






# 17 Summary of Residual Effects

## 17.1 Introduction

17.1.1 Tables 17.1 and 17.2 provide a quick reference to each of the significant residual environmental effects identified in the technical sections of this Environmental Statement (ES), as well as a cross reference to the relevant mitigation measures identified.

17.1.2 The significant residual effects are highlighted in a “traffic light” formula for ease of identification of beneficial and adverse effects as shown below.

	Major beneficial
	Moderate beneficial
	Non-significant
	Moderate adverse
	Major adverse

17.1.3 Table 17.3 provides a summary of the cumulative effects of the proposed development in combination with other proposed, consented and operation developments within the area.

Table 17.1 - Summary of Residual Effects – Construction and Decommissioning/Restoration Phases

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
<b>Landscape and Visual</b>					
Considered against Operational Effects					
<b>Ecology and Nature Conservation</b>					
<i>Habitats</i>					
Blanket Bog –Loss or degradation	Moderate	Adverse	<p>Mitigated through design.</p> <p>Monitoring and control measures in OHMP and CEMP.</p> <p>An Ecological Clerk of Works (ECOW) will be present on site to oversee enabling works and construction.</p> <p>There is a risk that, over time some of the more sensitive areas of deep peat with water level dependent vegetation could be affected by changes in hydrology brought about by the development.</p> <p>Existing areas of peat erosion with the study area will be stabilised and enhanced through the use of grip locking were appropriate. The pressure on these areas will be further reduced through the reduction in the levels of deer grazing.</p> <p>Peat extracted to allow for construction of access tracks will be translocated into areas with significant peat erosion.</p> <p>Areas of blanket bog south of Loch Mheugaidgh highlighted as being sub-optimal due to drying are to be enhanced through a re-wetting program.</p> <p>Further enhancement of blanket bog will be brought about through the felling of Garrocher plantation and the restoration of the modified bog which is present beneath.</p> <p>Restoration measures are detailed in the Outline Habitat</p>	Negligible	Adverse

			Management Plan		
Wet Heath - Loss or degradation	Moderate	Adverse	Mitigated through design. Areas of heathland are to be avoided by the development of the windfarm	Negligible	Adverse
Dry Heath - Loss or degradation	Negligible	Adverse	Areas of acid grassland are to be avoided by the development of the windfarm	Negligible	Adverse
Acid Grassland - Loss or degradation	Negligible	Adverse	Monitoring and control measures in OHMP and CEMP.  Details of measures to be undertaken to protect the watercourses are presented in Chapter 10: Hydology, Geology and Hydrogeology. Chemicals will be stored safely in bunded containers at a minimum distance of 100 m from a waterbody, and covering pipes and holes to avoid otter entrapment. A speed limit of 15mph will be enforced for any vehicle on site in order to reduce the risk of collision.	Negligible	Adverse
<b>Species</b>					
Loss of nationally scarce plant species – Interrupted club-moss and Dwarf birch.	Low	Adverse	Mitigated through design. Pre-commencement survey. If plants cannot be avoided, translocation to suitable receptor site within the Study area will be carried out.	Negligible	Adverse
Otter –disturbance, habitat loss, injury or death.	Negligible	Adverse	Mitigated through design.  Monitoring and control measures in OHMP and CEMP.  Chemicals will be stored safely in bunded containers at a minimum distance of 100 m from a waterbody, and covering pipes and holes to avoid otter entrapment. A speed limit of 15mph will be enforced for any vehicle on site in order to reduce the risk of collision. An ECoW will be present on site to oversee enabling works and construction. Any maintenance works will take place during the day so as to minimise disturbance to otter.	Negligible	Adverse
Water Vole - disturbance, habitat loss, injury or death	Negligible	Adverse	Mitigated through design.  Monitoring and control measures in OHMP and CEMP.  Chemicals will be stored safely in bunded containers at a minimum distance of 100 m from a waterbody, and covering pipes and holes	Negligible	Adverse

