

**Appendix 4.3: Schedule of Mitigation, Good Practice, Enhancement and Monitoring**



## Appendix 4.3: Schedule of Mitigation, Good Practice, Enhancement and Monitoring

This appendix provides a consolidated list of good practice, mitigation and monitoring measures which have been identified through the EIA, and which will be implemented during construction and operation of the Proposed Development. Measures are presented on a topic-by-topic basis, reflecting the chapters of the EIA Report. The assessment of effects is undertaken assuming that good practice embedded mitigation will be implemented and will be effective as an integral part of project design.

Good Practice / Embedded Mitigation	Additional Mitigation / Enhancement	Monitoring
<b>General Construction Good Practice (as detailed in Chapter 4: Project Description)</b>		
<p>During construction, there will be a suitably qualified environmental manager appointed with responsibilities including training, liaison with SEPA and ensuring applicable licences are held. This role will have authority for halting works if necessary. Emergency procedures will be detailed and subsequently agreed with SEPA, including contact lists and the personnel responsible.</p> <p>Good practice measures will include (but are not limited to) measures associated with:</p> <ul style="list-style-type: none"> <li>■ Pollution incidents;</li> <li>■ Erosion and sedimentation;</li> <li>■ Modification of surface water drainage patterns;</li> <li>■ Modification of groundwater levels and flows;</li> <li>■ Compaction of soils;</li> <li>■ Peat stability.</li> </ul> <p><b>Construction Environmental Management Plan</b></p> <p>Prior to the construction of the Proposed Development, the Applicant will develop a detailed Construction Environmental Management Plan (CEMP) with the appointed Principal Contractor, an outline of the content of which is provided in <b>Appendix 4.2: Outline Construction Environmental Management Plan</b>. The CEMP will establish the project management structure and clearly identify the roles and responsibilities in the management and reporting on the construction phase environmental aspects. The CEMP will be used to ensure that all relevant planning conditions and mitigation identified within the EIA Report to protect the environment are implemented through agreed procedures and working methods. Adherence to the CEMP, as well as referenced legislation and guidance documents, will be a contractual requirement for the appointed Principal Contractor and their sub-contractors, and will form a condition to the Section 36 consent.</p> <p>The purpose of the CEMP will be to:</p> <ul style="list-style-type: none"> <li>■ Provide a mechanism for ensuring that construction methods avoid, minimise and control potentially adverse significant environmental effects, as identified in the EIA Report;</li> <li>■ Ensure that good construction practices are adopted and maintained throughout the construction of the Proposed Development;</li> <li>■ Provide a framework for mitigating unexpected effects during construction;</li> <li>■ Provide assurance to third parties that agreed environmental performance criteria are met;</li> <li>■ Establish procedures for ensuring compliance with environmental legislation and statutory consents; and</li> <li>■ Detail the process for monitoring and auditing environmental performance.</li> </ul> <p>The CEMP will contain the following documents, which the Principal Contractor and their sub-contractors will be required to adhere to throughout the construction process:</p> <ul style="list-style-type: none"> <li>■ Pollution Prevention Plan (PPP);</li> <li>■ Construction Method Statements (CMS);</li> <li>■ Peat Management Plan (PMP) (following the principles set out in the outline PMP at <b>Appendix 7.3</b>);</li> <li>■ Site Waste Management Plan (SWMP);</li> </ul>	<p>Additional mitigation is set out as required for each topic below.</p>	<p>Monitoring will be required as part of the CEMP.</p>

Good Practice / Embedded Mitigation	Additional Mitigation / Enhancement	Monitoring
<ul style="list-style-type: none"> <li>■ Construction Traffic Management Plan (CTMP);</li> <li>■ Abnormal Load Transport Management Plan;</li> <li>■ Water Quality Management Plan; and</li> <li>■ Site Restoration Plan.</li> </ul> <p>The CEMP will also contain the following information:</p> <ul style="list-style-type: none"> <li>■ The name, qualifications, and CV of the nominated person(s) with the responsibility for all environmental matters, for approval;</li> <li>■ A completed register of contacts confirming the contact details for all key personnel for managing environmental issues, including the Applicant's representatives, the ECoW, Principal Contractor contacts and appropriate regulator contacts;</li> <li>■ The construction programme and detailed working method statements;</li> <li>■ A site-specific action plan, providing a register of environmental risks and outlining the requirement for accompanying site-specific mitigation, monitoring and reporting procedures; and</li> <li>■ Audit and inspection procedures.