Loch Kemp Storage - EIA Report

Appendix 10.1: Terrestrial Ecology Report

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Loch Kemp Storage

Terrestrial Ecology Report

Blairbeg Consulting

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Introduction

Loch Kemp Storage Ltd. ("the Applicant"), is proposing to construct a new pumped storage hydro scheme with an installed capacity of up to 600 Megawatt (MW) (hereafter referred to as "the Proposed Development"). Blairbeg Consulting Ltd were commissioned to carry out terrestrial ecological surveys in summer 2021 on behalf of ASH Design and Assessment Ltd (ASH), the Applicant's appointed environmental consultant, in the vicinity of Loch Kemp, near Whitebridge, Highlands to support the Proposed Development.

The objectives of the survey are as follows:

- To provide base-line information on the location, extent and floristics of the existing vegetation, and presence and status of protected species within the site; and
- To produce an annotated vegetation map using the Phase 1 classification to identify and map the habitats. This is supported by habitat descriptions, detailed vegetation community (National Vegetation Classification) data and target notes.

The site is located near Whitebridge, located largely west of the Whitebridge plantation and extending west to the shore of Loch Ness. The site occupies a low-lying plateau above Loch Ness, at approximately 200-250 m above sea level. Torr Paiteag, which lies within the Whitebridge plantation is a prominent high point at 306 m above sea level. Open ground habitats dominate the landscape around Loch Kemp, with heath, mire, grassland and bracken communities present. As topography descends to Loch Ness in the west, the habitat is dominated by broadleaved woodland. Fragments of broadleaved woodland are also present across the site, particularly around the shores of Loch Kemp, and on steeper slopes near Lochan a'Chinn Mhonaich. The site encompasses Loch Kemp and several smaller lochs (Lochan Choir Uire, Loch Cluanie, Loch Paiteag and Lochan a'Chinn Mhonaich). Whitebridge plantation is dominated by commercially managed coniferous plantation woodland, with some open areas around Torr Paiteag and Loch Paiteag.

All open ground areas are managed for sporting purposes, with evidence of gamebird management by way of gamebird release and feeding pens and muirburn/vegetation cutting across areas of heath, mire and bracken. A network of access tracks runs through the site and within Whitebridge plantation.

Methodology

Background survey

Baseline data on the nature conservation interest of the site and its surroundings, including information on protected species and habitats records were sought from the following sources:

- Joint Nature Conservation Committee (JNCC) website (http://www.jncc.gov.uk/);
- NatureScot Site Link website (http://sitelink.nature.scot);
- NatureScot Standing waters database (https://gateway.snh.gov.uk/pls/apex_cagdb2/f?p=111:1000);
- Habitat Map of Scotland (HabMoS). HabMoS is a national repository for habitat and land use data and comprises a composite map, containing data from many different sources. Currently available data includes the following datasets of relevance to this project:

- Native Woodland Survey Scotland (NWSS) 2006-2013;
- National Forest Inventory (NFI) 2015; and
- Ordnance Survey (OS) delineation of Inland Surface Waters 2017.

- Large-scale 1:10,000 Ordnance Survey (OS) maps in conjunction with colour 1:25,000 OS map (to determine the presence of ponds and other features of nature conservation interest).

Further information relevant to evaluation of the nature conservation features that could be affected by the development and the assessment of its effects upon them was obtained through searches of internet sources (e.g. UKBAPs, LBAPs) and the relevant published literature (i.e. relevant guidance documents and scientific papers).

Protected Species Survey

Protected species surveys were undertaken on the 13th June, 14th June, 23rd August, 24th August, 25th August, 26th August, 27th August and 28th August 2021. Surveys in June 2021 comprised walkover surveys within the Site to identify potentially suitable habitat for protected species. Surveys in August 2021 comprised walkover surveys within the Site, divided into set areas to be surveyed each day and following the methodologies detailed below. Surveys were undertaken within the site boundary for the Proposed Development. An evaluation of the mammal species present on the site is provided in the results sections below. Surveys were undertaken by [redacted] MCIEEM, [redacted] MCIEEM and assisted by [redacted]

Otter (Lutra lutra)