			to avoid water vole entrapment. A speed limit of 15mph will be enforced for any vehicle on site in order to reduce the risk of collision. An ECoW will be present on site to oversee enabling works and construction.		
Pine Marten - disturbance, habitat loss, injury or death	Negligible	Adverse	Monitoring and control measures in OHMP and CEMP.  Chemicals will be stored safely in bunded containers, covering pipes and holes to avoid pine marten entrapment. A speed limit of 15mph will be enforced for any vehicle on site in order to reduce the risk of collision. An ECoW will be present on site to oversee enabling works and construction.  Any maintenance works will take place during the day so as to minimise disturbance to pine marten.	Negligible	Adverse
Bats - disturbance, habitat loss, injury or death	Negligible	Adverse	Mitigated through design.  Monitoring and control measures in OHMP and CEMP.  An ECoW will be present on site to oversee enabling works and construction.	Negligible	Adverse
Fish - habitat loss, injury or death	Moderate	Adverse	Monitoring and control measures in OHMP and CEMP.  The CEMP will include details of silt mitigation measures. These will include silt traps, sumps and cut off drains to direct clean water away from working areas.  An ECoW will be present on site to oversee enabling works and construction.  The ECoW will be able to halt works should it be found that siltation prevention measures are not working sufficiently to avoid affecting the SAC.	Negligible	Adverse
<b>Ornithology</b>					
<i>Bird Species</i>					
Golden eagle – Displacement from foraging habitat	Negligible	Adverse	Monitoring and control measures in OHMP and CEMP.	Negligible	Adverse
Golden eagle –Displacement from nest site	Moderate	Adverse	Monitoring of nest site and control measures in OHMP and CEMP.  Measures will be carried out including fixed barge routes and speed limits to reduce this disturbance to eagles.	Negligible	Adverse

Hen harrier - Displacement from nest site	Negligible	Adverse	Monitoring and control measures in OHMP and CEMP.	Negligible	Adverse
Merlin – Displacement, loss of a nest site	Low	Adverse	Monitoring and control measures in OHMP and CEMP.	Negligible	Adverse
Peregrine	No construction effects identified	-	None required	Negligible	Adverse
Osprey	Negligible	Adverse	None required	Negligible	Adverse
Golden plover - Displacement from nest site	Low	Adverse	Monitoring and control measures in OHMP and CEMP	Negligible	Adverse
Greenshank - Displacement from nest site	Moderate	Adverse	Monitoring and control measures in OHMP and CEMP. Avoidance of nest site by 300m	Negligible	Adverse
Black grouse - Displacement from lek site	Low	Adverse	Monitoring and control measures in OHMP and CEMP.	Negligible	Adverse
Red-throated diver - Displacement from nest site	Negligible	Adverse	Control measures in CEMP.	Negligible	Adverse
Red-throated diver – Displacement from foraging	Low	Adverse	Control measures in CEMP.	Negligible	Adverse
<b>Cultural Heritage</b>					
Direct impact on alignment of trackway (asset 3)	Negligible	Adverse	None required	Negligible	Adverse
Direct impact on buried archaeology	Minor	Adverse	Watching brief - Planning Condition - preservation by record	Negligible	Adverse
All other assets (1, 2, 4-8)	No effect		Mitigated through design	No effect	
<b>Geology, Hydrogeology and Hydrology</b>					
<b>Surface and Ground Waters</b>					
Detrimental impacts to on-site and downstream water quality	Minor	Adverse	Appropriate drainage design that incorporates sediment management measures to attenuate and treat runoff from construction activities.	Not Significant	Non-significant

Detrimental effects to on-site and downstream fisheries as a result of changes to water quality	Minor	Adverse	Appropriate storage and handling of potential pollutants.  Refuelling of construction plant in designated areas.	Not Significant	Non-significant
Increases to on-site and downstream flood risk as a result of poor construction practices (including construction of watercourse crossings)	Minor	Adverse	Adoption and agreement on emergency measures should significant effects occur.  Mitigation should include appropriate design of watercourse crossings to maintain hydraulic connectivity.	Not Significant	Non-significant
<b>Peat and Peat Stability</b>					
Degradation of peat or peat dominated soils as a result of interrupting surface and sub-surface drainage pathways.	Minor	Adverse	Appropriate drainage design that incorporates sediment management measures to attenuate and treat runoff from construction activities.  Measures will be designed to encourage water retention within peat/soils.  Identification of subsurface hydrological pathways prior to construction.  Appropriate design of watercourse crossings in areas of flush.	Not Significant	Non-significant
Increase risk of peat slide as a result of poor construction and management of peat stockpiles.	Minor	Adverse	Adoption of geotechnical risk register.	Not Significant	Non-significant
<b>Noise</b>					
Maximum predicted construction noise levels at Tighnabruich exceed threshold values for evenings and weekends.	Moderate	Adverse	Restriction on working hours, avoiding evenings and weekends.	No effect	
Maximum predicted construction noise levels at all other properties are below threshold values for all periods of working.	Moderate	Adverse	None required	Moderate	Adverse