</li> </ul> <p>The CEMP and associated plans will be submitted to ABC, and others as appropriate, prior to the commencement of works. A copy of the CEMP will be kept in the construction site office for the duration of the works and will be always available for review.</p> <p>The Principal Contractor will be responsible for the continual development of the CEMP to take account of monitoring and audit results during the construction phase and changing environmental conditions and regulations.</p> <p>The services of other specialist advisers will be retained as appropriate, to be called on as required to advise on specific environmental issues.</p> <p>Performance against these documents will be monitored by the applicant's Construction Project Manager and the ECoW throughout the construction period. They will ensure that the works carried out are in accordance with the relevant best practice guidance documents.</p> <p>Regular meetings will be held throughout the construction period to discuss environmental management, providing updates on the performance of the environmental mitigation measures and identifying any actions for performance improvement. The meetings will be attended by the ECoW, the Applicant Construction Project Manager, the Principal Contractor, Site Manager and any other relevant personnel or regulatory agency representative as required.</p>		
<b>Chapter 6: Landscape and Visual Amenity</b>		
<p>Landscape and visual considerations, including the appearance of the Proposed Development from key viewpoints, played a key role in the design of the scheme. Consideration was given to the location of the turbines, as well as all ancillary infrastructure. Best practice guidance, including Siting and Designing Wind Farms in the Landscape (SNH, 2017) was considered throughout the design process.</p>	<p>Further commitments which have been made to reduce landscape and visual effects, include the protection of vegetation and restoration of disturbed areas as detailed in the Outline PMP, and Outline Restoration and Enhancement Plan (OREP) for peat, biodiversity, landscape and forestry (<b>Appendix 8.5</b>).</p>	<p>No monitoring of landscape and visual effects is proposed.</p>
<b>Chapter 7: Geology, Hydrology, Hydrogeology and Peat</b>		
<p>A number of good practice pollution prevention and control measures will be put in place during place during forestry felling operations and the construction of the turbines and access tracks. These will be embedded into the project design and reflect best practice guidance and recognised industry standards, as well as Statkraft's experience of constructing wind farms. Many of the measures mitigate several potential effects (e.g. mitigation to minimise sedimentation and pollution such as Sustainable Drainage Systems (SuDS) which can also serve to attenuate surface water run-off and minimise flood risk). Embedded mitigation measures are described in the outline CEMP and include:</p> <ul style="list-style-type: none"> <li>■ SuDS to minimise/attenuate surface run-off from new hardstanding and tracks;</li> <li>■ SuDS to reduce sedimentation and erosion;</li> <li>■ SuDS to reduce pollution and accidental spillage;</li> </ul>	<p>The PPP will contain details of the location specific additional mitigation for relevant infrastructure and the contractor will be legally obliged to comply with the pollution control and drainage measures agreed in the PPP and CSL.</p> <p>An Ecological Clerk of Works (ECoW) will be present onsite during construction to monitor and assess the works and check the mitigations outlined in the PPP are adhered to and function properly. If monitoring or assessment identifies non-compliance, ineffective mitigations, or impacts beyond those predicted in the EIA Report, this will be raised with the Contractor who will be required to demonstrate and deliver compliance.</p> <p>Pre- and post-construction fish habitat surveys in key watercourses will be carried out to micro-site the watercourse crossings away from potentially sensitive habitats wherever possible, and to confirm the habitat baseline). The monitoring plan will be set out in the CEMP.</p>	<p>As noted in the adjacent column, an ECoW will be present onsite during construction to monitor and assess the works and check the mitigations outlined in the PPP are adhered to and function properly. If monitoring or assessment identifies non-compliance, ineffective mitigations, or impacts beyond those predicted in the EIA Report, this will be raised with the Contractor who will be required to demonstrate and deliver compliance.</p> <p>Groundwater monitoring will be put in place to assess the quantitative and chemical effect of the infrastructure to ensure that the groundwater flow and quality to GWDTEs TN1, TN2, TN3 and TN5 are not statistically significantly changed post construction. Monitoring will be carried out based on SEPA guidance and will comprise groundwater monitoring at the spring/seeps and at a series of groundwater monitoring wells. Details of the monitoring will be agreed with SEPA and set out in the CEMP.</p>

