as much of the rock as possible from on-site, as this would minimise the need to transport large quantities of aggregate.
		 For purposes of the traffic and transport assessment, it has been assumed that all aggregate would be imported to site. This will provide a worst-case assessment of traffic movements as a result of the Proposed Development. It is however likely that a high proportion of aggregate would be sourced from the on-site borrow pits.
		 A Borrow Pit Assessment is included as Technical Appendix 3.2, and measures for the management of the borrow pits would be included in the final CEMP.
	Construction	Construction Hours
	(Construction Hours)	The construction working hours for the Proposed Development would be 08:00 to 19:00 Monday to Friday and 08:00 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 also the lifting of the turbine components, may occur outside the specified hours stated. These activities would not be undertaken without prior approval from THC. The principal contractor would keep local residents informed of the proposed working schedule, where appropriate, including the 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 13 of the EIA Report.
		 Construction working hours will be set out in the Construction Traffic Management Plan (CTMP) and would be secured by a suitably worded planning condition.
	Construction	Good Practice Measures
	(Good Practice Measures)	 During the construction phase of the Proposed Development, effects will be further managed in line with the Construction (Design and Management) CDM 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 Environmental Clerk of Works (EnvCoW). The role of the EnvCoW is defined in the outline CEMP (Technical Appendix 3.1).
		 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 7 to 16. 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.
	Post Construction	Access Tracks
	(Access Tracks)	 The 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.
		 This will be secured within the CEMP.
	Decommissioning	Decommissioning Restoration and Aftercare Strategy
	(UKAO) _	 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 THC 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 an interim Decommissioning Restoration and Aftercare Strategy (DRAS).

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
		 Financial provision for the decommissioning would be provided. It is anticipated that the DRAS would be the subject of a planning condition. The final detailed DRAS would reflect the relevant legislation, and best practice current at the time of decommissioning and restoration.
Chapter 7: Landscape and	Design	Embedded Mitigation
Visual		 The nature of landscape and visual effects means that landscape and visual mitigation is embedded into the design of the Proposed Development. The site selection rationale and the iterative design process is described in Chapter 2: Site Description and Design Evolution and in the Design Statement for the Proposed Development.
		Effect on Wild Land Area (WLA) 29
		 The assessment of effects on wild land indicates that the Proposed Development is likely to result in a localised significant effect on WLQ1 where it is expressed in the "high rounded hills and plateaux" in the south-western part of the WLA. This significant effect will arise as a result of visibility of the Proposed Development, as it will not have direct physical effects on the WLQ.
		 Whilst removing all visibility from the WLA is not possible, the Proposed Development has been specifically designed to mitigate and minimise its effect on the WLA as a whole. Mitigation (including mitigation by siting and design) is of key importance in the accommodation of the Proposed Development on the periphery of the WLA without an unacceptable effect on the overall integrity of the WLA.
	Operation	Aviation Lighting
	(Lighting)	 Only four of the nine proposed Turbines will be visibly lit: Turbine 1, Turbine 4, Turbine 7, and Turbine 9; each having medium intensity 2000 candela (cd) steady red lights on the the hubs (plus back-up light), that can be dimmed to 10 % when visibility exceeds 5 km. No tower lights are proposed.
		 Agreed mitigation includes the reduction of intensity of the lights during conditions of clearer visibility, such that the lights will only operate at full intensity of 2000 cd when visibility is less than 5 km; at other times they will be at 10 %, i.e. 200 cd.
		In addition to dimming mitigation, a reduction in lighting intensity may also be achieved through vertical directional intensity mitigation. This is achieved through the use of a light that has a reduced lighting intensity dependent on the degree of the vertical angle of view from the light in relation to landform. It is important to note that the vertical directional intensity mitigation figures are provided as an illustrative example, and the Applicant has not committed to using this specific light, as this choice is normally made at turbine procurement stage.
Chapter 8: Ecology	Pre, during and post	Monitoring
	Construction (FMP)	 Monitoring would be undertaken during construction in accordance with the CEMP in relation to pollution prevention measures and also fish and water quality monitoring.
		 A Fish Monitoring Plan (FMP) will be implemented to record pre-, during and post- construction fish populations in watercourses on and adjoining the site, in consultation with statutory consultees.
		 The fish (and water quality) monitoring plan would also be established and incorporated into the CEMP. The aim of the monitoring plan would be to review and where necessary, update baseline conditions prior to construction works commencing and to continue throughout the construction and operational phases to confirm that the mitigation measures with respect to fish populations, water quality, sedimentation and maintenance of potential fish passages are performing
		 Measures to protect fish during construction of watercourse crossings will be included in the CEMP.

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
	Pre-construction	Buffers to Ecological Receptors
	Design	 The layout of the Proposed Development has adopted a minimum 50 m¹ 'stand-off' distance from bat habitat features and turbine blade tips in accordance with NatureScot guidance.
		 A minimum 50 m buffer (from blade tip) from all trees/structures with bat roost potential has been maintained, in the event bat roost establishment may occur between baseline surveys and the commencement of operation and because woodland edges may act as a commuting/foraging corridor for bats.
		 A minimum 30 m buffer between turbine locations, track and infrastructure, and 100 m buffer between borrow pit locations, and the potential badger setts has been included in accordance with current good practice mitigation outlined in NatureScot guidance.
		 Although no water vole burrows were recorded on site during field surveys, a minimum 10 m buffer between the Proposed Development and the water vole latrines has been included.
	Pre-Construction	Pre-Construction Surveys
	(Surveys)	 Pre-construction surveys for protected terrestrial mammals including badger, otter, pine marten, red squirrel, water vole and Scottish wildcat will be undertaken, within a defined period prior to the commencement of construction works and as set out within the outline CEMP (Technical Appendix 3.1).
		 This will cover all areas within 250 m of the Proposed Development and associated working areas, following guidance applicable at the time of survey.
		 The results of the pre-construction surveys will inform the need for further mitigation (if required) in respect of sensitive working practices, Species Protection Plans (SPPs) and/or the requirement to consult with NatureScot in relation to any protected species licensing.
		 Pre-construction surveys would be implemented via a suitably worded planning condition.
	During Construction	Good Practice Measures
	(Good Practice Measures)	 The CEMP will include all good practice construction measures, pollution prevention controls, dust suppression and prevention measures, sediment management and sensitive techniques with regards to construction in peatlands and in/near watercourses to be implemented over the course of the construction of the Proposed Development in line with current industry and statutory guidance.
		 The CEMP will include information on water quality monitoring during the construction phase of the Proposed Development.
		 The CEMP will also include a commitment to not undertake nocturnal works using artificial lighting, which could otherwise adversely affect foraging/commuting bats.
		 Good practice measures to protect retained habitats during the construction works will also be implemented, including the sensitive demarcation of working areas, to be overseen by an Ecological Clerk of Works (EcoW).
		 The CEMP will include Habitat Specific Protection Plans (HSPPs) detailing good practice measures for construction works within Annex 1, SBL or potential GWDTE habitats. HSPPs will detail measures required to manage construction works within these sensitive habitats and include habitat reinstatement measures.
		 To minimise damage or alteration in pH from leaching of cement or other alkaline building materials into sensitive wet acidic habitats (blanket bog, valley mire and acid grassland), where groundwater is encountered in the excavation for

¹ Micrositing will take these required buffers into account.