Aviation, Radar and Telecommunications and Shadow Flicker					
No effects to aviation, radar or telecommunications anticipated.					
Access, Traffic & Transport					
Traffic Impact					
Construction vehicles will carry mud and debris onto the carriageway	Moderate	Adverse	Wheel washing facilities will be installed on the access road.	No effect	
Effect of abnormal loads on traffic flow	Negligible	Adverse	Escorts vehicles and delivery programme timed to cause minimal disruption.	Negligible	Adverse
Effects of abnormal loads on the local road network	Negligible	Adverse	Accommodation and reinstatement works. Initial and completion inspection surveys with agreement to return to existing condition	Negligible	Adverse
Increased HGV traffic on local roads	Negligible	Adverse	The number of HGV trips required during the construction phase has been minimised by proposals to utilise an on-site borrow pit for all roadstone requirements. This is subject to approval from Perth & Kinross Council.  Specific travel routes and time periods to and from the development site will be defined for delivery vehicles.	Negligible	Adverse
Socio-Economics and Tourism					
Perth and Kinross Economy	Moderate	Beneficial	N/A	Moderate	Beneficial
Scottish economy	Negligible				
Visitor numbers and visitor spend	No effects anticipated				

Table 17.2 - Summary of Residual Effects – Operation

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
<b>Landscape and Visual</b>					
<i>Landscape Character</i>					
3 Highland Summits and Plateaux (i) Talla Bheith and Craiganour Forest	Substantial (within up to approximately 1km from the wind farm) Substantial/ Moderate (in the area up to around 4km from which the scheme would be visible)	Adverse	Mitigated through design.	Substantial Substantial/Moderate	Adverse
3 Highland Summits and Plateaux (iii) Carn Gorm/ Schiehallion	Moderate	Adverse		Moderate	Adverse
2a Upper Highland Glens with Lochs Loch Ericht	Substantial (within up to approximately 1km from the wind farm and for the southern part of the character area beyond 1km of a turbine where the scheme would be visible)	Adverse		Substantial	Adverse
IVa Loch Ericht Loch Ericht	Substantial for a very small section of the lower slopes of Ben Alder.	Adverse		Substantial	Adverse
I Isolated Mountain Plateau Ben Alder	Substantial for a very small section of the slopes of Ben Alder.	Adverse		Substantial	Adverse
4 Plateaux Moor Rannoch Moor	Moderate from the section of the unit towards the centre of the Moor where the scheme would be visible	Adverse		Moderate	Adverse
1 Blanket Bog Western edge of Rannoch Moor	Moderate from the small section of the Moor where the scheme would be visible.	Adverse		Moderate	Adverse
<i>Landscape Designations</i>					