Good Practice / Embedded Mitigation	Additional Mitigation / Enhancement	Monitoring
<ul style="list-style-type: none"> <li>■ Pollution control measures to be put in place at watercourse crossings;</li> <li>■ Peat management measures; and</li> <li>■ Measures to reduce sedimentation, erosion, and pollution during forestry felling.</li> </ul> <p>Drainage measures for new access tracks and infrastructure include (but are not limited to):</p> <ul style="list-style-type: none"> <li>■ Appropriately sized culverts passing under the tracks that do not restrict flow and allow small watercourses, intercepted field drains and ephemeral streams/surface water flow pathways to pass under the tracks.</li> <li>■ Interceptor drainage ditches on the upgradient side of all proposed infrastructure to intercept and divert 'clean' surface water run-off draining towards the construction areas.</li> <li>■ Installation and maintenance of swales and track drains to intercept, collect and treat runoff from access tracks and hardstanding areas of the Site and channel runoff to stilling ponds for sediment settling.</li> </ul> <p>Forestry felling and removal will follow the good practice guidance and legal requirements set out in Section 6.7 (Forests and Water) of the UK Forestry Standard (Forestry Commission 2017).</p> <p>As a minimum, the contractor will be required to follow the guidance contained in SEPA Guidance for Pollution Prevention (GPPs)<sup>1</sup> and to follow the SEPA's general binding rules (GBR) under the Water Environment (Controlled Activities) (Scotland) Regulations 2011, as amended (CAR Regulations).</p> <p>As concrete batching is proposed on-site, specific measures will be put in place to manage run-off from these operations, which is highly alkaline and can cause pollution if it gets into watercourses. Good practice described in SEPA wat-sg-75 guidance will be followed to isolate, collect, reuse and dispose of run-off from concrete operations. Concrete wash water and waste will be sent off-site to a licensed facility for treatment and/or disposal, in accordance with the Duty of Care for Waste.</p> <p>In terms of watercourse crossings, engineering activities on minor watercourses do not normally require authorisation under the SEPA CAR Regulations. SEPA defines minor watercourses as those not shown on the 1:50,000 scale Ordnance Survey maps. The majority of new crossings required for the Proposed Development are over small, minor watercourses and fall under General Binding Rules 6 and 9. These crossings will not require registration or a licence under CAR; however, the work will follow general good construction practice and SEPA GBR 6 and GBR 9.</p> <p>Several watercourse crossings will either require registration or a simple licence under CAR and will require specific mitigation measures. Bridging solutions will be designed to avoid affecting the bed and banks of watercourses. Forging of watercourse will be avoided. Design and implementation of crossings will follow best practice, including recommendations in SEPA (2010) Engineering in the Water Environment Good Practice Guide - River Crossings, Scottish Renewables et al. (2019) Good Practice during Windfarm Construction and SNH (2015) Constructed tracks in the Scottish Uplands.</p> <p>During construction, temporary construction SuDS will be put in place at each watercourse crossing to ensure no sedimentation from construction works or pollution from plant or machinery can enter the watercourse. This could be a series of settlement ponds or settlement tanks and silt fences.</p> <p>A Construction Site Licence (CSL) will be obtained from SEPA under the CAR Regulations in advance of the construction works. This will include a detailed Pollution Prevention Plan (PPP) to ensure that any discharges of water run-off from the Site to the water environment do not cause pollution. This will be prepared in advance of construction and authorisation from SEPA is required before construction commences.</p> <p>Prior to construction and on completion of ground investigations and micro-siting, a site waste management plan shall be produced, including for site soil and peat management good practice.</p>	<p>Additional mitigation and SuDS (e.g. silt fences, settlement ponds) will be installed around the following working areas, crossings and access tracks during construction to reduce the risk of sediment/silt run-off to the water environment during construction:</p> <ul style="list-style-type: none"> <li>■ Buffer encroachment B - proposed track, temporary hardstanding and clearance area associated with T4.</li> <li>■ Buffer encroachment C – proposed track between T5 and T6 close to Loch nan Car.</li> <li>■ Buffer encroachment D – proposed track east of T9.</li> <li>■ Buffer encroachment E – proposed track north of T11.</li> <li>■ Buffer encroachment H - Borrow Pit is within 5m of a small unnamed watercourse to the north. No works will be undertaken within 10m of the watercourse and additional mitigation will be put in place to prevent silt run-off to the watercourse.</li> <li>■ Buffer encroachment I - Borrow Pit 1 is within 10m of a small unnamed watercourse to the southwest. No works will be undertaken within 10m of the watercourse and additional mitigation will be put in place to prevent silt run-off to the watercourse. There is a small area of ponded surface water within the low part of the quarry; and care should be taken if dewatering the quarry prior to excavation.</li> </ul> <p>The bed and banks of watercourses and crossing locations will be re-established to their previous condition immediately after construction.</p> <p>Dewatering will be avoided where possible and permanent physical cut-offs will be avoided.</p> <p>Additional mitigation and monitoring are proposed to minimise the effects on GWDTEs, as follows:</p> <ul style="list-style-type: none"> <li>■ The track between T11 and T12 is proposed to be floated and will be designed to enable subsurface flows to be maintained. Monitoring will be put in place to assess the quantitative and chemical effect of the infrastructure to ensure that the groundwater flow and quality to the GWDTEs (TN1, TN2 and TN3) are not statistically significantly changed post construction. Monitoring will be carried out based on SEPA guidance and will comprise groundwater monitoring at the three seeps.</li> <li>■ The track between T5 and T6 will be designed to enable subsurface flows to be maintained, with suitable culverts installed under the track so that it does not cut off natural flow pathways. Monitoring will be put in place to assess the quantitative and chemical effect of the infrastructure to ensure that the groundwater flow and quality to GWDTE TN5 are not statistically significantly changed post construction. Monitoring will be carried out based on SEPA guidance and will comprise groundwater monitoring at the spring and at a series of groundwater monitoring wells.</li> <li>■ Pre-construction monitoring at the above locations will commence at least six months before construction commences. Monitoring reports will be prepared, and remedial actions identified if statistically significant changes to the groundwater flow or chemistries to sensitive receptors are identified.</li> </ul> <p>Any excavated peat will be stored appropriately nearby and re-used as soon as possible for reinstatement or restoration.</p> <p>In addition to the reuse of excavated peat to restore eroded areas, drain blocking will be undertaken using standard blocking techniques, most likely peat dams or wave dams (to be determined by Peatland ACTION best practice at the time of construction). It is anticipated that all restoration works (including the hagg 'repairs') will be undertaken by a specialist restoration contractor, rather than the Balance of Plant (BoP) contractor, with excavators working on drain blocking in the periods between hagg repairs and diverting to the latter activities when peat becomes available.</p> <p>Mitigation of peat landslide risk may be achieved through further micro-siting and / or careful construction management and through such mitigation, landslide risks are interpreted to be negligible post-mitigation.</p>	<p>Pre- and post- construction fish habitat surveys will be carried out (see <b>Chapter 8</b>) and there will be an ECoW involved throughout the construction works monitor effectiveness of the measures implemented.</p> <p>Mitigation of residual peat instability risks will be supported by good practice construction measures and by monitoring both during and after construction. Further details are provided in <b>Appendix 7.4</b>.</p> <p>Satisfactory implementation of the PMP in order to mitigate peat loss / disturbance will be assured by monitoring both during and after construction. Further details are provided in <b>Appendix 7.3</b>.</p>