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
		the turbine bases, the excavation will be lined with an impermeable membrane to prevent seepage of cementitious material into the sub-soil.
		 Good practice measures to prevent harm to faunal species will also include SPPs and the careful storage of potentially dangerous substances or materials within construction compounds. Excavations will either be temporarily covered outside working hours or, if excavations are left open, boards will be positioned so that any animal can escape.
		 Good practice habitat reinstatement measures will also be adopted and implemented in areas subject to disturbance during construction works as soon as it is practical to do so. Further details of habitat reinstatement measures to be implemented will be provided within the CEMP with habitat enhancement measures provided within the oNEMP (see Technical Appendix 8.5).
	During Construction	Ecological Clerk of Works (EcoW)
	(ECoW)	 A suitably qualified ECoW will be employed for the duration of the construction and reinstatement periods, to ensure ecological interests are safeguarded, although this may not necessarily be a full-time role throughout. The role of the ECoW related to ecological work will include the following tasks:
		 provide toolbox briefings and information to all staff on-site, so staff are aware of the ecological sensitivities within the site and the legal implications of not complying with agreed working practices;
		 agree and monitor measures designed to minimise damage to retained habitats;
		 undertake pre-construction surveys and advise on ecological issues and working restrictions where required;
		 complete site-supervision works as required, in relation to sensitive habitats and protected species;
		 report to THC any material breaches of the CEMP (if encountered); and
		 oversee restoration of working areas following construction.
		 This will be secured within the outline CEMP.
	During Construction and	Deer Management Statement (DMS)
	Operation (DMS)	Any requirement for wild deer management is assumed to be undertaken by the landowner. As such, there would be a commitment on the Applicant to liaise with the landowner to ensure that ongoing deer management activities take account of the construction and operational phases of the Proposed Development, with wild deer to be managed on-site as per the status quo.
		The requirement for a DMS for the site would be discussed with the landowner. If the requirement for a DMS is identified through habitat monitoring, the DMS would be agreed in consultation with the landowner and adjacent interested parties, to maintain deer populations on-site and in the wider area (including the Ben Wyvis SAC) at an optimal, sustainable level, ensuring adverse effects on habitats therein are not increased above the current baseline levels.
		 The Applicant would accept a Planning Condition to produce a DMS, if the Proposed Development is consented, to ensure deer management is maintained at a sustainable level to avoid any potential increased adverse effects on qualifying features of the Ben Wyvis SAC.
	During Operation	Operational Management Plan (OMP)
	(OMP)	 Direct effects for sensitive ecological features are not anticipated to occur during the operational period of the Proposed Development with good practice measures in place, including pollution prevention controls and operational vehicles keeping to defined access tracks. The on-site speed limit of 15 mph will also be adhered to, to reduce the risk of direct collision between wildlife and vehicular traffic.

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
		 These measures will be set out in an Operational Management Plan (OMP).
	During Operation	Precautionary Mitigation
	(Wind Turbines and Bats)	 Precautionary mitigation in the form of pitching the blades out of the wind ("feathering") to reduce rotation speeds below 2 rpm while idling, as detailed in Joint Agencies Guidance (2021) will be implemented. The reduction in speed resulting from feathering compared with normal idling may reduce bat fatality rates by up to 50 % (Joint Agencies Guidance, 2021).
		 Feathering would therefore be implemented using automated Supervisory Control and Data Acquisition (SCADA) data for the lifetime of the Proposed Development.
	Post Construction / Operation	Peatland Compensation
	(Peatland)	 A total of 24.76 ha of peatland of possible national interest may be permanently lost as a result of the Proposed Development; 10.722 ha direct and 14.038 ha indirect resulting from the wind turbine infrastructure.
		Up to 270.59 ha of peatland on-site has been identified for restoration as compensation (and enhancement), referred to as Peatland Restoration Search Areas. This includes areas which have been subject to some level of unfavourable management, particularly such as through the creation of drains, together with areas subject to encroachment by scrub/conifer saplings, and erosion and/or hagging. Enhancement measures are referenced separately in Table 17-2.
		 This compensation would be secured via a suitably worded planning condition.
	Decommissioning	Decommissioning Restoration and Aftercare Strategy (DRAS)
		At the point of decommissioning, an interim Decommissioning Restoration and Aftercare Strategy (DRAS) will be developed through consultation with THC, SEPA, Transport Scotland and other relevant consultees in line with relevant legislation and guidance at that point in time. This will detail those measures to be adopted to ensure the protection of key ecological features. This will typically mirror those measures adhered to in the CEMP and will include pollution prevention protocols and pre-decommissioning surveys.
Chapter 9: Ornithology	Pre-Construction	Design
	(Design)	 The design of the Proposed Development considered the presence of black grouse lek sites (particularly those used in multiple years), with all turbines being located greater than 750 m from identified lek sites.
		 The Proposed Development was also sensitive to the presence of a ptarmigan breeding territory on the highest land on-site (recorded in both survey years), with all turbines being located greater than 750 m from the identified ptarmigan breeding territory.
		The modest number of breeding territories for most ground-nesting wetland species (curlew, golden plover and oystercatcher) are located a greater distance from the turbines (respectively 980 m, 670 m and 1.65 km, at their closest), than the documented upper disturbance limits for these target species (300 m for curlew, 500 m for golden plover and 100 m for oystercatcher.
		The proposed turbines have also been appropriately offset from habitat features including woodland edge and lochs as these have potential to be a focal point for some ornithological species (including waterfowl and raptors). Offsetting turbines from lochs is considered appropriate to negate any potential effects on many target species, such as breeding teal and greenshank. The nearest turbine is approximately 350 m from Loch a' Bhealaich (which supported breeding teal) and 400 m from the identified greenshank breeding territory. The documented disturbance buffer for greenshank is 300-500 m, and although no such disturbance buffer is provided for teal, the disturbance buffer stated for wigeon, a comparable duck species, is 100-200 m.
		 The proposed turbines have also avoided, as much as practically possible, the most suitable golden eagle habitat (GET 6+ habitat).