Description of Effect		Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
		Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Loch Rannoch and Glen Lyon NSA	It has been assessed that there would be substantial significant effects on landscape character and visual amenity within parts of the Loch Rannoch and Glen Lyon NSA. It is not considered however that the proposals would have significant harm to the special qualities of the NSA. The mountain grandeur, wild summits and natural beauty within the NSA would not be directly affected by the proposed development, which lies beyond the NSA boundary with the nearest turbine over 1.8km away, and would remain appreciable following construction of the development.		Adverse	Mitigated through design.	Substantial	Adverse
Ben Alder 'Search Area for Wild Land'	The northernmost part of the Talladh-a-Bheithe site, where no turbines are proposed to be sited, lies within a 'Search Area for Wild Land'. It is judged that whilst being located within a Search Area the northern part of the Talladh-a-Bheithe estate does not have the same characteristics and attributes of core wild land as much of the central section of the Search Area to the west of Ben Alder and to the east of Ben Nevis. These areas are more rugged, remote and inaccessible when compared to the Talladh-a-Bheithe estate which lies adjacent to a loch managed and dammed as part of hydroelectric generation scheme and areas of plantation forestry and is traversed by a tarmac road. However, should it be considered that this area did form wild land, it is acknowledged that the assessment of effects on visual amenity landscape character did identify some substantial significant effects within this area.					
<b>Visual Receptors</b>						
<b>Viewpoint 4</b> Leagag	Substantial		Adverse	Mitigated through design.	Substantial	Adverse
<b>Viewpoint 5</b> Meall Buidhe (Peak at the southern extent of Meall Buidhe ridge)	Substantial		Adverse		Substantial	Adverse
<b>Viewpoint 6</b> Meall a Mhuic	Substantial		Adverse		Substantial	Adverse

Description of Effect		Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
		Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
<b>Viewpoint 7</b> Meall Garbh	Moderate/ Substantial		Adverse		Moderate/ Substantial	Adverse
<b>Viewpoint 8</b> Schiehallion	Moderate/ Substantial		Adverse		Moderate/ Substantial	Adverse
<b>Viewpoint 9</b> Beinn Mholach	Moderate/ Substantial		Adverse		Moderate/ Substantial	Adverse
<b>Viewpoint 10</b> Loch Erich, shoreline	Substantial		Adverse		Substantial	Adverse
<b>Viewpoint 11</b> Ben Alder summit	Moderate		Adverse		Moderate	Adverse
<b>Viewpoint 19</b> Rannoch Moor – within the moor	Moderate		Adverse		Moderate	Adverse
<b>Viewpoint 21</b> Meall Gorm	Substantial		Adverse		Substantial	Adverse
<b>Viewpoint 22</b> Sgor Gaibhre	Substantial		Adverse		Substantial	Adverse
<b>Viewpoint 23</b> Sron Bealach (Ben Alder massif)	Substantial		Adverse		Substantial	Adverse
<b>Viewpoint 24</b> Beinn Udlamain	Moderate/ Substantial		Adverse		Moderate/ Substantial	Adverse
<b>Viewpoint 25</b> Carn Dearg	Moderate/ Substantial		Adverse		Moderate/ Substantial	Adverse
<b>Ecology and Nature Conservation</b>						
<i>Habitats</i>						
Blanket Bog	Negligible	Adverse	SEPA Good Practice Guide adopted to minimise potential of pollution incidents to occur.	Negligible	Adverse	
Wet Heath	Negligible	Adverse	SEPA Good Practice Guide adopted to minimise potential of pollution incidents to occur.	Negligible	Adverse	
Dry Heath	Negligible	Adverse	SEPA Good Practice Guide adopted to minimise potential of pollution incidents to occur.	Negligible	Adverse	

Acid Grassland	Negligible	Adverse	SEPA Good Practice Guide adopted to minimise potential of pollution incidents to occur.	Negligible	Adverse
<b>Species</b>					
Otter	Negligible	Adverse	SEPA Good Practice Guide adopted to minimise potential of pollution incidents to occur. Any maintenance works will be undertaken during the day. 15mph speed limit maintained.	Negligible	Adverse
Water Vole	Negligible	Adverse	SEPA Good Practice Guide adopted to minimise potential of pollution incidents to occur. Any maintenance works will be undertaken during the day. 15mph speed limit maintained.	Negligible	Adverse
Pine Marten	Negligible	Adverse	SEPA Good Practice Guide adopted to minimise potential of pollution incidents to occur. Any maintenance works will be undertaken during the day. 15mph speed limit maintained.	Negligible	Adverse
Bats	Negligible	Adverse	Any maintenance works will be undertaken during the day. 15mph speed limit maintained.	Negligible	Adverse
Fish	Negligible	Adverse	SEPA Good Practice Guide adopted to minimise potential of pollution incidents to occur. Any maintenance works will be undertaken during the day. 15mph speed limit maintained.	Negligible	Adverse
<b>Ornithology</b>					
<b>Bird Species</b>					
Pink-footed goose -Collision	Negligible	Adverse	None required	Negligible	Adverse
Golden eagle – Adult Birds. Collision	Low	Adverse	Mitigated through design.	Negligible	Adverse
Golden eagle – Sub-adult Birds. Collision	High	Adverse	Habitat enhancement outside site in OHMP.  Food resources will also be managed to encourage eagles away from the collision risk area	Negligible	Adverse

