

EARBA STORAGE

A GILKES ENERGY COMPANY

Earba Pumped Storage Hydro Scheme EIA Report

Appendix 8.1: Results of Desk Study

February 2024



Quality Information

Prepared by

SLR Consulting

Checked by

Chris Pasteur

Approved by

Gavin McGill

Revision History

Revision

01

Revision Date

February 2024

Details

Issue to ECU

Authorised

Gavin McGill

© 2024 Gilkes Energy Ltd. All Rights Reserved

Earba Pumped Storage Hydro Scheme

Appendix 8.1: Results of Desk Study

Table 8.1.1: Statutory Sites Designated for (Non-Avian) Terrestrial Ecology Features within 10 km

Site Name	Designation	Approximate Distance and Direction from Site Boundary	Reason for Designation
Creag Meagaidh	National Nature Reserve (NNR)	0.29 km north-west	Upland reserve covering 4,000 ha, which shares the same boundary as Creag Meagaidh Site of Special Scientific Interest (SSSI).
Ben Alder and Aonach Beag	SSSI	0.3 km south-east	Upland habitats: Upland assemblage. Vascular plants: Vascular plant assemblage. Non-vascular plants: Bryophyte assemblage. Non-vascular plants: Lichen assemblage. (Birds: Breeding bird assemblage). (Geological: Structural and metamorphic geology: Dalradian)
Ben Alder and Aonach Beag	Special Area of Conservation (SAC)	0.3 km south-east	Alpine and Boreal heaths. Alpine and subalpine calcareous Grasslands. Alpine pioneer formations of the <i>Caricion bicoloris-atrofuscae</i> (priority habitat). Blanket bogs (priority habitat). Calcareous rocky slopes with chasmophytic vegetation. European dry heaths. Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels. Northern Atlantic wet heaths with <i>Erica tetralix</i> . Siliceous alpine and boreal grasslands. Siliceous rocky slopes with chasmophytic vegetation. Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladanii</i>). Sub-Arctic <i>Salix</i> spp. scrub.
Creag Meagaidh	SSSI	0.4 km north-west	Upland habitats: Rocky slopes (including inland cliff, rocky outcrops, chasmophytic vegetation). Upland habitats: Upland assemblage. Woodlands: Upland birch woodland. Vascular plants: Vascular plant assemblage. (Birds: Breeding bird assemblage.)

Earba Pumped Storage Hydro Scheme

Site Name	Designation	Approximate Distance and Direction from Site Boundary	Reason for Designation
Creag Meagaidh	SAC	1.2 km north-west	Alpine and Boreal heaths. Blanket bogs (priority habitat). Calcareous rocky slopes with chasmophytic vegetation. European dry heaths. Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels. Northern Atlantic wet heaths with <i>Erica tetralix</i> . Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i> . Siliceous alpine and boreal grasslands. Siliceous rocky slopes with chasmophytic vegetation. Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladanii</i>). Sub-Arctic <i>Salix</i> spp. scrub.
Drumochter Hills	SAC	7 km south-east	Alpine and Boreal heaths. Blanket bogs (priority habitat). European dry heaths. Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels. Northern Atlantic wet heaths with <i>Erica tetralix</i> . Siliceous alpine and boreal grasslands. Siliceous rocky slopes with chasmophytic vegetation. Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladanii</i>). Species-rich <i>Nardus</i> grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe) (priority habitat). Sub-Arctic <i>Salix</i> spp. scrub.
Drumochter Hills	SSSI	7 km south-east	Upland habitats: Montane assemblage. Vascular plants: Vascular plant assemblage. (Birds: Breeding bird assemblage). (Geological: Fluvial geomorphology of Scotland).
Coire Bhachdaidh	SSSI	8 km south-east	Upland habitats: Upland assemblage. Vascular Plants: Vascular plant assemblage. (Birds: Breeding bird assemblage).

Earba Pumped Storage Hydro Scheme

Site Name	Designation	Approximate Distance and Direction from Site Boundary	Reason for Designation
River Spey	SAC	9 km north-east	Otter (<i>Lutra lutra</i>). Freshwater pearl mussel (<i>Margaritifera margaritifera</i>). Sea lamprey (<i>Petromyzon marinus</i>). Atlantic salmon (<i>Salmo salar</i>).
River Spey	SSSI	9 km north-east	Otter (<i>Lutra lutra</i>). Freshwater pearl mussel (<i>Margaritifera margaritifera</i>). Sea lamprey (<i>Petromyzon marinus</i>). Atlantic salmon (<i>Salmo salar</i>).