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
		 The Proposed Development has also been designed sensitively to avoid the areas where red kite flight activity was typically highest, especially within the south-west of the site and around Carn Gorm to the east of the site.
		The on-site track layout has been designed to minimise ornithological disturbance and land take by maintaining at least a 500 m buffer from most black grouse leks (with the exception of one lek in the north of the site, 'Lek 4' which is 110 m from an area proposed for a new section of access track). There is only one Schedule 1 owl recorded as suspected breeding on-site. The suspected barn owl nest site is 1.55 km from the nearest turbine, so much greater than the disturbance limits of 50-100 m for the species. The proposed access route follows an existing road which is approximately 80 m from the suspected nest site. Given the disturbance buffer for barn owl, upgrading works to the access track within the context of the nest site being within an active farm setting is considered unlikely to result in disturbance to breeding barn owl.
	Pre-Construction and During	Construction Breeding Bird Protection Plan (CBBPP)
	Construction (Birds)	 Prior to the commencement of construction activities, a Construction Breeding Bird Protection Plan (CBBPP) will be prepared and submitted for agreement in consultation with THC and NatureScot, and will form part of the CEMP.
		The CBBPP will be informed by a pre-commencement breeding bird survey to establish the status and distribution of Schedule 1 breeding birds within the site and within 1 km of any potentially disturbing activities. This would be carried out in the breeding season preceding the construction phase of the Proposed Development to ensure the most updated information is considered, following receipt of consent. Surveys would also be undertaken during the construction phase to inform of 'live' constraints.
		Precautionary additional mitigation would be adopted to reduce displacement / disturbance effects on black grouse using the site for breeding/lekking. The location of black grouse leks would be considered with regards to construction and operational works associated with the Proposed Development. No construction works within 750 m of any identified main lek sites would be undertaken prior to 9 am in the months of April and May. This measure also should include a 'no-stop' policy in relation to works vehicles within 750 m of lek sites (particularly 'Lek 4') during the main lekking period as defined above, both during the construction and operational phases of the Proposed Development.
		 These measures will be defined respectively in a CBBPP and OBBPP and enfored through a suitably worded planning condition.
	Pre-Construction	Pre-Construction Surveys
	(Surveys)	 Habitat clearance activities, where these coincide with the breeding bird season (1 March to 31 August, inclusive) would be subject to a pre-clearance survey by the ECoW or a competent ornithologist to identify any active wild bird nests. Should any active nests or leks be found, works would only proceed under the advice of the ECoW/appointed ornithologist and following a disturbance risk assessment. This would include all works within the site.
		 Work exclusion buffers around identified nest or lek sites would be implemented where necessary in accordance with best available species guidance applicable at the time and/ or as agreed in consultation with NatureScot.
		 To avoid potential disturbance to breeding Annex 1/Schedule 1 listed raptors and owls, all areas within 1 km of construction activities within the site would be surveyed in advance of works being commenced during the core breeding season (1 March to 31 August, inclusive), to identify any nesting locations for such species.
		 Where necessary, work exclusion buffers around identified nest sites would be established where necessary in accordance with best available species guidance applicable at the time and/or as agreed in consultation with NatureScot. No works would be permitted within the implemented exclusion buffer.
	During Construction (EcoW)	Ecological Clerk of Works (ECoW)

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure	
		 A suitably qualified Ecological Clerk of Works (ECoW) would be employed for the duration of the construction and reinstatement periods, to ensure ornithological interests are safeguarded, although this may not necessarily be a full- time role throughout. The role of the EcoW will be set out fully within the CEMP, but would include the following tasks: 	
		 provide toolbox talks and information to all staff on-site, so staff are aware of the ornithological sensitives of the with the site and the legal implications of not complying with agreed working practices; 	
		 agree and monitor measures designed to minimise damage to retained habitats; 	
		 undertake pre-and during construction surveys and advise on ornithological issues and working restrictions where required; and 	
		 complete site-supervision works as required, in relation to sensitive habitats and protected ornithological species. 	
	During Operation	Operational Breeding Bird Protection Plan (OBBPP)	
	(OBBPP)	 An OBBPP would be prepared to be adopted during the operation phase, to minimise effects on lekking black grouse and foraging raptors. This, like the CBBPP, would be submitted for agreement in consultation with THC and NatureScot. 	
		 Similar to the CBBPP, the location of black grouse leks would be considered with regards to operational works associated with the Proposed Development. This measure would include a 'no-stop' policy in relation to works vehicles within 750 m of lek sites (particularly 'Lek 4') prior to 9 am in the months of April and May, during the operational phase of the Proposed Development. 	
		 During the operational phase of the Proposed Development, any carcasses (deer and sheep) would be readily removed from the site to minimise encouraging raptors (principally golden eagle and red kite in the context of this assessment, and other scavenging raptor species as well) onto the site and particularly towards operational turbines, where they would potentially be at increased risk of collision. 	
		 In advance of commencement of the Proposed Development (if consented) the OBBPP will detail how this measure is to be implemented during the operation phase of the Proposed Development, and would be secured by a suitably worded planning condition. 	
	Decommissioning	Decommissioning Restoration and Aftercare Strategy (DRAS)	
		 At the point of decommissioning, a Decommissioning Restoration and Aftercare Strategy will be developed through consultation with THC, SEPA, Transport Scotland and other relevant consultees in line with relevant legislation and guidance at that point in time. This will detail those measures to be adopted to ensure the protection of key ecological/ornithological features. This will typically mirror those measures adhered to in the CEMP and will include pollution prevention protocols and pre-decommissioning surveys. 	
Chapter 10: Geology,	Pre and during Construction and	Buffer to Watercourses	
and Peat	(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 (as shown on OS 1:25,000 mapping) where technically feasible. 	
		 The design has strived to minimise the number of locations where infrastructure does encroach within the buffer. The layout of the access track was also designed to use existing tracks where technically feasible in order to minimise the requirement for watercourse crossings. 	
	Pre and during Construction (Peat)	Peat	

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
		 In undertaking the assessment of potential effects from the Proposed Development, good practice measures are assumed to be embedded mitigation. As appropriate, these mitigation measures will be outlined within the CEMP or by an appropriately worded condition post determination, as required.
		 The presence of peat within the site formed a key consideration of the design of the Proposed Development. Informed by the extensive programme of peat probing undertaken across the site, the design has tried to avoid areas of deeper peat (>1 m) where technically feasible.
		Good Practice Methods – Peat Safeguarding and Management
		The peat depth probing data has been used to accurately determine the volume of peat which will be disturbed by the Proposed Development. This data has been used to prepare a site-specific Peat Management Plan (PMP), (Technical Appendix 10.2) which details the volume of acrotelmic and catotelmic peat which would be disturbed and how this would be safeguarded and reused on-site. Furthermore, the condition of the peat and areas of peat that would potentially benefit from restoration have been identified and are discussed in Chapter 8 and Outline Nature Enhancement Management Plan (oNEMP) (Technical Appendix 8.5).
		 As shown in the Peat Landslide Hazard Risk Assessment (PLHRA) (Technical Appendix 10.1) and the PMP (Technical Appendix 10.2), measures have been proposed to ensure the stability of peat and carbon rich soils and that peat and soils that will be disturbed by the Proposed Development can be safeguarded and beneficially re-used on site.
		Monitoring – Peat in Borrow Pits
		An assessment of the water level/depth to saturated peat in the borrow pit will be recorded quarterly and reported annually for a period of five years, following placement of peat. This could be recorded by inserting a peat probe at a number of locations across the restoration surface or by establishing a small network of hand driven dip wells where it is safe to do so. In addition, annually for a period of five years, following placement of peat:
		 the edge of the peat would be inspected to assess for potential loss of water; and
		 evidence of drying (e.g. surface cracking and /or erosion) would be assessed and reported.
		 Should the monitoring data suggest the peat is drying, mitigation measures would be agreed with SEPA and NatureScot.
		Good Practice Measures Peat Management
		A detailed review of the distribution and depth of peat at the site is contained in the PMP (Technical Appendix 10.2). The site design has avoided areas of deep peat where technically feasible and where peat would be encountered by the Proposed Development it can be readily managed and accommodated within the site layout with no significant environmental impact. No surplus peat would be generated, and the volumes of peat / peaty soil generated from the proposed excavations would be used to reinstate track verges, turbine bases, crane hardstandings and restore on-site borrow pits.
		Good Practice Measures Peat Landslide Hazard
		 The PLHRA (Technical Appendix 10.1) confirms, regarding peat stability, that there are very few areas of peat instability risk across the Proposed Development and the hazard impact assessment concluded that, with the deployment of appropriate mitigation measures, all of the areas of peat instability can be considered as an insignificant risk.
		 A Design and Geotechnical Risk Register will be compiled to include risks relating to peat instability, as this will be beneficial to both the Applicant and the Principal Contractor in identifying potential risks that may be involved during construction.