<sup>1</sup> NetRegs (2021) Guidance for Pollution Prevention (GPP) documents. Available at: <https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/>

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<p>Any excavated peat will be appropriately managed and re-used. This is detailed further in the PMP (<b>Appendix 7.3</b>).</p> <p>A detailed CEMP will be developed and agreed with ABC and SEPA in advance of the works. An outline CEMP is provided as <b>Appendix 4.2</b>. The CEMP will establish a framework to ensure that health and safety and environmental best practices are adopted throughout the works and will include:</p> <ul style="list-style-type: none"> <li>■ A Surface Water Management Plan, or similar, which will detail proposed surface drainage measures to treat and deal with all the surface runoff from the Site, to be designed in accordance with SuDS principles and all best practice guides and recognised industry standards.</li> <li>■ The approved PPP which will detail the proposed mitigation measures as identified within this EIA to address each identified pollution risk.</li> <li>■ A plan to monitor and plan the timing of works to avoid construction during periods of the heaviest rainfall.</li> <li>■ A plan to detail emergency procedures in the event of spillages or any other breach.</li> <li>■ A plan to detail monitoring and inspections of the water quantity and quality of sensitive private water supplies and water courses. All actions will be recorded.</li> <li>■ A Site Waste Management Plan to detail proposals for managing the extraction and storage of waste.</li> <li>■ A PMP (see <b>Appendix 7.3</b>)</li> </ul> <p>Additional mitigation is identified during the assessment to address localised site or issue specific likely significant adverse effects and is described within the 'Proposed Mitigation' section.</p> <p>Embedded mitigation measures at watercourse crossing locations include:</p> <ul style="list-style-type: none"> <li>■ Use of bottomless arch or single span crossings wherever possible in the first instance;</li> <li>■ Retention/recreation of natural stream beds where possible;</li> <li>■ Closed pipes used as a last resort; and</li> <li>■ Commitment to set any pipe culverts below the existing watercourse bed wherever possible.</li> </ul> <p>An ECoW (or equivalent) will be on site throughout the construction to monitor the effectiveness of the embedded (and additional) mitigation measures.</p> <p>Watercourses and water features have been buffered by 50m where possible and SuDS measures have been embedded into project design to minimise the risk of siltation from construction and/or spoil heaps entering the water environment.</p>	<p>Cognisance of Scottish Water services and pipework will be required during detailed design and prior to and during construction works, particularly relating to the pipework supplying water to and from the Inveraray WTW. The Applicant will undertake detailed discussion with Scottish Water, including on-site meetings to avoid pipework and plan suitable mitigation measures to install during construction to ensure no damage to SW assets.</p> <p>An ECoW (or equivalent) will be on site throughout the construction to monitor the effectiveness of the embedded and additional mitigation measures.</p>	
<b>Chapter 8: Ecology</b>		
<p>The following will be key features of the CEMP, as detailed in <b>Appendix 4.2</b>:</p> <ul style="list-style-type: none"> <li>■ An Advisory ECoW will be appointed to advise on the content of the CEMP and its delivery. The ECoW will also be present during construction and will also monitor compliance with the CEMP and relevant legislation. The ECoW will regularly provide reports on a weekly basis which will be made available to all relevant site staff including the developer. A detailed Scope of Works for the role will be agreed with NatureScot before construction commences.</li> <li>■ Best practice will be followed in relation to pollution prevention. In particular, all GPPs will be adhered to in detailed design and construction.</li> <li>■ All watercourse crossings will be designed and constructed in line with current best practice and in accordance with a Construction Site Licence (from SEPA) that will be necessary before works commence.</li> <li>■ Mature native trees will be retained wherever possible, and suitable tree protection measures will be implemented as necessary in accordance with BS5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations'.</li> </ul>	<p>For habitats, bats and water voles effects are considered to be minor, and not significant in EIA terms. As such no additional mitigation measures are required. However, specific mitigation applied measures include:</p> <ul style="list-style-type: none"> <li>■ For habitats, implementation of the OREP and PMP as a means of minimising effects on peatland habitats, and identifying areas of peatland in poor condition where restoration will improve the wider site resource. This will include: <ul style="list-style-type: none"> <li>– Extensive restoration of areas of damaged and eroded peat within the Site, including reprofiling and infill (approximately 133ha).</li> <li>– Blocking of drains thereby safeguarding and improving approximately 310ha of peatland.</li> </ul> </li> <li>■ For bats: <ul style="list-style-type: none"> <li>– Trees with bat roost potential will be retained and protected where possible.</li> <li>– All trees to be felled or limbed (or which could be disturbed by increased site activity) will be surveyed for bat activity immediately prior to</li> </ul> </li> </ul>	<p><b>Monitoring</b></p> <p>The development of an integrated monitoring plan is a key commitment in the OREP (<b>Appendix 8.5</b>). Commissioning of the monitoring required under this plan will be the responsibility of the OREP Steering Group, and will be fully funded by the Applicant and includes but isn't limited to:</p> <ul style="list-style-type: none"> <li>■ Vegetation monitoring of unfenced areas to assess the condition of vegetation and to ensure no deleterious effects on unfenced habitats.</li> <li>■ A monitoring regime to establish current occupied water vole habitat and unoccupied but suitable habitat on key watercourses (e.g. the Eas an Amair and tributaries of the Allt Blarghour), and establishment of a mink raft or rafts and regular monitoring in key locations.</li> <li>■ Monitoring of planted trees to assess their success of establishment and ongoing health with regards to disease or grazing.</li> </ul> <p>Post-construction fish habitat surveys and monitoring will be undertaken to ensure that mitigation measures are effective, that crossings maintain fish passage, and that potentially sensitive habitats are retained, and to identify any requirement for improvements or remedial works.</p>