Otter field signs were searched for, as described in Bang & Dahlstrøm (2001)[1] and Sargent & Morris (2003)[2], and include:

- Holts – these are underground features where otters live. They can be tunnels within bank sides, underneath root plates or boulder piles, and even man-made structures such as disused drains. Holts are used by otters to rest up during the day, and are the usual site of natal or breeding sites. Otters may use holts permanently or temporarily;
- Couches – these are above ground resting-up sites. They may be partially sheltered, or fully exposed. Couches may be regularly used, especially in reed beds and on in-stream islands. They have been known to be used as natal and breeding sites. Couches can be very difficult to identify, and may consist of an area of flattened grass or earth. Where rocks or rock armour are used as couches, these can be almost impossible to identify without observing the otter in situ;
- Prints – otters have characteristic footprints that can be found in soft ground and muddy areas;
- Spraints – otter faeces are often used to mark territories, usually deposited on in-stream boulders. They can be present within or outside the entrances of holts and couches. Spraints have a characteristic smell and often contain fish remains;

[1] Bang, P. & Dahlstrom, P. (2001). *Animal Tracks and Signs.* Oxford University Press, Oxford.
[2] Sargent, G & Morris, P. (2003). *How to Find and Identify Mammals*. 2nd Edition. The Mammal Society

- Feeding signs – the remains of prey items may be found at preferred feeding stations. Remains of fish, crabs or skinned amphibians can indicate the presence of otter;
- Paths – these are terrestrial routes that otters take when moving between resting-up sites and watercourses, or during high flow conditions when they will travel along bank sides in preference to swimming; and
- Slides and play areas – slides are typically worn areas on steep slopes where otters slide on their bellies, often found between holts/couches and watercourses. Play areas are used by juvenile otters in play, and are often evident by trampled vegetation and the presence of slides. These are often positioned in sheltered areas adjacent to the natal holt.

Any of the above signs are diagnostic evidence of the presence of otter; however, it is often not possible to identify couches with confidence unless other field signs are also present. Spraint is the most reliable identifiable evidence of the presence of this species. Any evidence of otter presence was recorded onto 1:10,000 scale survey maps in the field. The location of all signs was also recorded via the use of a handheld GPS.

Scottish Wildcat (Felis sylvestris)

Field signs of wildcat are described in Davis & Gray (2010)[3] and SNH (2011)[4]. Field evidence searched for includes:

- Dens – can be found in hollow trees, rock crevices, rabbit burrows, disused fox dens and badger setts and under fallen debris;
- Prints – are distinctive cat prints, with no claw marks visible and a small palm pad with two indentations at rear;
- Scat – is usually cylindrical with a tapered end and contains feathers, fur and bone;
- Scratching posts on trees and fence posts; and
- Sightings.

Any of the above can be taken as diagnostic evidence of the presence of cats in the area. However, further surveys are required in order to identify if the cats present are wildcat or are a hybridisation with domestic cats i.e. feral cats.

If signs were found then further field survey methods would be required in order to establish if a den is present and if it is active. This can take several days/weeks depending upon the potential numbers of cats and habitat suitability. In areas where there are signs of wildcats camera traps can be used to try and verify presence and also to prove if a wildcat/hybrid or feral cat is present based on pelage characters. This would be the third step in the survey process if required (following the initial site assessment).

The key criteria for identifying Scottish wildcat are complex due to their ability to interbreed with domestic and feral cats. Scottish wildcat features and recognition are summarised in research by Kitchener *et al*., 2005 with clear methods for identification based on pelage (coat characteristics) from the study of dead cats. However, with live cats in the field this is more problematic due to the

[3] Davis A.R., Gray D. (2010). The distribution of Scottish wildcats (*Felis silvestris*) in Scotland (2006-2008). Scottish Natural Heritage Commissioned Report No. 360

[4] Scottish Natural Heritage. (2011). *Scottish Wild Cat* Naturally Scottish Series. SNH Battleby. http://www.snh.org.uk/pdfs/publications/naturallyscottish/wildcats.pdf

difficulty in observing cats. In addition, it is believed from field research that true wildcats are now very rare in the field with very low populations in many areas with much larger feral populations now present. Detailed field research is still required to accurately determine wildcat densities in many areas.