Hen harrier – Collision and Displacement from foraging habitat	Negligible	Adverse	None required	Negligible	Adverse
Merlin- Collision	Negligible	Adverse	None required	Negligible	Adverse
Merlin- Displacement from nesting habitat	Low	Adverse	Habitat enhancement outside site.	Negligible	Adverse
Peregrine- Collision	Negligible	Adverse	None required	Negligible	Adverse
Osprey- Collision	Negligible	Adverse	None required	Negligible	Adverse
Golden plover- Displacement from the nest site	Low	Adverse	Mitigated through design. Monitoring	Negligible	Adverse
Golden plover- Collision	Negligible	Adverse	None required	Negligible	Adverse
Greenshank- Displacement from the nest site	Low	Adverse	Mitigated through design. Monitoring and control measures in HMP.	Negligible	Adverse
Greenshank - Collision	Negligible	Adverse	None required	Negligible	Adverse
Black grouse- Displacement from foraging habitat	Low	Adverse	Operational procedures and OHMP	Negligible	Adverse
Black grouse- Collision	Negligible	Adverse	None required	Negligible	Adverse
Red throated diver- Displacement from foraging habitat	Negligible	Adverse	None required	Negligible	Adverse
Red throated diver- Collision	Negligible	Adverse	None required	Negligible	Adverse
<b>Cultural Heritage</b>					
<i>Assets requested for assessment by consultees</i>					
Grampian Hydro Electric Scheme (Rannoch Power Station; HB Num 51716 and valve house; 51717)	Minor	Adverse	Mitigated through design	Minor	Adverse

Eilean nam Faoileag Tower (HB Num 12241)	Minor	Adverse	Mitigated through design	Minor	Adverse
Rannoch Lodge (HB Num 12239)	Negligible	Adverse	Mitigated through design	Negligible	Adverse
Braes of Rannoch Parish Church (HB Num 12243)	Negligible	Adverse	Mitigated through design	Negligible	Adverse
<b>Remaining assets in ZTV</b>					
HB Num's 12240, 12242, and 12244	Negligible	Adverse	Mitigated through design	Negligible	Adverse
<b>Geology, Hydrogeology and Hydrology</b>					
<b>Surface and Ground Waters</b>					
<p>Detrimental impacts to on-site and downstream water quality through degradation of site infrastructure and poor storage of materials.</p> <p>Detrimental effects to on-site and downstream fisheries as a result of changes to water quality.</p> <p>Increases to on-site and downstream flood risk as a result of degradation of infrastructure and/or poor maintenance/monitoring of infrastructure.</p>	Not Significant	Adverse	<p>Appropriate drainage design that incorporates sediment management measures to attenuate and treat runoff from wind farm infrastructure.</p> <p>Appropriate storage and handling of potential pollutants.</p> <p>Adoption of long-term monitoring programme to monitor degradation of infrastructure (including the removal of blockages from watercourse crossings).</p>	Not Significant	Non-significant
<b>Peat and Peat Stability</b>					
<p>Long term degradation of peat as a result of interrupting surface and sub-surface drainage pathways.</p> <p>Disruption of drainage patterns can cause pooling and/or desiccation of peat.</p>	Not Significant	Adverse	<p>Appropriate drainage design that incorporates sediment management measures to attenuate and treat runoff from wind farm infrastructure.</p> <p>Appropriate re-use and management of waste peat in line with principles of best practice guidance and site conditions.</p>	Not Significant	Non-significant