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
		 Good construction practice and methodologies to prevent peat instability within areas that contain peat deposits are identified in the PLHRA (Technical Appendix 10.1). These include:
		 Measures to ensure a well-maintained drainage system, to include the identification and demarcation of zones of sensitive drainage or hydrology in areas of construction.
		 Minimisation of 'undercutting' of peat slopes, but where this is necessary, a more detailed assessment of the area of concern would be undertaken prior to construction.
		 Careful micrositing of turbine bases, crane hardstandings and access track alignments to minimise effects on the prevailing surface and sub-surface hydrology.
		 Raising peat stability awareness for construction staff by incorporating the issue into the site induction (e.g. peat instability indicators and good practice).
		 Introducing a 'Peat Hazard Emergency Plan' to provide instructions for site staff in the event of a peat slide or discovery of peat instability indicators.
		 Developing methodologies to ensure that degradation and erosion of exposed peat deposits does not occur as the break-up of the peat top mat has significant implications for the morphology, and therefore hydrology, of the peat (e.g. minimisation of off-track plant movements within areas of peat).
		 Developing robust drainage systems that would require minimal maintenance.
		 Developing drainage systems that would not create areas of concentrated flow or cause over/under- saturation of peat habitats.
		 Notwithstanding any of the above good construction practices and methodologies, detailed design and construction practices will need to consider the particular ground conditions and the specific works at each location throughout the construction period. An experienced and qualified engineering geologist/geotechnical engineer will be appointed as a supervisor, to provide advice during the setting out, micrositing and construction phases of the Proposed Development.
		Mitigation at Identified Risk Locations- Peat Landslide Hazard
		 Excavation of peat prior to construction at the identified risk locations (Technical Appendix 10.1) would reduce and mitigate risk of peat landslide.
		 Suitable shoring of excavations would assist in mitigating risk during construction.
		 Catch wall ditches or fences could be constructed downslope of the risk location to mitigate against any peat slide during construction works.
		 Drainage pathways should be maintained during and post construction to reduce risk of peat slide.
		 At borrow pits, peat and soils will be stripped prior to the working of the borrow pit with suitable prevention methods put in place to stabilise cuttings.
	Pre and during Construction and	Pollution Risk and Surface Run-off
Operation (Water)	 Good practice measures would be applied in relation to pollution risk, and management of surface run-off rates and volumes. This would form part of the final CEMP to be implemented for the Proposed Development. 	
		 Prior to construction, a site-specific drainage plan would be produced. This would consider existing local drainage which may not be mapped and incorporate any site-specific mitigation measures identified during the assessment.

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
		 Measures would be included in the final CEMP for dealing with pollution / sedimentation / flood risk incidents and would be developed prior to construction. This would be adhered to should any incident occur, reducing the effect as far as practicable.
		 The final CEMP would contain details on the location of spill kits, would identify 'hotspots' where pollution may be more likely to originate from, provide details to site personnel on how to identify the source of any spill and state procedures to be adopted in the case of a spill event. A specialist spill response contractor would be identified to deal with any major environmental incidents.
		 A wet weather protocol would be developed. This would detail the procedures to be adopted by all staff during periods of heavy rainfall. Toolbox talks would be given to engineering / construction / supervising personnel.
		 Roles would be assigned to different engineering / construction / supervising personnel and the inspection and maintenance regimes of sediment and run-off control measures would be adapted during these periods. In extreme cases, the above protocol would dictate that work on-site may have to be temporarily suspended until weather/ground conditions allow.
		Ecological / Environmental Clerk of Works
		To ensure all reasonable precautions are taken to avoid adverse effects on the water environment, a suitably qualified Ecological or Environmental Clerk of Works (ECoW/EnvCoW) will be appointed prior to the commencement of construction to advise the Applicant and the Principal Contractor on all ecological and hydrological matters. The ECoW/EnvCoW will be required to be present on-site during the construction phase and will carry out monitoring of the works and briefings with regards to any ecological and hydrological sensitivities on the site to the relevant staff of the Principal Contractor and subcontractors.
		 With respect to the water environment, the ECoW/EnvCoW would also have responsibility for ensuring that surface water flow paths and the quality of surface water reaching water dependent habitats are sustained and protected.
		 During and following construction, the drainage measures deployed at the site (temporary and permanent) will be subject to routine inspection by the dedicated site ECoW/EnvCoW and the Applicant. This would be specified in the final CEMP and would be secured by an appropriately worded condition of consent.
		Water Quality Monitoring
		 Water quality monitoring during the construction phase would be undertaken for the surface water catchments that drain from the Proposed Development to ensure that none of the tributaries of the main channels are carrying pollutants or suspended solids. Monitoring would be carried out at a specified frequency (depending upon the construction phase) within these catchments.
		Monitoring would commence prior to construction and continue throughout the construction phase and immediately post construction. Monitoring would be used to ensure a rapid response to any pollution incident as well as assess the efficacy of good practice or remedial measures. Monitoring frequency would increase during the construction phase if remedial measures to improve water quality were implemented. Detailed water quality monitoring plans would be developed during the detailed design stage of the project. The monitoring programme would be secured by a predevelopment planning condition to be agreed with statutory consultees.
		 It is also proposed that the private water supply source for PWS01, as discussed in Technical Appendix 10.4, is included in the monitoring programme.
		 The performance of the good practice measures would be kept under constant review by the water monitoring schedule, based on a comparison of data taken during construction with a baseline data set, sampled prior to the construction period.
		Pollution Risk