Table 9.1.2: Protected and Notable Species Records within 2 km of the Site (Data provided by HBRG)

Common name	Scientific name	Number of Records within 2km of Site	Year of most recent	Protection/ Conservation Status (see Table 9.1.3)
Mammals				
European otter	<i>Lutra lutra</i>	1	2021	BAP-2007, Bern-A2, ECCITES-A, FEP-007_tab2, HabDir-A2*, HabDir-A4, HabReg-Sch2, Scottish_Biodiversity_List, WACA-Sch5_sect9.4b, WACA-Sch5_sect9.5a, WACA-Sch5Sect9.4c
Red deer	<i>Cervus elaphus</i>	1	2002	Bern-A3
Mountain hare	<i>Lepus timidus</i>	1	2000	BAP-2007, Bern-A3, HabDir-A5, HabReg-Sch4, RedList_GB_post2001-NT, Scottish_Biodiversity_List, LBAP
Amphibians				
Common frog	<i>Rana temporaria</i>	1	2012	Bern-A3, HabDir-A5, WACA-Sch5_sect9.5a
Invertebrates				
Small pearl-bordered fritillary	<i>Boloria selene</i>	2	2006	BAP-2007, RedList_GB_post2001-NT, Scottish_Biodiversity_List
Large heath	<i>Coenonympha tullia</i>	4	2006	BAP-2007, RedList_GB_post2001-VU, Scottish_Biodiversity_List, WACA-Sch5_sect9.5a
Bilberry bumblebee	<i>Bombus monticola</i>	2	2000	Scottish_Biodiversity_List
Scottish wood ant	<i>Formica aquilonia</i>	1	2009	RedList_Global_post94-NT

Earba Pumped Storage Hydro Scheme

Common name	Scientific name	Number of Records within 2km of Site	Year of most recent	Protection/ Conservation Status (see Table 9.1.3)
Rannoch brindled beauty	<i>Lycia lapponaria</i>	7	2021	RedList_GB_Pre94-R
White ermine	<i>Spilosoma lubricipeda</i>	2	2010	BAP-2007, Scottish Biodiversity List
Plants				
Interrupted clubmoss	<i>Lycopodium annotinum</i>	1	2006	HabDir-A5, NS-excludes, RedList_ENG_post2001-VU
Parsley fern	<i>Cryptogramma crispa</i>	1	2006	RedList_ENG_post2001-VU
Dwarf birch	<i>Betula nana</i>	2	2006	NS-excludes, RedList_ENG_post2001-CR
Arctic mouse-ear	<i>Cerastium arcticum</i>	1	2006	BAP-2007, NS-excludes, Scottish Biodiversity List
Dwarf cornel	<i>Cornus suecica</i>	1	2006	RedList_ENG_post2001-NT, RedList_GB_post2001-NT
Dwarf willow	<i>Salix herbacea</i>	1	2006	FEP-001

Table 9.1.3: Glossary of Codes for Species Protection/ Conservation Status

Abbreviation	Full Designation	Type	Description
BAP-2007	UK Biodiversity Action Plan priority species	National	The UK List of Priority Species and Habitats contains 1150 species and 65 habitats that have been listed as priorities for conservation action under the UK Biodiversity Action Plan (UK BAP).
Bern-A2	Bern Convention Appendix 2	International	Special protection ('appropriate and necessary legislative and administrative measures') for the animal taxa listed.
Bern-A3	Bern Convention Appendix 3	International	Special protection through 'appropriate and necessary legislative and administrative measures', of the listed wild fauna species.
ECCITES-A	EC CITES Annex A	International	All CITES Appendix I species.
FEP-001	Farm Environment Plan Guidance 001	National	Species is listed in the DEFRA document 'Environmental Stewardship Farm Environment Plan Guidance 001: Hedgerow Woody Species (from Schedule 3 of Hedgerow Regulations 1997)'.
FEP-007_tab2	Farm Environment Plan Guidance 007-Table 2	National	Species is listed in 'Table 2: Farm Environment Plan Species to be recorded in Part 2 of the FEP' of the DEFRA document 'Environmental Stewardship Farm Environment Plan Guidance 007: Plant & animal