Any evidence of Scottish wildcat presence was recorded onto 1:10,000 scale survey maps in the field. The location of all signs was also recorded via the use of a handheld GPS.

Badger (Meles meles)

Badger field signs that were searched for, as described in Neal & Cheeseman (1996)[5], Bang & Dahlstrøm (2001) and SNH (2003)[6], included:

- Setts – are places of shelter often located in woodland, at woodland edges, in hedgerows or amongst dense patches of gorse and scrub close to fields;
- Prints – tracks lead from setts to latrines and foraging areas and prints are identifiable from broad palm-pad and five toe pads with claw marks in a row;
- Latrines (and dung pits used as territorial markers) – are where badgers deposit faeces in small excavated pits, and are often located at territory edges or close to a main sett;
- Hairs – are often left in barbed wire or fencing as badgers pass through or underneath and are distinctive for their oval shape when rolled between finger and thumb; and
- Feeding signs (snuffle holes) - where badgers have dug up roots, grubs, or wasps nests and can be found throughout their territory.

Any of the above signs can be taken as diagnostic evidence of the presence of badger. Any evidence of badger presence was recorded onto 1:10,000 scale survey maps in the field. The location of all signs was also recorded via the use of a handheld GPS and photographs taken to visually catalogue the record.

Water vole (Arvicola amphibus)

The methodology prescribed in Dean *et al.* (2016)[7] was followed in order to search for field signs of water vole. Suitable habitat was identified during the June 2021 site visits and resurveyed during the August 2021 site visits. The field signs searched for included:

- Faeces – recognisable by their size, shape, and content. If not too dried-out these are also distinguishable from rat droppings by their smell;
- Latrines – faeces, often deposited at discrete locations known as latrines;
- Feeding stations – food items are often brought to feeding stations along pathways and hauled onto platforms. Recognisable as neat piles of chewed vegetation up to 10cm long;
- Burrows – appear as a series of holes along the water's edge distinguishable from rat burrows by size and position;
- Lawns – may appear as grazed areas around land holes;

[5] Neal, E. & Cheeseman, C. (1996). *Badgers.* Poyser Natural History, London
[6] NatureScot. (2003) Best practice adger survey guidance note. https://www.nature.scot/doc/guidance-licensing-badgers-badger-survey-best-practice
[7] Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016). *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series).* Eds Fiona Mathews and Paul Chanin. The Mammal Society, London.

- Nests – where the water table is high. Above ground woven nests may be found;
- Footprints – tracks may occur at the water's edge and lead into bank side vegetation. May be distinguishable from rat footprints by size; and
- Runways in vegetation – low tunnels pushed through vegetation near the water's edge, less obvious than rat runs.

Any of the above signs can be taken as diagnostic evidence of the presence of water vole. Any evidence of water vole presence was recorded onto 1:10,000 scale survey maps in the field. The location of all signs was also recorded via the use of a handheld GPS.

Red squirrel (Sciurus vulgaris)

Through areas of woodland any sightings of red squirrel, signs of feeding and evidence of active dreys were recorded to determine the presence of the species within the Site:

- Dreys – are comprised of an outer shell of twigs and branches, with an inner layer of mosses, leaves, grass and conifer needles. Dreys are usually built close to the main stem of a tree;
- Feeding signs – can be stripped and nibbled conifer cones, split hazelnuts, nibbled fungus and berries.

Any evidence of red squirrel presence was recorded onto 1:10,000 scale survey maps in the field. The location of all signs was also recorded via the use of a handheld GPS.

Pine marten (Martes martes)

The field signs searched for included:

- Scats – These are typically dark in colour and 4-12cm long x 0.8-1.8cm in diameter. They often have a coiled twisted appearance, typical of many mustelid scats. Scats will often contain food remains including fur, feathers, bone, plant content and seeds. Scats vary tremendously in size, shape and colour, and it's difficult even for experts to identify some pine marten scats. Scats are placed in latrines at well-used dens (e.g. on lids of den boxes), as well as at sites elsewhere in an individual's home range, where they probably fulfil a social communication role. Given the difficulty in confirming pine marten scat, any suspected scat will be sent for genetic analysis to conclusively distinguish it from other species.
- Footprints – The five-toed but slightly cat-like forefoot imprints measure approximately 40 x 45mm for females and 55 x 65mm for males; fur on the underside of feet in winter may blur prints and make them look larger, especially in soft snow, but pine martens have less fur on their feet pads than stone martens (present in continental Europe). Indistinct trails of bounding martens (stride length 60-100cm) may resemble those of hares, with prints in groups of two or three where one or both hind feet have registered over prints of forefeet.
- Den sites – Dens are usually not distinctive unless revealed by a visible concentration of scats. Elevated den sites are preferred to keep martens safe from predators and provide insulation and shelter from the elements, and so hollow trees, owl boxes and the roofs of dwelling houses are often used, as well as purpose-built pine marten den boxes. Where such

elevated dens are absent, they may den on the ground in rabbit burrows, rocky outcrops or under tree roof plates.

Any evidence of pine marten presence was recorded onto 1:10,000 scale survey maps in the field. The location of all signs was also recorded via the use of a handheld GPS.

Bats

The methodology prescribed involved a preliminary habitat assessment – walking over the site and inspecting areas of potential interest as foraging and roosting habitat for bat species, as detailed in Collins (2016)[8]. The survey took into account the following:

- the extent and quality of foraging and commuting habitat within the site;
- the proximity of the Proposed Development to areas designated for bats (SSSI and SAC); and
- the presence of buildings, bridges, trees or other features that may support or are known to support bat roosts.

Any potential roost features were recorded onto 1:10,000 scale survey maps in the field. The location of all signs and potential roost features was also recorded via the use of a handheld GPS.

Survey Limitations

The following survey limitations were encountered during the course of field survey work for protected species:

- Areas of dense, impenetrable conifer plantation were not possible to access in all cases to search for signs and shelters of protected species. Effort in these circumstances was focused around the perimeter of such areas; and
- Potential roost features for bats were identified in a number of trees, but due to the height or unstable nature of the trees, more detailed assessment was not possible.

Habitat Survey

The vegetation was described and mapped following the methods described in National Vegetation Classification user's handbook (Rodwell, 2006)[9] and the Joint Nature Conservation Committee (JNCC) Handbook for Phase 1 Habitat Surveys (JNCC, 2010)[10]. Plant species were identified and habitat types assigned and mapped in the field. Mapping polygons were delineated based on the composition of habitats. Full data for each polygon is provided in Appendix 2: Habitat data. Polygons were laterally assigned a Phase 1 Habitat Classification, according to the relationships described in Phase One Habitat Classification (JNCC 2010). For the purposes of creating a visual representation of habitat types, the dominant Phase One Habitat Classification for each polygon is reflected. Phase 1 habitat maps were digitised using the ArcView 10.6 GIS package, with figures provided in Appendix 1, Figure 1: Habitat Survey Results. Surveys were undertaken by Adam Fraser MCIEEM.

[8] Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.
[9] Rodwell, J.S. (2006) NVC Users' Handbook, JNCC, Peterborough.
[10] JNCC (2010), *Handbook for Phase 1 Habitat Survey – a technique for environmental audit.* Joint Nature Conservation Committee: Peterborough

More widely, target notes were also collected to provide an overview of the habitat types present, features of interest and to place the proposed development in the context of site. All target notes are accompanied by at least one photograph and provided in Appendix 3: Target notes.

Following the field survey, the conservation status of each habitat recorded was identified based on the following:

- Annex I habitats listed on the EC Habitats Directive, as translated into British and Scottish law by The Conservation (Natural Habitats, &c.) Regulations 1994 and subsequent legislation;
- UK Biodiversity Action Plan (UKBAP) priority habitats. Although superseded by the UK Post-2010 Biodiversity Framework in 2012, the UKBAP remains a useful resource for assessing UK conservation status and informs regional conservation priorities; and
- Scottish Biodiversity List (SBL) priority habitats for conservation.
- Plant species of national significance (as defined below) where present, were recorded as target notes: Higher plant species of Lower plants (bryophytes) listed as Critically Endangered (CR), Endangered (EN) or Vulnerable (VU), on the respective red data lists for Great Britain as based on International Union for Conservation of Nature (IUCN) criteria;
    - Nationally rare (NR) – occurring in 15 hectares or fewer in Great Britain; or
    - Nationally scarce (NS) – occurring in 16-100 hectares in Great Britain; and
    - UK Biodiversity Action Plan (UKBAP) priority species.