Good Practice / Embedded Mitigation	Additional Mitigation / Enhancement	Monitoring
<ul style="list-style-type: none"> <li>■ Location of infrastructure on non-peat or shallower peat habitats, and less sensitive blanket bog where possible (while recognising that much of the Site comprises blanket bog).</li> <li>■ Minimising of vegetation removal to accommodate access track by using existing tracks and firebreaks where possible.</li> <li>■ Where possible, surface vegetation will be stripped and stored according to best practice methods, and used in restoration of track verges and turbine beds, etc.</li> <li>■ The CEMP will include and be supported by the OREP provided in <b>Appendix 8.5</b> which sets out initial proposals for the restoration of habitats and the overall improvement of the Site's biodiversity. An outline PMP has also been produced and is provided in <b>Appendix 7.3</b>.</li> <li>■ Inclusion of a 50m buffer between watercourses/waterbodies and turbine locations, with the exception of a small number of locations for which a reduced buffer has been observed.</li> <li>■ Minimisation of the number of watercourse crossings.</li> <li>■ Observation of 50m blade clearance from areas of woodland habitats that provide commuting and foraging habitat for bats.</li> <li>■ The CEMP will include and be supported by a Species Protection Plan (SPP) which will set out the approach to the monitoring of protected species during construction. This will include a programme of re-survey to ensure mobile species are protected during works. The SPP will also detail proposals for longer-term monitoring, particularly in relation to bats and water vole. The level of survey effort and the scope of SPP will be proportionate and cognisant of the limited evidence of protected species identified.</li> <li>■ Regular ecological survey updates will be undertaken, to ensure survey data being relied upon during construction is not more than 12 months old as per best practice guidelines, in the season immediately prior to construction (particularly for mobile species, including bats, otter and badger). Where surveys find evidence of new protected features (e.g. resting sites), micro-siting will attempt to avoid effects. If this is not possible, the ECoW will make the necessary protected species licence applications.</li> <li>■ Pre-construction fish habitat surveys will be undertaken at watercourse crossings to provide the habitat baseline within a buffer of up to 100m upstream and downstream and to allow micro-siting of the crossings away from potentially sensitive habitats wherever possible.</li> <li>■ The ECoW will be consulted during micro-siting of watercourse crossings to ensure protection of the water environment and sensitive ecological features (including otter, water vole and fish habitat).</li> <li>■ Post-construction fish habitat surveys will be undertaken to confirm that watercourse crossings have been installed in accordance with the design principles outlined above, to ensure crossings have not resulted in obstructions or loss of potentially sensitive habitats, and to identify remedial works required as necessary.</li> <li>■ Excavations and trenches will be fenced, covered or a means of escape provided when left unattended to prevent animals falling in and becoming trapped.</li> <li>■ Temporary open pipe systems will be capped when unattended to prevent animals accessing them and becoming trapped.</li> </ul>	<p>construction (i.e. within season immediately prior). If bat roosts identified, licensing process will be followed, which will include the provision of alternative roosting features in adjacent trees.</p> <ul style="list-style-type: none"> <li>■ For water vole: <ul style="list-style-type: none"> <li>– Pre-construction surveys of all water-crossings (i.e. within survey season for water vole immediately prior).</li> <li>– Micro-siting will avoid any new burrows identified during update surveys. If unavoidable, ECoW will make necessary protected species licence applications.</li> <li>– All watercourse crossings will be mammal friendly, with banksides retained or mammal ledges installed.</li> <li>– Water vole monitoring as part of the OREP.</li> </ul> </li> </ul> <p>Mitigation is not required in relation to otter, badger, red squirrel and pine marten, as there will be no significant effects on these species during construction. However, the following measures will ensure legislative compliance during construction. These measures will be captured in the CEMP and SPPs. SPPs for the protected species and notable species considered in this assessment will be drawn up and implemented to monitor species during construction and operation. They will include pre-construction survey updates and detail any species-specific mitigation measures required. They will be 'live' documents that will be updated in light of new findings.</p> <ul style="list-style-type: none"> <li>■ Otter: <ul style="list-style-type: none"> <li>– Pre-construction surveys of all watercourse crossings during the survey season immediately prior to construction (no more than six months prior to construction).</li> <li>– Micro-siting of the infrastructure to avoid any new resting sites identified during update surveys. If unavoidable, the EcoW will make necessary protected species licence applications.</li> <li>– All watercourse crossings will be 'mammal friendly', with banksides retained or mammal ledges installed.</li> </ul> </li> <li>■ Badger, Red Squirrel and Pine Marten: <ul style="list-style-type: none"> <li>– Pre-construction surveys of proposed infrastructure routes within forested areas no more than six months prior to construction.</li> <li>– Micro-siting of the infrastructure to avoid any new resting sites (sett/drey/den) identified during update surveys. If unavoidable, the EcoW to make necessary protected species licence applications.</li> </ul> </li> </ul>	<p>The need to update protected species surveys prior to construction will be addressed in the SPPs. This will include the following:</p> <ul style="list-style-type: none"> <li>■ Pre-construction bat surveys of trees with bat roost potential that require to be felled or limbed, or which could be disturbed by increased site activity.</li> <li>■ Pre-construction surveys of all water-crossings immediately prior to construction (i.e. with season immediately prior) to assess use of the locations by otter and water vole.</li> <li>■ Pre-construction surveys of proposed infrastructure routes within forested areas no more than six months prior to construction, to assess the current status with regards badger, red squirrel and pine marten.</li> <li>■ Pre-construction fish habitat surveys in the season prior, to micro-site the crossings away from potentially sensitive habitats wherever possible, and to confirm the habitat baseline within a buffer of up to 100m upstream and downstream.</li> <li>■ Monitoring of a range of ecological features by the ECoW throughout construction of the Proposed Development.</li> <li>■ Post-construction fish habitat surveys and monitoring to ensure mitigation measures are effective, that crossings maintain fish passage, and that potentially sensitive habitats are retained, and to identify any requirement for improvements or remedial works.</li> <li>■ A programme of bat mortality monitoring once the Proposed Development is operational.</li> </ul>
<b>Chapter 9: Ornithology</b>		
<p><b>CEMP</b></p> <p>With specific reference to the protection of ornithological interests during the construction and operation of the Proposed Development, the CEMP will include for a Bird Roosting and Breeding Protection Plan (BRBPP).</p> <p>All wild birds in the UK are protected under the provisions of the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally or recklessly kill, injure or take any wild bird or take, damage or destroy the nest (whilst being built or in use) or its eggs. In addition, all wild birds listed on Schedule 1 of the Act receive additional legal protection which makes it an offence to intentionally or</p>	<p>Whilst no significant effects are predicted, additional mitigation is nonetheless proposed to reduce the potential for collision mortality risks to white-tailed eagle.</p> <p>No potentially significant effects upon any ornithological feature as a result of the Proposed Development are predicted. Additional mitigation is however, proposed to reduce the potential for collision mortality risks to white-tailed eagle.</p> <p>The OREP to be prepared for the Proposed Development, will include for a sensitive grazing regime and which will reduce the presence of livestock and deer. This will</p>	<p>Tbc</p> <p>As Part of the OREP the below monitoring has been proposed in relation to ornithology:</p> <p>Moorland Breeding Birds</p> <ul style="list-style-type: none"> <li>■ Moorland breeding bird surveys will be undertaken to monitor the effect of peat resource restoration measures on moorland breeding birds within the PREA. An updated baseline (Year 0) to map the presence and distribution of moorland breeding birds will be undertaken prior to the commencement of</li> </ul>