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
		 Refuelling would take place at least 50 m from watercourses and would not occur when there is risk that oil from a spill could directly enter the water environment.
		 Foul water generated on-site would be managed in accordance with best practice and be drained to a sealed tank and routinely removed from the site.
		 A vehicle management plan and speed limit would be strictly enforced on-site to minimise the potential for accidents to occur.
		 Drip trays would be placed under vehicles which could potentially leak fuel/oils when parked.
		 Areas would be designated for washout of vehicles which are a minimum distance of 50 m from a watercourse.
		 Washout water would also be stored in the washout area before being treated and disposed of.
		 No direct or indirect discharges to watercourses without prior treatment in buffer zones or adjacent to proposed infrastructure using appropriate SuDS measures. These measures would be included in the formal drainage management plan and the final CEMP.
		 Water would be prevented as far as possible, from entering excavations.
		 Procedures would be adhered to for storage of fuels and other potentially contaminative materials in line with the Contolled Activities Regulations (CAR) to minimise the potential for accidental spillage.
		 A plan for dealing with spillage incidents would be designed prior to construction, and this would be adhered to should any incident occur, reducing the effect as far as practicable. This would be included in the final CEMP.
		 Site investigation (e.g. trial pits and/or boreholes) would be undertaken prior to any construction works where excavation would be required to establish the Proposed Development and it would inform detailed design and construction methods to ensure pollution risk is further considered prior to construction. These methods would be specified in the final CEMP.
	Pre-and during Construction	Erosion and Sedimentation
	(Water)	 All stockpiled materials will be located outwith a 50 m buffer from watercourses, including on up gradient sides of tracks and battered to limit instability and erosion.
		 Stockpiled material would either be seeded or appropriately covered, minimising the area of exposed bare ground.
		 Monitoring of stockpiles/excavation areas during rainfall events.
		 Water would be prevented as far as possible, from entering excavations through the use of appropriate cut-off drainage.
		 Where this is not possible, water that enters excavations would pass through a number of silt/sediment traps to remove silt prior to discharge into the surrounding drainage system. Detailed assessment of ground conditions would be required to identify locations where settlement lagoons would be feasible;
		 Clean and dirty water on-site would be separated, and dirty water would be filtered before dicharge and entering the stream network.
		 If the material is stockpiled on a slope, silt fences would be located at the toe of the slope to reduce sediment transport.
		 The amount of ground exposed, and time period during which it is exposed, would be kept to a minimum and appropriate drainage would be in place to prevent surface water entering deep excavations.

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
		 A design of drainage systems and associated measures to minimise sedimentation into natural watercourses would be developed - this may include silt traps, check dams and/or diffuse drainage.
		 Silt/sediment traps, single size aggregate, geotextiles or straw bales would be used to filter any coarse material and prevent increased levels of sediment. Further to this, activities involving the movement or use of fine sediment would avoid periods of heavy rainfall where possible.
		 Construction personnel and the Principal Contractor would carry out regular visual inspections of watercourses to check for suspended solids.
	Pre-and during Construction (Flooding)	Fluvial Flood Risk Sustainable Drainage Systems (SuDS) shall be incorporated as part of the Proposed Development. SuDS techniques aim to mimic pre-development run-off conditions and balance or throttle flows to the rate of run-off that might have been experienced at site prior to development. Good practice in relation to the management of surface water run-off rates and volumes and reducing these to mitigate localised fluvial flood risk would include the following:
		 Drainage systems would be designed to ensure that any sediment, pollutants or foreign materials which may cause blockages are removed before water is discharged into a watercourse.
		 On-site drainage would be subject to routine checks to ensure that there is no build-up of sediment or foreign materials which may reduce the efficiency of the original drainage design causing localised flooding.
		 Appropriate drainage features would attenuate run-off rates and reduce run-off volumes to ensure a minimal adverse effect upon flood risk.
		 Where necessary, check dams will be used to prevent ditches developing into preferential flow pathways and ditches shall be backfilled with retained excavated material.
		 As per good practice for pollution and sediment management, prior to construction, section-specific drainage plans would be developed and construction personnel made familiar with the implementation of these.
		Further information on ground conditions and drainage designs will be provided in the final CEMP. The off-site turning circle will be designed, as part of the detailed design stage, to avoid land raising within the floodplain of the Black Water and Abhainn Srath Rannoch. If any additional land raising is proposed within the floodplain, appropriate flood compensation will be incorporated within the design of the off-site turning circle and agreed with statutory consultees prior to construction.
	Pre- and During Construction (Water)	Water Abstractions Any water abstraction (for example, for dust suppression during construction) would only be made with authorisation from SEPA and in accordance with the CAR. Good practice that would be followed in addition to the CAR includes:
		 water use would be planned so as to minimise abstraction volumes;
		 water would be re-used where possible;
		 abstraction volumes would be recorded; and
		 abstraction rates would be controlled to prevent significant water depletion in a source.
	Pre-and during Construction and	Watercourse Crossings
	(Watercourses)	 Eleven new watercourse crossings are required to facilitate the Proposed Development, while five existing crossings may need to be upgraded, as detailed within Technical Appendix 10.3 and shown on Figure 10.1.
		 The crossings would be designed to pass the 200-year flood event plus an allowance for climate change and their design and construction details would be agreed with SEPA and THC as part of the final CEMP.