Increase the risk of peatslide as a result of desiccation or wetting of peat. Risk can also increase due to settlement of infrastructure that disrupts hydrological pathways.			Long-term monitoring of peat/soils to determine any issues with stability.		
<b>Noise</b>					
Maximum predicted operational noise levels at all properties are substantially below assumed background noise levels, and therefore below relevant threshold values.	No effect	-	None required	No effect	-
<b>Aviation, Radar and Telecommunications, and Shadow Flicker</b>					
No effects to aviation, radar or telecommunications anticipated.					
<b>Access, Traffic &amp; Transport</b>					
<b>Traffic Impact</b>					
Trips to and from the development site will be limited to maintenance and replacement vehicle, and circa 20 movements per month	No effect			No effect	
<b>Socio-Economics and Tourism</b>					
Local Economy	Major	Beneficial		Major	Beneficial
Walking and cycling routes in Local Area	Minor	Adverse	Community Benefit and potential to instigate tourism related measures to the benefit of the sector	Minor	Adverse
Individual accommodation business in Local Area (estate)	Negligible				
Individual accommodation business in Local Area (non-estate)	Negligible				
Outdoor activities	Negligible				
West Highland Railway	Negligible				
Tourism sector in Local Area as a whole	Minor	Adverse	Community Benefit and potential to instigate tourism related measures to the benefit of the sector	Minor	Adverse

Tourism sector in Perth and Kinross	Negligible				
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Table 17.3 - Cumulative Effects

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
<b>Landscape and Visual</b>					
No significant cumulative effects on landscape character or visual amenity are predicted					
<b>Ecology and Nature Conservation</b>					
<b>Habitats</b>					
Blanket Bog –Loss or degradation	Moderate	Adverse	<p>Mitigated through design.</p> <p>Monitoring and control measures in OHMP and CEMP.</p> <p>An Ecological Clerk of Works (ECoW) will be present on site to oversee enabling works and construction.</p> <p>There is a risk that, over time some of the more sensitive areas of deep peat with water level dependent vegetation could be affected by changes in hydrology brought about by the development.</p> <p>Existing areas of peat erosion with the study area will be stabilised and enhanced through the use of grip locking were appropriate. The pressure on these areas will be further reduced through the reduction in the levels of deer grazing.</p> <p>Peat extracted to allow for construction of access tracks will be translocated into areas with significant peat erosion.</p> <p>Areas of blanket bog south of Loch Mheugaidh highlighted as being sub-optimal due to drying are to be enhanced through a re-wetting program.</p> <p>Further enhancement of blanket bog will be brought about through the felling of Garrocher plantation and the restoration of the modified bog which is present beneath.</p>	Negligible	Adverse



			Restoration measures are detailed in the Outline Habitat Management Plan		
Wet Heath - Loss or degradation	Moderate	Adverse	Mitigated through design. Areas of heathland are to be avoided by the development of the windfarm	Negligible	Adverse
Dry Heath - Loss or degradation	Negligible	Adverse	Areas of acid grassland are to be avoided by the development of the windfarm	Negligible	Adverse
Acid Grassland - Loss or degradation	Negligible	Adverse	Monitoring and control measures in OHMP and CEMP.  Details of measures to be undertaken to protect the watercourses are presented in Chapter 10: Hydology, Geology and Hydrogeology. Chemicals will be stored safely in banded containers at a minimum distance of 100 m from a waterbody, and covering pipes and holes to avoid otter entrapment. A speed limit of 15mph will be enforced for any vehicle on site in order to reduce the risk of collision.	Negligible	Adverse
<b>Species</b>					
Loss of nationally scarce plant species – Interrupted club-moss and Dwarf birch.	Low	Adverse	Mitigated through design. Pre-commencement survey. If plants cannot be avoided, translocation to suitable receptor site within the Study area will be carried out.	Negligible	Adverse
Otter –disturbance, habitat loss, injury or death.	Negligible	Adverse	Mitigated through design.  Monitoring and control measures in OHMP and CEMP.  Chemicals will be stored safely in banded containers at a minimum distance of 100 m from a waterbody, and covering pipes and holes to avoid otter entrapment. A speed limit of 15mph will be enforced for any vehicle on site in order to reduce the risk of collision. An ECoW will be present on site to oversee enabling works and construction.  Any maintenance works will take place during the day so as to minimise disturbance to otter.	Negligible	Adverse
Water Vole - disturbance, habitat loss, injury	Negligible	Adverse	Mitigated through design.	Negligible	Adverse