Good Practice / Embedded Mitigation	Additional Mitigation / Enhancement	Monitoring
<p>recklessly disturb these species while building a nest, or are using or near a nest containing eggs or young; or to disturb their dependent young.</p> <p>Species listed on Schedule A1 of the Act receive further protection for their habitually used nest sites, with species listed on Schedule 1A of the Act protected from harassment at any time of year.</p> <p>Prior to the commencement of construction activities a BRBPP would be prepared and submitted for agreement in consultation with ABC and NatureScot and which once finalised would form part of the CEMP.</p> <p>The BRBPP will include details of pre-commencement survey methods and protocols, including consultation with relevant consultees, to enable the prevention and/or minimisation of disturbance to breeding and roosting Schedule 1A birds and would be overseen by a suitable competent ECoW.</p> <p>The BRBPP would detail those measures required on account of findings from the pre-commencement breeding bird survey, to ensure the protection of breeding and Schedule 1A roosting birds over the course of construction works, and where required during operational maintenance works, in accordance with NatureScot guidance (2022<sup>2</sup> or best available species guidance applicable at the time, as agreed in consultation with ABC and NatureScot.</p> <p>The BRBPP will also include details of pre-commencement survey methods and protocols, to enable the prevention and/or minimisation of disturbance to lekking black grouse. This will include for the restriction on construction works, including the movement of vehicles along access track routes, within 750 m of any identified lek sites prior to 9am in the months of April and May.</p> <p><b>Site Clearance Activities</b></p> <p>Habitat clearance activities, where these coincide with the breeding bird season (1st March to 31st August, inclusive) would be subject to a pre-clearance survey by a competent ornithologist to identify any active wild bird nests. Should any active nests be found, works would only proceed under the advice of the appointed ornithologist and following a disturbance risk assessment. This would include all works within the Site (i.e., both the Site and along the Site access route).</p> <p>Work exclusion buffers around identified nest sites would be implemented where necessary in accordance with the BRBPP.</p> <p><b>Habitat Management Plan</b></p> <p>An OREP is presented as <b>Appendix 8.5</b> of the EIA Report and will be finalised in consultation with ABC, NatureScot and other stakeholders.</p> <p>The OREP includes for peat restoration, grazing management and landscape improvement measures. Such measures will serve to enhance habitats within the Site, away from Proposed Development infrastructure for moorland breeding birds, black grouse and foraging eagles. Such measures are considered to sufficiently offset direct habitat losses as a result of the Proposed Development.</p>	<p>have the effect of reducing the incidence of carrion prey for white-tailed eagle and therefore foraging opportunities within the Site, close to operational turbines.</p> <p>An Operational Carcass Monitoring and Recovery Strategy (OCMRS) will be agreed and implemented for the Proposed Development in consultation with ABC and NatureScot by way of planning condition.</p> <p>The OCMRS would include protocols and the frequency for the search and removal of livestock and deer carcasses from within proximity to operational turbine locations. The OCMRS will be agreed prior to the commissioning of the Proposed Development, and its requirement reviewed periodically on the basis of the presence and proximity of occupied white-tailed eagle breeding ranges and the conservation status of the regional NHZ 14 population.</p> <p>The OREP includes for peat restoration, tree planting, grazing management and species specific habitat management measures. Such measures, once finalised, will serve to enhance habitats within the Site, away from Proposed Development infrastructure for moorland breeding birds, black grouse and foraging and nesting raptors. Such measures are considered to sufficiently offset direct habitat losses as a result of the Proposed Development</p>	<p>construction works, with monitoring subsequently undertaken in years 1, 3, and 5 of wind farm operation, then subsequently every five years subject to review.</p> <p>Hen Harrier</p> <ul style="list-style-type: none"> <li>■ Breeding hen harrier surveys will be undertaken to monitor the effect of peat resource restoration measures on the use of habitats by hen harrier and the uptake of nesting habitat. An updated baseline (Year 0) will be undertaken prior to commencement of construction works, with monitoring subsequently undertaken in Years 1, 3 and 5 of wind farm operation, and then subsequently every five years subject to review.</li> <li>■ Monitoring in each year will map and assess the condition of areas of mature heather cover suitable for nesting harriers, and will record flight activity and evidence of breeding attempts through protocols agreed in consultation with Argyll and Bute Council and NatureScot.</li> </ul> <p>Black Grouse</p> <ul style="list-style-type: none"> <li>■ Black grouse lek surveys will be undertaken to monitor the effect of peat resource restoration measures on local black grouse populations. An updated baseline (Year 0) will be undertaken prior to commencement of construction works, with monitoring subsequently undertaken in Years 1, 3 and 5 of wind farm operation, then subsequently every five years subject to review.</li> <li>■ Monitoring in each year will comprise black grouse lek site surveys and inspection of black grouse collision avoidance measures.</li> </ul> <p>Golden eagle prey species monitoring</p> <ul style="list-style-type: none"> <li>■ Golden eagle prey species monitoring surveys will be undertaken to monitor the effect of peat resource restoration measures (including grazing management) on golden eagle prey abundances. A baseline (Year 0) will be undertaken prior to commencement of construction works, with monitoring subsequently undertaken in Years 1, 3 and 5 of wind farm operation, then subsequently every five years subject to review.</li> <li>■ Monitoring in each year will comprise prey transects, adopting protocols to be agreed in consultation with Argyll and Bute Council and NatureScot.</li> </ul> <p>Consultation will also be undertaken with the Argyll Raptor Study Group to agree protocols for monitoring of the golden eagle range, including monitoring of breeding occupancy, outcomes and productivity and nest prey remains.</p>
<b>Chapter 10: Cultural Heritage</b>		
<p>Good practice measures to prevent, reduce, and/or where possible offset potential physical effects to unknown archaeological remains are proposed. Measures which may be adopted include:</p> <ul style="list-style-type: none"> <li>■ Exclusion of known assets from micro-siting areas, as follows: <ul style="list-style-type: none"> <li>– Allt Bail' A' Ghobhainn 1, shielings (WoSAS 44193; WK-8);</li> <li>– Allt Bail' A' Ghobhainn 2, shielings (WK-4);</li> <li>– Loch Sionnach, shielings and enclosure (WK-5);</li> <li>– North Cromalt, memorial cairn to Gertrude Canning, WRN (WoSAS 66814); and</li> <li>– Upper Avenue, cisterns (WK-7).</li> </ul> </li> <li>■ The fencing off or marking out of heritage assets in proximity to working areas, in particular, the memorial to Gertude Canning, WRN, (WoSAS 66814) noted</li> </ul>	<p>No further mitigation above what is detailed in the adjacent column is proposed.</p>	<p>Monitoring would be undertaken by the AcoW/HECoW as required.</p>

<sup>2</sup> NatureScot (2022) Disturbance Distances in Selected Scottish Bird Species. NatureScot, Guidance.