Any wetland habitats were evaluated in terms of their potential to be groundwater-dependent terrestrial ecosystems (GWDTEs). This was done based on the hydrogeological setting of each habitat community identified, and with reference to SEPA guidance (SEPA, 2014)[11] modified from the United Kingdom Technical Advisory Group (UKTAG) list of National Vegetation Classification (NVC) communities and associated groundwater dependency scores.

Nomenclature for vascular plants follows Stace (2019)[12], bryophytes and liverworts follow Atherton et al (2010)[13] and for lichens Dobson (2011)[14]. A full species list for higher plants identified within the site is provided in Appendix 4: Species List.

Survey limitations

The following survey limitations were encountered during the course of field survey work for habitats:

- Full surveys for aquatic vegetation in waterbodies were not possible due to logistical constraints, instead being focused around waterbody margins: and
- In areas of broadleaved woodland above Loch Ness, dense and tall Bracken *Pteridium aquilinum* cover and precipitous cliffs and ledges prevented access to all areas for full botanical survey.

[11] Scottish Environmental Protection Agency (2014) Land Use Planning System: Guidance Note 31: Guidance on Assessing the Impacts of Windfarm Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems

[12] Stace, C.A. (2019) *New Flora of the British Isles,* 4th edition. C&M Floristics.

[13] Atherton, I., Bosanquet, S. Lawley M. (2010) *Mosses and Liverworts of Britain and Ireland: A Field Guide.* British Bryological Society.

[14] Dobson, F. S. (2011), *Lichens: An Illustrated Guide to the British and Irish Species,* 6th edition. The Richmond Publishing Co. Ltd, Slough.

Baseline Conditions

Protected Species

Evidence of badger, otter, pine marten and red squirrel was recorded during the course of field surveys. Additionally, evidence of or potential for roosting bats was recorded within woodland areas. Locations of shelters and signs for all protected species are documented in Appendix 5: Protected Species Records (confidential) and displayed on Figure 3: Protected Species Survey Results (confidential).

Badger

Badger activity was recorded in woodland areas above Loch Ness, and near the outflow of Loch Kemp. An active main sett (10 entrance holes) was located in woodland north of Allt a Chinn Mhonaich. The sett is located over 50 m from the Proposed Development. Additionally, four outlier setts were located, but none had evidence of recent use and entrance holes were overgrown and no paths were identified. It is recommended that licencing for badger is sought from NatureScot and further survey work is undertaken prior to construction incase of additional digging near the Proposed Development.

Otter

Otter activity was recorded along Loch Ness shore, and along the Allt an t-Sluichd (the outflow from Loch Kemp). Three lie-ups were identified along Loch Ness shore, each located under tree roots and with flattened vegetation, evidence of feeding remains or fresh/old spraint present. Sprainting sites were also recorded along Loch Ness shore. An additional lie-up was identified along the Allt an t-Sluichd.

Pine marten

Pine marten activity was closely associated with coniferous plantation woodland, and scats were recorded along the tracks within the Whitebridge plantation and near the smaller conifer woodland on Torr Cluanie.

Red squirrel

Red squirrel activity in woodlands along Loch Ness shore was high, with frequent feeding signs recorded and associated with hazel trees in the area. Additionally, an individual squirrel was sighted in the vicinity of the existing access track. Further feeding signs were recorded in Whitebridge plantation. No shelters for red squirrel were recorded, however.

Bats

Potential roost features were recorded in broadleaved woodlands above Loch Ness and smaller fragments of woodland around Lochan a'Chinn Mhonaich and Loch Kemp. Additionally potential roost features were identified in standing deadwood Scot's pine *Pinus sylvestris* trees within Whitebridge plantation. Roost features included cavities in trunks or branches, split branches, cracks and loose bark. In one potential roost feature bat droppings were recorded, however many potential roost features (PRFs) were inaccessible, and the status of their usage is unknown. All PRFs are considered to be of moderate suitability, being restricted to small features, limited in number,

within individual trees, and considered unable to support a roost of high conservation status or one that is likely to be suitable for maternity or hibernation roosting purposes.