or death			<p>Monitoring and control measures in OHMP and CEMP.</p> <p>Chemicals will be stored safely in bunded containers at a minimum distance of 100 m from a waterbody, and covering pipes and holes to avoid water vole entrapment.</p> <p>A speed limit of 15mph will be enforced for any vehicle on site in order to reduce the risk of collision.</p> <p>An ECoW will be present on site to oversee enabling works and construction.</p>		
Pine Marten - disturbance, habitat loss, injury or death	Negligible	Adverse	<p>Monitoring and control measures in OHMP and CEMP.</p> <p>Chemicals will be stored safely in bunded containers, covering pipes and holes to avoid pine marten entrapment.</p> <p>A speed limit of 15mph will be enforced for any vehicle on site in order to reduce the risk of collision.</p> <p>An ECoW will be present on site to oversee enabling works and construction.</p> <p>Any maintenance works will take place during the day so as to minimise disturbance to pine marten.</p>	Negligible	Adverse
Bats - disturbance, habitat loss, injury or death	Negligible	Adverse	<p>Mitigated through design.</p> <p>Monitoring and control measures in OHMP and CEMP.</p> <p>An ECoW will be present on site to oversee enabling works and construction.</p>	Negligible	Adverse
Fish - habitat loss, injury or death	Moderate	Adverse	<p>Monitoring and control measures in OHMP and CEMP.</p> <p>The CEMP will include details of silt mitigation measures. These will include silt traps, sumps and cut off drains to direct clean water away from working areas.</p> <p>An ECoW will be present on site to oversee enabling works and construction.</p> <p>The ECoW will be able to halt works should it be found that siltation prevention measures are not working sufficiently to avoid affecting the SAC.</p>	Negligible	Adverse
<b>Ornithology</b>					
<i>Bird Species</i>					

Golden eagle – Displacement from foraging habitat	Negligible	Adverse	Monitoring and control measures in OHMP and CEMP.	Negligible	Adverse
Golden eagle –Displacement from nest site	Moderate	Adverse	Monitoring of nest site and control measures in OHMP and CEMP. Measures will be carried out including fixed barge routes and speed limits to reduce this disturbance to eagles.	Negligible	Adverse
Hen harrier - Displacement from nest site	Negligible	Adverse	Monitoring and control measures in OHMP and CEMP.	Negligible	Adverse
Merlin – Displacement, loss of a nest site	Low	Adverse	Monitoring and control measures in OHMP and CEMP.	Negligible	Adverse
Peregrine	No construction effects identified	-	None required	Negligible	Adverse
Osprey	Negligible	Adverse	None required	Negligible	Adverse
Golden plover - Displacement from nest site	Low	Adverse	Monitoring and control measures in OHMP and CEMP	Negligible	Adverse
Greenshank - Displacement from nest site	Moderate	Adverse	Monitoring and control measures in OHMP and CEMP. Avoidance of nest site by 300m	Negligible	Adverse
Black grouse - Displacement from lek site	Low	Adverse	Monitoring and control measures in OHMP and CEMP.	Negligible	Adverse
Red-throated diver - Displacement from nest site	Negligible	Adverse	Control measures in CEMP.	Negligible	Adverse
Red-throated diver – Displacement from foraging	Low	Adverse	Control measures in CEMP.	Negligible	Adverse
<b>Cultural Heritage</b>					
All assets assessed for operational effects	No effect		None required	No effect	
<b>Traffic Impact</b>					

Effects of abnormal loads on traffic flows	Negligible	Adverse	Escort vehicles and delivery programme timed to cause minimal disruption.	Negligible	Adverse
Effects of abnormal loads on the local network	Negligible	Adverse	Accommodation and reinstatement works. Initial and completion inspection surveys with agreement to return to existing condition.	Negligible	Adverse
Increased HGV traffic on local roads	Negligible	Adverse	The number of HGV trips required during the construction phase has been minimised by proposals to utilise an on-site borrow pit for all roadstone requirements.  Specific travel routes and time periods to and from the development site will be defined for delivery vehicles.	Negligible	Adverse