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
Chapter 11: Archaeology	Design	Embedded Mitigation
and Cultural Heritage		 Mitigation through design has been outlined in Chapter 2: Site Description and Design Evolution. Assets within the wind farm site have been physically avoided through revisions of the proposed tracks and turbine foundations.
Chapter 12: Noise and Vibration	Operation	Turbine Model Trailing Edge Serrations
	(Wind Turbines)	In terms of operational noise generated by the Proposed Development, the turbine modelled includes trailing edge serrations which have the effect of reducing source noise levels as compared with turbine blades which do not have such modifications. Turbines of the size and scale considered for the Proposed Development typically include this feature as a matter of course, and it is expected that the actual turbine for potential installation at the site, should consent be granted, will have similar blade modifications.
		 Nevertheless, noise associated with the operation of the Proposed Development will be required to meet any consented planning condition noise limits in this respect, regardless of the specific design of turbine, and appropriate due diligence and/or further planning submissions will be required to ensure that this is the case.
		 Planning condition noise limits will be imposed on the Proposed Development, such that overall noise levels will not breach the overall requirements of ETSU-R-97.
	Construction (Noise)	Good Practice Measures Construction Noise To reduce the potential effects of construction noise, the following good practice measures are proposed and where appropriate are to be included in the CEMP:
		Those activities that may give rise to audible noise at the surrounding properties and heavy goods vehicle deliveries to the site will be limited to the hours 08:00 to 19:00 Monday to Friday and 08:00 to 13:00 on Saturdays. Turbine deliveries will only take place outside these times with the prior consent of THC and the Police. Those activities that are unlikely to give rise to noise audible at the site boundary will continue outside of the stated hours.
		 All construction activities shall adhere to good practice as set out in BS 5228-1.
		 All equipment will be maintained in good working order and any associated noise attenuation such as engine casing and exhaust silencers shall remain fitted at all times.
		 Where flexibility exists, activities will be separated from residential neighbours by the maximum practicable distances.
		 A site management regime will be developed to control the movement of vehicles to and from the Proposed Development site.
		 Construction plant capable of generating significant noise and vibration levels will be operated in a manner to restrict the duration of the higher magnitude levels.
	Construction	Borrow Pits
	(Blasting)	If blasting is used at the proposed borrow pits, the following additional measures would also be implemented through the CEMP:
		 Blasting should take place under controlled conditions with the agreement of THC.
		 Good practices during the setting and detonation of charge should be followed, in order to control air overpressure, in line with guidance set out in PAN50 and BS 5228-2.
		 Vibration levels at the nearest sensitive properties are best controlled through on-site testing processes, with progressively increased charges, carried out in consultation with THC. Ground vibration caused by blasting operations at the nearest sensitive locations, should not exceed 6 mm/s for 95 % of all blasts measured over any 6-month period, and no individual blast exceeding a Peak Particle Velocity (PPV) of 12 mm/s.
Chapter 13: Site Access, Traffic and Transport	Construction (CTMP)	Construction Traffic Management Plan (CTMP)
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Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
		A CTMP would be prepared for the Proposed Development, with Transport Scotland consulted during the production of the CTMP. This document would describe measures that would be implemented to control construction-related traffic travelling to and from the Proposed Development. The submission of a CTMP could be made a condition of any consent granted for the Proposed Development. The types of matters that could be included in a CTMP include:
		 Details of type and number of vehicle movements expected to and from the Proposed Development.
		 Details of the routes expected to be taken by HGVs travelling to and from the Proposed Development.
		 Measures to encourage compliance with the identified routes.
		 Timing of deliveries to avoid any sensitive times (e.g. school start and finish times).
		 Code of conduct for HGV drivers.
		 A requirement that all HGVs operated by the Principal Contractor HGVs will have Global Positioning System (GPS) trackers, allowing their speed and routeing to be recorded.
		 Liaison with road authority regarding winter maintenance.
		 Arrangements for cleaning any sections of public road affected by material deposited from vehicles related to the construction of the Proposed Development.
		 Arrangements for before and after road condition surveys.
		 Arrangements for temporary traffic signs.
		 Contingencies for unobstructed access for emergency services.
		 Development of a Travel Plan for staff, reducing the need for single use car access to the Proposed Development.
		 Arrangements for the monitoring, reviewing and reporting on the implementation of the CTMP.
		 Procedures for dealing with non-compliance with the CTMP.
		Best practice measures would also be implemented to manage impacts arising from construction traffic. These would include sheeting of HGVs (where applicable) to prevent dust and requiring all HGVs leaving the site to go through a wheel wash to reduce the risk of dust, mud or other debris being deposited on the public road. A trial run would be undertaken of the AILVs transporting the turbine components, which would identify any accommodation works needed
		Transport Scotland (TS) should be consulted during the production of the CTMP for the Proposed Development to establish the position at that time of the accident rate at the junction of the A835 and A832 and the status of any proposals to address safety at that junction. Depending on the outcome of that consultation, the CTMP could include measures to, for example, highlight this junction during 'toolbox talks' for site operatives.
Chapter 14: Socio- economics, Recreation,	Access (Outline Outdoor Management and Enhancement Plan)	 The creation of a circular walking route would provide enhancement of access through the site whilst promoting recreation, heritage and ecological interest in the area,
		The creation of the circular walking route would be implemented through an Outdoor Management and Enhancement Plan (an outline version of which is provided in Technical Appendix 14.2). This plan identifies a number of opportunities for enhancing biodiversity and outdoor spaces, including improvements to pathways and signage. The addition of information boards, benches, and wildlife hides could offer further learning opportunities, and wildlife management and the planting of native species could enrich the natural environment, enhancing the experience for both the local community and visitors
Chapter 15: Aviation	Operation (Aviation Lighting)	Aviation Lighting – Reduced Lighting Scheme

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
		Wind turbines with a tip height in excess of 150 m are required to be illuminated with medium-intensity red aviation obstruction lights installed on the turbine hub in accordance with the Civil Aviation Authority (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 15.1 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 7: Landscape and Visual Impact Assessment) and provides an estimate of the percentage of time that the lights will be at full power and at 10% intensity based on historical Met Office records of visibility and cloud base in the region. As noted above, each turbine will be fitted with MOD specification IR lighting to mitigate effects on military low flying. The implementation of the proposed lighting scheme (both visible and infrared) will be subject to a suspensive planning condition to the consent if granted. The Aviation Lighting and Mitigation Report, Technical Appendix 15.1, was drafted prior to the publication of the NatureScot Guidance on Aviation Lighting Impact Assessment in November 2024, however the report already covers all of the requirements within that guidance.
Chapter 16: Other	Operation	Wind Farm Shadow Flicker Protocol
Considerations	(Shadow Flicker)	 Although shadow flicker levels are predicted to be well below the 30-hour per year significance threshold, the Applicant is nonetheless committed to promptly investigating any complaints of shadow flicker and taking appropriate action as required.
		The Applicant proposes that prior to the operation of the first turbine, a Wind Farm Shadow Flicker Protocol would be submitted to and approved by THC. This would set out the protocol to be followed should a shadow flicker complaint be received from a receptor within the study area, and potential mitigation measures. Should a complaint be received these mitigation measures would include using the turbine's shadow flicker control module to be programmed to minimise impacts at the receptor(s). Operation of the Proposed Development would be undertaken in accordance with the Wind Farm Shadow Flicker Protocol.
		If a complaint is made regarding shadow flicker, an investigation would take place which considers the weather conditions at the time of the alleged shadow flicker, to determine which turbines were, or were not, creating the effect and the extent of the shadow flicker created. If the investigation confirms a loss of residential amenity at any location, the technical mitigation measures built into these turbines would be activated.
		Shadow flicker control modules, consisting of light sensors and specialised software, will be installed on the turbines that can prevent operation during periods when shadow flicker can be experienced at nearby properties. The installation of a programmable shadow flicker module will allow the control of turbines in order to eliminate shadow flicker. The correct operation of the installed shadow flicker control measures will ensure that there will be no impact from shadow flicker. The operation and performance of the shadow flicker control measures will be monitored on an ongoing basis.
		The shadow flicker control module consists of bespoke software, a clock, a timer, a switch, a wind direction sensor and a light sensor. The module can control a specific turbine (or turbines) which would be programmed to shut down on specific dates at specific times when the sun is bright enough, there is sufficient wind to rotate the blades and the wind direction is such that nuisance shadow flicker could occur. There is no specific UK guidance regarding what level of light is sufficient to cause a shadow flicker event. However, the actual light level that would trigger a turbine shut down can be manually configured on-site, following installation, to reflect local conditions.
		 It is proposed that a planning condition would provide an appropriate form of mitigation to ensure that any complaints would be investigated within a reasonable timescale and that the rectification of any substantiated shadow flicker issue would be implemented promptly and effectively.