Potential commuting and foraging habitat is widespread across the Site, and there is considered to be high habitat suitability within the Site as a whole. Broadleaved woodland, woodland edge, and copses and open woodland are frequent within the broadleaved woodland along the slopes above Loch Ness. Similarly open habitat along woodland edges around Whitebridge plantation provides suitable foraging habitat with scattered broadleaved trees, heath and grassland vegetation and small watercourses.

Habitats

Woodlands and scrub

Woodland areas are dominated by a large coniferous woodland at Whitebridge plantation, broadleaved woodland along the slopes above Loch Ness, and fragments of broadleaved woodland scattered throughout the site.

The conifer plantation at Whitebridge is largely dominated by sitka spruce *Picea sitchensis,* hybrid larch *Larix x. marschlinsii,* and Scot's pine *Pinus sylvestris.* There are also extensive areas of felled plantation. Native pinewood plantation areas are located on the slopes of Torr Paiteag, and western slopes of Tom Rathail. In many areas the Scot's pine plantation has been thinned, and the understorey is a grass dominated field layer. Areas of sitka spruce tend to be dense, with little understorey present beyond needle litter. A smaller plantation woodland is present on Torr Cluanie, also dominated by Scot's pine woodland, and fringed with exotic conifer species.

Broadleaved woodland along Loch Ness-side is dominated by downy birch *Betula pubescens,* but there are significant stands of hazel *Corylus avellana*. On lower slopes along Loch Ness shore, ash *Fraxinus excelsior,* alder *Alnus glutinosa* and goat willow *Salix caprea* are more prevalent in the canopy. These areas also have a diverse ground flora, with wood sorrel *Oxalis acetosella,* Dog violet *Viola riviniana,* primrose *Primula vulgaris,* tufted hair-grass *Deschampsia cespitosa agg.,* false brome *Brachypodium sylvaticum,* common nettle *Urtica dioica* and yellow pimpernel *Lysimachia nemorum* frequent in the sward. Commonly there are stands of ferns lady fern *Athyrium filix-femina,* scaly male-fern *Dryopteris affinis agg.* and broad buckler-fern *Dryopteris dilatata.* Occasionally wood avens *Geum urbanum,* globeflower *Trollius europaeus* and marsh hawk's-beard *Crepis paludosa* are present, particularly in damper, sheltered areas below crags and rock overhangs. This woodland type reflects W9 *Fraxinus excelsior-Sorbus aucuparia-Mercurialis perennis* woodland and is largely limited to a band along Loch Ness shore. Moving uphill, whilst the canopy composition is equivalent, the ground flora becomes dominated by bracken *Pteridium aquilinum* with a few small areas of grassy understorey. Bracken forms an almost continuous layer beneath generally widely spaced tree cover, but on occasion stands of common bent *Agrostis capillaris,* creeping soft-grass *Holcus mollis* and sweet vernal-grass *Anthoxanthum odoratum* form beneath canopy cover and at the fringes of bracken stands. Wood sorrel, tormentil *Potentilla erecta,* bramble *Rubus fruticosus agg.,* dog violet *Viola riviniana* and wood sage *Teucrium scorodonia* are scattered throughout. This woodland component reflects W11a *Quercus petraea-Betula pubescens-Oxalis acetosella* woodland *Dryopteris dilatata* sub-community. On steeper ground, and rockier outcrops within the woodland, the ground flora is heathier and heather *Calluna vulgaris,* mosses *Hylocomium splendens, Rhytidiadelphus loreous, Dicranum majus* and *Pleurozium schreberi* are more frequent in the sward beneath bracken and on ledges. The understorey is generally species-poor however, and the canopy almost entirely dominated by downy birch. Occasional holly *Ilex aquifolium,* rowan *Sorbus aucuparia* and hazel are present in gullies and on crags. This woodland type reflects W17 *Quercus petraea-Betula pubescens-*

Dicranum majus woodland and is more typical of more acidic or peaty soil substrates. This community is also the principal type of small fragments of woodland that are scattered throughout the site, most notably on the shores of Loch Kemp and in stands south of Lochan a'Chinn Mhonaich. Areas of broadleaved woodland are considered to be in poor condition, with the canopy dominated by mature trees and negligible cover of young or regenerating saplings. Bracken is almost universally dominant across large areas in the understorey and is considered to limit the potential for tree regeneration. Moderate to high levels of tree browsing are also evident, particularly on hazel trees, likely impacted by deer and goat populations present within the woodlands.