Earba Pumped Storage Hydro Scheme

Abbreviation	Full Designation	Type	Description
			species in the Farm Environment Plan (FEP)'. Species which are endangered, the conservation of which the Community has a particular responsibility in view of the proportion of their natural range which falls within the territory of the Community. They require the designation of special areas of conservation.
HabDir-A2*	The Habitats Directive (Annex 2)	International	
HabDir-A4	The Habitats Directive (Annex 4)	International	Animal and plant species of Community interest (i.e. endangered, vulnerable, rare or endemic in the European Community) in need of strict protection. They are protected from killing, disturbance or the destruction of them or their habitat. Note that the contents of this annex have been updated in April 2003 following the Treaty of Accession.
HabDir-A5	Habitats Directive Annex 5	International	Animal and plant species of Community interest whose taking in the wild and exploitation may be subject to management measures.
HabReg-Sch2	The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (The Habitat Regulations) (Schedule 2)	National	Schedule 2- European protected species of animals.
HabReg-Sch4	The Conservation (Natural Habitats, &c.) Regulations 2010 (Schedule 4)	National	Schedule 4- Animals which may not be taken or killed in certain ways.
LBAP	Highland Nature Biodiversity Action Plan 2021-2026	Local	Local priority species and habitats that have been identified within the Highland Biodiversity Action Plan due to their i) National importance ii) Local importance in a national context; iii) Local rarity iv) Local decline or v) Local distinctiveness
NS-excludes	Nationally Scarce. Excludes Red Listed taxa	National	Nationally Scarce - Occurring in 16-100 hectads in Great Britain. Excludes rare species qualifying under the main IUCN criteria.
RedList_ENG_post 2001-CR	IUCN (2001) - Critically endangered	International	A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined by any of the criteria A to E.

Earba Pumped Storage Hydro Scheme

Abbreviation	Full Designation	Type	Description
RedList_Global_post94-NT	IUCN (1994) - Lower risk - near threatened	International	Taxa which do not qualify for Lower Risk (conservation dependent), but which are close to qualifying for Vulnerable. In Britain, this category includes species which occur in 15 or fewer hectads but do not qualify as Critically Endangered, Endangered or Vulnerable
RedList_GB_post2001-NT	IUCN (2001) - Lower risk - near threatened	International	Taxa which do not qualify for Lower Risk (conservation dependent), but which are close to qualifying for Vulnerable. In Britain, this category includes species which occur in 15 or fewer hectads but do not qualify as Critically Endangered, Endangered or Vulnerable.
RedList_GB_post2001-VU	IUCN (2001) - Vulnerable	International	A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium term future.
RedList_GB_Pre94-R	IUCN (pre 1994) - Rare	International	Taxa with small populations that are not at present Endangered or Vulnerable, but are at risk. (In GB, this was interpreted as species which exist in fifteen or fewer 10km squares). Superseded by new IUCN categories in 1994, but still applicable to lists that have not been reviewed since 1994.
Scottish_Biodiversity_List	Scottish Biodiversity List	National	The Scottish Biodiversity List is a list of flora, fauna and habitats considered by the Scottish Ministers to be of principal importance for biodiversity conservation. The development of the list has been a collaborative effort involving a great many stakeholders.
WACA-Sch5_sect9.1 (kill / injuring)	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.1 (killing/injuring))	National	Animals which are protected from intentional killing or injuring.
WACA-Sch5_sect9.1 (taking)	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.1 (taking))	National	Animals which are protected from taking.
WACA-Sch5_sect9.2	Wildlife and Countryside Act 1981 (Schedule 5 Section 9.2)	National	Section 9.2 Animals which are protected from being possessed or controlled (live or dead).
WACA-Sch5_sect9.4.a	Wildlife and Countryside Act 1981 (as amended in	National	Animals which are protected from intentional damage or destruction to

Earba Pumped Storage Hydro Scheme

Abbreviation	Full Designation	Type	Description
	Scotland) (Schedule 5 Section 9.4a)		any structure or place used for shelter or protection.
WACA-Sch5_sect9.4b	Wildlife and Countryside Act 1981 (as amended in Scotland) (Schedule 5 Section 9.4b)	National	Animals which are protected from intentional disturbance while occupying a structure or place used for shelter or protection.
WACA-Sch5Sect9.4c	Wildlife and Countryside Act 1981 (as amended in Scotland) (Schedule 5 Section 9.4c)	National	Animals which are protected from their access to any structure or place which they use for shelter or protection being obstructed.
WACA-Sch5_sect9.5a	Wildlife and Countryside Act 1981 (as amended in Scotland) (Schedule 5 Section 9.5a)	National	Animals which are protected from being sold, offered for sale or being held or transported for sale either live or dead, whole or part.
WACA-Sch8	Wildlife and Countryside Act 1981 (Schedule 8)	National	Plants which are protected from intentional picking, uprooting or destruction (Section 13 1a); selling, offering for sale, possessing or transporting for the purpose of sale (live or dead, part or derivative) (Section 13 2a); advertising (any of these) for buying or selling (Section 13 2b).
WACA-Sch 9	Wildlife and Countryside Act 1981 (Schedule 9)	National	Non-native animals and plants which have established in the wild. Under the Act, it is an offence to release an animal to a location outside of its native range, allow an animal to escape from captivity to a location outside of its native range, and plant, or otherwise cause to grow, a plant in the wild at a location outside of its native range.