Chapter	Type of Mitigation or Compensation	Mitigation or Compensation Measure
	Construction and Operation	Major Accidents and Disasters: Public Safety and Access
	(Safety and Access)	 Site security and access during the construction period would be governed under the Health and Safety at Work Act 1974 and associated legislation. Public access to the site including the existing tracks would remain in place as far as possible during construction (subject to temporary health and safety restrictions during certain construction activities) and would re-open to the public fully once construction of the Proposed Development is complete.
	Construction	Health and Safety
(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.	
	Operation	Extreme Weather
	(Health and Safety)	 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 and 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 that 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 the particular circumstances that can cause ice throw.

17.3 Enhancement Commitments

- 17.3.1 **Table 17-2** sets out the schedule of enhancement committed to by the Applicant through the outline Nature Enhancement Management Plan (oNEMP) (**Technical Appendix 8.5**) and the outline Outdoor Management and Enhancement Plan (**Technical Appendix 14.2**). A final NEMP and Outdoor Management and Enhancement Plan would be agreed through an appropriately worded planning condition.
- 17.3.2 A Steering Group and Review Committee (SGRC) comprising of NatureScot, THC and the operator of the Proposed Development (and others) would be set up to oversee the effectiveness of the final NEMP.

Type of Enhancement	Enhancement Measure
Operation	Enhancement of Peatland Habitats
(Outline Nature	 Opportunities to improve the structural diversity and condition of blanket bog would
Enhancement	be considered, including:
Management Plan)	 Reinstatement of (correctly stored) peat turves and vegetated peat divots.
	 Use of mulches or heather brash (or occasionally a biodegradable geotextile, like jute) and re-seeding to protect areas of bare peat from further erosion.
	 Management of grazing by livestock and deer in sensitive areas.
	 Re-profiling of peat hags, and hydroseeding if necessary and appropriate.
	 Ditch-blocking to promote re-wetting (where this is appropriate and would not interfere with estate management or operational activities of the Proposed Development).
	 Control of encroaching commercial conifer saplings, and bracken (Pteridium aquilinum).
	 The success of the habitat improvement and peat restoration activities would be monitored on a regular basis for an ongoing period during the operational phase of the Proposed Development. The details would be included in the final NEMP to be agreed by a suitable planning condition.
	Peatland Restoration Search Areas' (areas of peatland that are potentially suitable for restoration) have been identified (through the presence of drains, encroaching scrub/conifer saplings, erosion and/or hagging) totalling 270.59 ha. These are areas which have notably suffered from degradation, modification, erosion, and in some places, peat hagging and bare exposed peat. These Peatland Restoration Search Areas are a mix of areas identified as priority peatland of possible national interest, and other areas not of national interest, as well as an area of acid grassland/wet heath/bracken mosaic in the north-west of the site, but all with features considered potentially restorable by reinstating and improving the peatland/carbon-rich soil function of these areas. Note, most identified areas are well distanced (>500 m) from proposed turbines, where benefits for wildlife (such as ground-nesting waders) would be greatest.
	Habitat enhancement measures are currently required over and above the peatland restoration needed for mitigation to offset for the loss of priority peatland. There is 333.46 ha of peatland considered as of 'possible national interest' on the site. Based on current guidance, up to 33 ha of degraded peatland would be required to be restored to deliver enhancement (within those Peatland Restoration Search Areas). This would be deliverable given the combined extent of the Peatland Restoration Search Areas totals up to 270.59 ha. Note, the amount of 33 ha of peatland required to be restored to achieve appropriate enhancement included in the oNEMP is indicative and the specific amount of peatland to be restored would accord with the applicable NatureScot guidance at the time of any consent.
	The site is grazed, by deer and livestock. It is proposed that access for deer would continue throughout the operational lifetime of the Proposed Development and as such, habitat management principles to be further detailed and implemented would comprise a sensitive grazing regime. The objective would be to continually manage grazing densities within the site, to prevent overgrazing and encourage and maintain a good overall site condition. Any requirement for fencing to be created around particularly sensitive areas would be considered and would be guided by habitat monitoring. Should fencing be required/considered appropriate, it would be marked with droppers to reduce collision risk for black grouse.
	Monitoring of the peatland habitats on-site would be a fundamental aspect of the restoration works and success of these measures, and therefore specific monitoring to determine grazing levels and pressures will be incorporated into the habitat monitoring programme. This will include appraising whether grazing levels are appropriate or whether there needs to be any alteration in the deer management on-site (which would be agreed with the landowner). The specifics into the monitoring

Type of Enhancement	Enhancement Measure
	protocol would be agreed with NatureScot and THC, if the Proposed Development is consented.
	Improving peatland condition on-site will benefit ground-nesting birds, particularly wading species. Waders will benefit from areas of peatland being 're-wetted' as this will increase the foraging potential (invertebrate prey in the soil) and make the ground softer for wader's bills to probe. There are likely to be areas which are on slightly higher ground/mounds such as tussocks which will remain dry for nesting, and accordingly there will be benefits to both breeding and foraging birds, which will both be important for breeding success.
	Enhancement of Riparian Habitats
	 Opportunities to enhance and/or create fish habitats, including fish cover and native riparian planting within the identified watercourses on the site would be investigated, with prescriptive measures agreed with NatureScot, THC and Cromarty Firth Fishery Board. The watercourses to be targeted would be the same as those targeted for riparian tree planting.
	Measures for improving and/or creating fish cover to be explored would comprise techniques such as placing boulders and wood debris in watercourse channels; these provide refugia for both juvenile and adult fish, and opportunities (such as shelter) for macroinvertebrates. A greater extent of exposed rocks and boulders would also provide a greater number of potential spraint sites for otter (<i>Lutra lutra</i>), as well as feeding perches for bird species like wagtails and dipper. However, only suitable water stretches would be considered, to ensure, for example, there is no risk of causing localised flooding.
	 Native riparian tree planting can deliver benefits for fisheries, including the casting of some shade, maintenance of cool water temperatures, provision of cover and sources of food from in-falling litter and insects.
	Areas for appraising for riparian tree planting proposed is shown as 'Riparian Woodland Planting Search Areas' in Figure 8.12 and would be along the Allt Cnoc nan Cleireach, Allt Abhegaith, Allt na Goibhle, and Allt Fionnaidh. The lengths of the Riparian Woodland Planting Search Areas are a combined <i>c</i> . 3.91 km. It is considered unlikely that all 3.91 km stretches would be planted, and the specific areas would be agreed through consultation at the detailed design stage.
	 The prescriptive measures would be agreed with NatureScot, THC, and Cromarty Firth Fishery Board.
	Tree planting (including riparian planting and native tree planting) has potential to benefit black grouse. The survey results revealed a black grouse lek on-site in close proximity of where the native tree planting is proposed (although sufficiently distant to not negatively impact the open nature of the lek site). Tree planting to be prescribed would include both continuous and discontinuous shrub and tree dominated planting. Discontinuous areas of planting would ensure that extensive shading of existing food plants (e.g. grasses, heathers and bilberry (Vaccininum myrtillus), where present) for black grouse does not occur, with tree and shrub species planted selected for their preference by black grouse such as (amongst others) birch (Betula spp.), juniper (Juniperus communis), willow (Salix species), and rowan (Sorbus aucuparia). Such plant species would provide additional food sources for black grouse in the spring and winter, together with suitable cover from predation for both adults and broods. The riparian planting would be >500 m from the proposed turbines so that effects on any black grouse encouraged by the planting would not be adversely affected by the operation of the Proposed Development.
	 The creation of linear habitat features like riparian treelines would provide opportunities for a variety of bird species. Scrub and tree species of local provenance (prioritising fruit-producing species and black grouse forage species) which would provide nesting and foraging resources for many bird species would be chosen.
	 Bats would benefit from the creation of treelines along riparian corridors, and this would improve foraging and commuting opportunities for bats through the site (noting that no planting would be undertaken within an appropriate 'bat buffer' (minimum 105 m) from proposed turbines to minimise collision risks to bats). Tree planting would also benefit a host of other wildlife and would improve habitat connectivity and habitat networks in and through the site.
	Improve Opportunities for Nesting Birds and Roosting Bats
	 Measures for improving and/ or creating opportunities for other nesting birds would comprise the installation of nest boxes, suitable for a range of species. It is proposed that cavity-nesting boxes and open-nesting boxes would be installed within the site. Opportunities for roosting bats would also be increased on-site through the installation of bat boxes fixed to appropriate trees (these would be offset from operational turbines).