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<p>above which located on a bend adjacent to the access track where upgrades are proposed on the Upper Avenue</p> <ul style="list-style-type: none"> <li>■ Provision of detailed constraints mapping to contractors working on the site to enable avoidance of accidental damage.</li> <li>■ Implementation of a working protocol should unrecorded heritage assets (e.g. archaeological deposits and features) be discovered.</li> <li>■ The use a CEMP, supplemented by of toolbox talks as appropriate, to highlight the historic environment sensitivities of the Site to those working on the Proposed Development.</li> <li>■ Appointment of an Archaeological Clerk of Works (AcoW) or Historic Environment Clerk of Works (HECoW) to supervise ground-breaking operations and provide on-site advice on avoidance of effects (e.g. working with Ecological Clerk of Works to make decisions on retention / conservation of specimen trees; providing on-site identification and recording of previously unrecognised assets, and liaising with the local authority archaeological adviser as necessary).</li> </ul> <p>The local authority archaeological adviser (WoSAS) will provide guidance on appropriate conditions to be applied to an eventual consent. A Written Scheme of Investigation (WSI) to be submitted to WoSAS for approval prior to any construction works (including enabling works) commencing on site. The WSI is likely to include measures relating to fencing/marketing out of assets, removal of assets for micrositing, and implementation of a working protocol should unrecorded archaeological features be discovered, and provision of written guidelines and constraints mapping to all contractors, accompanied by appropriate briefing to ensure sensitivities are understood.</p> <p>How turbines will appear within the setting of assets has been a key consideration in design refinements. Care has been taken to avoid turbines being either skylined in views toward assets or being located on key lines of sight to and between assets. These considerations have been central to the reduction in turbine numbers and the finalised layout. There are no appropriate mitigation measures for operational effects as any measures to mitigate visibility of turbines are likely to be more visually intrusive than the turbines themselves.</p>		
<b>Chapter 11: Noise and Vibration</b>		
<p>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:</p> <ul style="list-style-type: none"> <li>■ Those activities that may give rise to audible noise at the surrounding properties and heavy goods vehicle deliveries to the site would be limited to the hours 07:00 to 19:00 Monday to Friday and 07:00 to 13:00 on Saturdays. Turbine deliveries would only take place outside these times with the prior consent of Argyll and Bute Council and the Police Scotland . Those activities that are unlikely to give rise to noise audible at the site boundary will continue outside of the stated hours.</li> <li>■ All construction activities shall adhere to good practice as set out in BS 5228.</li> <li>■ 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.</li> <li>■ Where flexibility exists, activities will be separated from residential neighbours by the maximum possible distances.</li> <li>■ A site management regime will be developed to control the movement of vehicles to and from the Proposed Development site.</li> <li>■ 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.</li> </ul>	<p>For the upgrade of access track works occurring within 200m of a receptor, construction noise can be minimised through the CEMP by:</p> <ul style="list-style-type: none"> <li>■ selecting quieter alternative plant and equipment;</li> <li>■ fitting silencers, where available; and</li> <li>■ introducing temporary acoustics barriers in the direct line of sight between noisy plant and the receptor at its closest point.</li> </ul> <p>It is possible, that for the closest receptor, R16 Croit A Bhile, while access track upgrade works are occurring at the minimum distance, the construction noise threshold of 65 dB may be briefly exceeded after the above mitigation is employed. This elevated noise level would however quickly diminish as work progresses along the access track and the distance increases. For other locations, the mitigation would reduce noise from construction activity below the threshold.</p>	<p>No monitoring measures are proposed.</p>
<b>Chapter 12: Traffic and Transport</b>		
<p>The Applicant will commit to measures to ensure the safe and efficient movement of construction traffic on the road network.</p> <p>During the construction period, a project website, blog or Twitter feed would be regularly updated to provide the latest information relating to traffic movement</p>	<p>No specific mitigation is required.</p>	<p>No further surveys or monitoring is required beyond that proposed within the CTMP.</p>

Good Practice / Embedded Mitigation	Additional Mitigation / Enhancement	Monitoring
<p>associated with vehicles accessing the site. This would be agreed with the local roads authority.</p> <p>The following measures would be implemented during the construction phase through the CTMP:</p> <ul style="list-style-type: none"> <li>■ Where possible the detailed design process would minimise the volume of material to be imported to site to help reduce HGV numbers.</li> <li>■ A site worker transport and travel arrangement plan, including transport modes to and from the worksite (including pick up and drop off times).</li> <li>■ All materials delivery lorries (dry materials) will be sheeted to reduce dust and stop spillage on public roads.</li> <li>■ Specific training and disciplinary measures will be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway.</li> <li>■ Wheel cleaning facilities may be established at the site entrance, depending the views of Argyll and Bute Council and Transport Scotland (for the Inveraray bypass).</li> <li>■ Unless otherwise agreed with the roads authorities, normal site working hours would be limited to between 07:00 and 19:00 (Monday to Friday and 07:00 and 13:00 (Saturday) though component delivery and turbine erection may take place outside these hours.</li> <li>■ Appropriate traffic management measures would be put in place on the A83 (T) to avoid conflict with general traffic, subject to the agreement of the roads authority. Typical measures would include HGV turning and crossing signs and banksman where necessary.</li> <li>■ Provide construction updates on the project website and or a newsletter to be distributed to residents within an agreed distance of the site.</li> <li>■ Adoption of a voluntary speed limit of 15 mph for all construction vehicles through Inveraray, Furnace, Minard, Lochgair, Lochgilphead and Ardrishaig.</li> <li>■ All drivers would be required to attend an induction to include: <ul style="list-style-type: none"> <li>– A tool box talk safety briefing;</li> <li>– The need for appropriate care and speed control;</li> <li>– A briefing on driver speed reduction agreements (to slow site traffic at sensitive locations through the villages); and</li> <li>– Identification of the required access routes and the controls to ensure no departure from these routes.</li> </ul> </li> </ul> <p>Transport Scotland may request that an agreement to cover the cost of abnormal wear on its network is made.</p> <p>Video footage of the pre-construction phase condition of the abnormal loads access route and the construction vehicles route would be recorded to provide a baseline of the condition of the road prior to any construction work commencing. This baseline would inform any change in the road condition during the construction phase. Any necessary repairs would be coordinated with Argyll and Bute Council and Transport Scotland. Any damage caused by traffic associated with the Proposed Development during the construction period that would be hazardous to public traffic would be repaired immediately.</p> <p>Damage to road infrastructure caused directly by construction traffic would be made good and street furniture that is removed on a temporary basis would be fully reinstated.</p> <p>There would be a regular road review and any debris and mud would be removed from the carriageway using an onsite road sweeper to ensure road safety for all road users.</p> <p>Before the AILs traverse the route, the following tasks would be undertaken to ensure load and road user safety:</p> <ul style="list-style-type: none"> <li>■ Ensure any vegetation which may foul the loads is trimmed back to allow passage;</li> </ul>		