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Type of Enhancement	Enhancement Measure
	 Given the site is largely open, upland moorland, the target area for the location of bird and bat boxes would be the north-west of the site, where there are large mature trees suitable for wildlife boxes to be fixed onto.
	 A bird nest box and bat roost box plan within the site would be designed by a suitably competent and qualified ecologist for incorporation into the final NEMP, with the final number, type and location of boxes confirmed in consultation with NatureScot, to be most relevant to the species assemblage present, and any local priorities.
	Improve Habitats On-site for Invertebrates
	Liaison with Buglife identified a number of invertebrate species which should be considered for benefiting from habitat enhancements. This included four rare pollinator species, particularly given the site is located close to a 'B-line' which represents an 'insect pathway ¹² . The four species Buglife specifically mentioned with this regard were: aspen hoverfly (<i>Hammerschmidtia ferruginea</i>), Rannoch brindled beauty (<i>Lycia lapponaria</i>), pinewood mason bee (<i>Osmia uncinata</i>) and pearl- bordered fritillary (<i>Boloria euphrosyne</i>). Aspen hoverfly, pinewood mason bee and pearl-bordered fritillary are also all Local Biodiversity Action Plan species, for THC.
	The Rannoch brindled beauty was identified as a potential target species for benefiting from habitat enhancement. This moth species requires damp moorland, with the caterpillar foot plants, bog myrtle (<i>Myrica gale</i>) and heather. The restoration measures for the degraded peatland on-site is likely to benefit the species. This is particularly the case given ditch-blocking aiming to increase the water-table in those identified areas would result in the habitat holding more water. As a result, the extent of standing water associated with the peatland would likely be increased which would also benefit other invertebrates, including dragonflies and damselflies.
	The aspen hoverfly was identified as a key target species for benefitting from habitat enhancement. This species requires aspen (<i>Populus tremula</i>), with the larvae living in the bark of rotting, fallen aspen branches. Buglife also suggested targeting habitat enhancement for the white-faced darter (<i>Leucorrhinia dubia</i>), which requires (along with deep bog pools), scrub or woodland for roosting and feeding. Two ground beetles (<i>Thalassophilus longicornis</i> and <i>Bembidion virens</i>), would also benefit from increased amount of deadwood.
	The tree and scrub planting would provide benefits to invertebrates with benefits most notable in the future as the woodland areas/treelines establish. Aspen would be part of the species composition to be planted. It would take many years for the woodland/treelines to provide deadwood, but in the interim period, materials from any areas of trees/woodland to be cleared for the Proposed Development would be scattered, particularly targeting the edge of the forestry/woodland on the periphery of the site, hence in close proximity to sheltered habitats. Increased deadwood on-site would be expected to benefit a number of invertebrates.
	The pinewood mason bee and pearl-bordered fritillary were identified as two other species to target for habitat enhancement. The species require bird's foot trefoil (<i>Lotus corniculatus</i>) and violets (<i>Viola</i> species) respectively, with the latter requiring violets as a food plant at the caterpillar stage. Trefoil and violets typically require well-drained soils. Trefoil was recorded within grassland at the off-site turning circle area, and violets were recorded in some of the better drained parts of the site. Restoration of peatland on-site would largely result in those targeted areas being less drained and holding water and thus would not encourage the growth or establishment of trefoils or violets. It is proposed that the areas of improved grassland identified at the off-site turning circle area (outwith the off-site turning circle development footprint) would be seeded with an appropriate native wildflower mix including trefoil and violets to provide foraging opportunities for bees and butterflies, including the pinewood mason bee and pearl-bordered fritillary.
	 Riparian tree planting can help improve conditions of watercourses for caddisflies and other aquatic invertebrates, by providing better dispersal corridors. Buglife identified the caddisfly (<i>Limnephilus subcentralis</i>) as being a potential target species for habitat enhancement, and riparian planting would accordingly improve conditions on-site for caddisflies. The creation of more cover in the identified watercourses would also benefit invertebrates like caddisflies during their larval stage through providing shelter and helping to slow waterflows. Fully aquatic invertebrates would also benefit from such watercourse enhancement measures.
	Enhance and Increase Native Tree Cover
	 Riparian tree planting (c. 3.91 ha) would be implemented, resulting in multi-faceted benefits for biodiversity. As well as providing shelter, feeding and roosting opportunities for wildlife (including black grouse), riparian planting would increase habitat connectivity through parts of the site (whilst being sensitive to the locations of proposed turbines). Increasing the extent of the riparian planting is a target for

² <u>https://www.buglife.org.uk/our-work/b-lines/</u> (Accessed 27/02/2025).

Type of Enhancement	Enhancement Measure
	Scottish Forestry and riparian planting is also considered a biodiversity gain at a greater than site-level geographic scale.
	The native broad-leaved planting (1.61 ha) in the west of the site would help 'soften' the edge of the commercial forestry which is located along the western site boundary. As well as improved opportunities (for example foraging, roosting and nesting) for wildlife, increasing the extent of woodland on-site would accord with NPF4 Policy 6. The precise locations of the native planting would be the focus of on-site investigation to ensure the most suitable localities are chosen without compromising other key features, such as areas of deeper peat and ground-nesting wader habitat (as well as avoiding potentially increased 'edge-effects').