Good Practice / Embedded Mitigation	Additional Mitigation / Enhancement	Monitoring
<ul style="list-style-type: none"> <li>■ Confirm there are no roadworks or closures that could affect the passage of the loads;</li> <li>■ Check no new or diverted underground services on the proposed route are at risk from the abnormal loads; and</li> <li>■ Confirm the police are satisfied with the proposed movement strategy.</li> </ul> <p><b>Abnormal Load Transport Management Plan</b></p> <p>An Abnormal Load Transport Management Plan will be prepared to cater for all movements to and from the Proposed Development. This would include:</p> <ul style="list-style-type: none"> <li>■ Procedures for liaising with the emergency services to ensure that police, fire and ambulance vehicles are not impeded by the loads. This is normally undertaken by informing the emergency services of delivery times and dates and agreeing communication protocols and lay over areas to allow overtaking.</li> <li>■ A diary of proposed delivery movements to liaise with the communities to avoid key dates such as popular local events etc.</li> <li>■ A protocol for working with local businesses to ensure the construction traffic does not interfere with deliveries or normal business traffic.</li> <li>■ Proposals to establish a construction liaison committee to ensure the smooth management of the project / public interface with the applicant, the construction contractors, the local community, and if appropriate, the police forming the committee. This committee would form a means of communicating and updating on forthcoming activities and dealing with any potential issues arising.</li> <li>■ A protocol for working with local businesses to ensure the construction traffic does not interfere with deliveries or normal business traffic.</li> <li>■ Proposals to establish a construction liaison committee to ensure the smooth management of the project / public interface with the applicant, the construction contractors, the local community, and if appropriate, the police forming the committee. This committee would form a means of communicating and updating on forthcoming activities and dealing with any potential issues arising.</li> </ul> <p><b>Onsite Measures delivered using a Access Management Plan</b></p> <p>Within the Site and on the Inveraray bypass, consideration has been given to path users (for example pedestrians, cyclists and horse riders) due to potential interactions between construction traffic and users of the core paths. A Path Planning Study will be conducted post consent and will be secured through a planning condition. Findings from the study will be used to formulate a set of measures into a Access Management Plan (AMP) which will be reviewed by the Principal Contractor and updated prior to construction (An Outline AMP has been provided in <b>Appendix 13.1</b>).</p> <p>Path users will be separated from construction traffic through the use of barriers, and this will ensure that safe access to the Site for recreational purposes will be maintained. Crossing points will be provided where required, with path users having right of way. Appropriate Traffic Signs Manual Chapter 83 compliant temporary road signage would be provided to assist at these crossings for the benefit of all path users.</p> <p>The principal contractor will ensure that speed limits are always adhered to by their drivers and associated subcontractors. This is particularly important within close proximity to the core paths and at crossing points. Advisory speed limit signage will also be installed on approaches to areas where path users may interact with construction traffic.</p> <p>Signage will be installed on the Site exits that makes drivers aware of local speed limits and reminding drivers of the potential presence of path users in the area. This will also be emphasised in the weekly tool box talks.</p> <p><b>A Staff Travel Plan</b></p>		

<sup>3</sup> UK Government, <https://www.gov.uk/government/publications/traffic-signs-manual>

Good Practice / Embedded Mitigation	Additional Mitigation / Enhancement	Monitoring
<p>A Staff Travel Plan will be deployed where necessary, to manage the arrival and departure profile of staff and to encourage sustainable modes of transport, especially car-sharing. A package of measures could include:</p> <ul style="list-style-type: none"> <li>■ Appointment of a Travel Plan Coordinator;</li> <li>■ Provision of public transport information;</li> <li>■ Mini-bus service for transport of site staff;</li> <li>■ Promotion of a car sharing scheme; and</li> <li>■ Car parking management.</li> </ul> <p><b>Off Site Works</b></p> <p>It is anticipated that an agreement on wear and tear on road infrastructure caused directly by construction traffic will be established prior to construction commencing. The agreement will set out the area of review, scope and response requirement of any dilapidations that can be proven to be linked to construction traffic.</p> <p>The AIL RSR highlights a number of constraint points which have been assessed within the report using swept path assessment software. Key points and issues associated with the route that requires the temporary removal of physical obstructions are outlined in <b>Appendix 12.1</b>.</p> <p>The locations of the constraint points and swept path drawings are included in <b>Appendix 12.1</b>. All mitigation works can be designed to be temporary in nature to enable the restoration to their original condition, if required by ABC or TS.</p> <p>All public roads works will be subject to survey and detailed engineering drawings will be submitted to ABC and TS for approval and secured via an appropriate planning condition of the technical approval process. It is suggested that this is undertaken once the candidate turbine selection process has identified the exact requirements of the necessary mitigation.</p>		
<b>Chapter 13: Socio-economics</b>		
<p>As good practice, a CTMP will be implemented for the Proposed Development to manage the effect of construction traffic on the public road network, following the principles set out in <b>Chapter 12</b> and as noted above. This will include measures such as ensuring roads are maintained in a clean and safe condition, deploying a wheel washing facility onsite to reduce mud and debris being deposited onto surrounding roads and the erection of Site signage along the traffic route to warn people of construction activities and associated construction vehicles.</p> <p>Standard health and safety mitigation will be implemented during the construction period of the Proposed Development as outlined in the CTMP and Outline CEMP.</p>	<p>As the Site access encroaches on three Core Paths, a site-specific Access Management Plan (AMP) will also be prepared for use during construction to ensure that health, safety and public access isn't adversely affected. An Outline AMP has been provided in <b>Appendix 13.1</b>.</p>	<p>No monitoring is proposed.</p>
<b>Chapter 14: Other Issues</b>		
<p>No specific mitigation measures are proposed in relation to climate change, although a CTMP, as referenced in <b>Chapter 12</b>, will be implemented as good practice, with the intention that measures will be implemented to ensure traffic movements are undertaken efficiently during construction, and unnecessary journeys avoided.</p> <p>The Proposed Development is designed to cope with changes in temperature and rainfall. Turbines will shut down if winds are too strong or if overheating occurs, and appropriate infrastructure design including maintaining up to a 50m buffer around watercourses where possible<sup>4</sup> and the incorporation of standard good practice measures for site drainage (including SuDS principles and designing all watercourse crossings and infrastructure to withstand a 1:200 year flood event where appropriate<sup>5</sup>) will be achieved.</p>	<p>No additional mitigation is proposed.</p>	<p>No monitoring is proposed.</p>

<sup>4</sup> Locations where a 50m buffer cannot be achieved are described in the assessment and Appendix 7.1.

<sup>5</sup> Consultation with the flood risk and drainage office at ABC concluded that sizing crossings to pass the 1 in 200 year flow plus climate change allowance could potentially lead to large culverts/crossings, which are not necessarily applicable for peatland watercourses in rural upland areas and could potentially cause damage to morphology of channels and peatlands (e.g., due to increased scour by oversized culverts). In addition, flood risk in the rural upland area is not an issue, so crossings designed for smaller return period flows may be more applicable in this environment.