Other woodland stands are typically scattered or individual trees. At the fringes of the Whitebridge plantation there are extensive stands of regenerating coniferous trees sitka spruce and larch, along with more mature birch and alder trees. Very rarely there are stands of eared willow *Salix aurita* in wetter flushed ground, which are derived from W1 *Salix cinerea-Galium palustre* woodland.

Scrub habitats across the site are extensive, and almost always dominated by U20 *Pteridium aquilinum-Galium saxatile* community. This community comprises stands of bracken, and can have grassy, heathy or absent ground flora beneath the fronds of bracken. Across this site, the majority of bracken stands contain a mixture of heath and grassland species including heather, sweet vernal-grass, wood sorrel, dog-violet, tormentil and heath bedstraw *Galium saxatile*. As such no sub-community is assigned to stands of bracken within the site. In stands of bracken along Loch Ness, bramble is occasionally present along with wood sage and grass species. This bracken community reflects W25 *Pteridium aquilinum-Rubus fruticosus* underscrub, and is generally transitional to U20a *Anthoxanthum odoratum* sub-community. Bracken is also present in mosaic with heath and grassland communities. Large area of land around Lochan a'Chinn Mhonaich are managed by cutting/swiping of bracken stands converting them to areas of grassland.

Heaths and mires

Heath and mire communities are widespread across open ground within the site between Whitebridge plantation and woodland areas along Loch Ness. Drier knolls and ridges are dominated by dry dwarf shrub heaths, with depressions, gullies and flats mostly dominated by mire communities.

Dry heath communities are generally managed through a programme of muirburn, and as such much of the sward is species-poor. Dry heaths occupy shallower soils and are frequently broken by outcrops of rock on knolls and ridges. In many areas bracken is scattered through the sward and can be co-dominant. Most dry heath communities are typically comprised of co-dominant heather and bell heather *Erica cinerea* with cross-leaved heath *Erica tetralix,* deergrass *Trichophorum germanicum agg.* tormentil, blaeberry *Vaccinium myrtillus* and purple moor-grass *Molinia caerulea* scattered throughout. Pill sedge *Carex pilulifera*, green ribbed-sedge *Carex binervis* and common bent *Agrostis capillaris* are also occasionally present. These heaths reflect the H10a *Calluna vulgaris-Erica cinerea* dry heath typical sub-communtiy and are the most common heath community present within the site. On some knolls bearberry *Arctostaphylos uva-ursi* can be present, typically within a sward of species are described above. However, the presence of bearberry, along with increased cover of cowberry *Vaccinium vitis-idaea,* reflects the H16 *Calluna vulgaris-Arctostaphylos uva-ursi* heath community.

Wet heaths are also frequent throughout the site, occupying areas of deeper peat soils and where there is damper substrate. Wet heath communities present are all sub-communities of the M15 *Trichophorum germanicum-Erica tetralix* wet heath community. In many areas where there is slow movement of water through the surface, particularly around minor watercourses, wet heath

communities are typified by abundant bog asphodel *Narthecium ossifragum,* carnation sedge *Carex panicea,* star sedge *Carex echinata,* heath rush *Juncus squarrosus* amongst community constants deergrass and cross-leaved heath. Additionally bog myrtle can be abundant to dominant here, forming dense canopy with purple moor-grass and sedge species. This community can be transitional to M25 *Molinia caerulea-Potentilla erecta* mires, but is distinguished from wet modified bog here and classed as flushed wet heath habitat. Other wet heath communities present reflect the M15 typical sub-community, with greater coverage of *Sphagna* and a mosaic of wet heath flora.

Mire communities occupy areas on deep peats, which typically lie in depressions and on flats in areas around Loch Kemp, Lochan a'Chinn Mhonaich and in gullies on higher ground to the north. Areas of intact mire are typically dominated by hare's-tail cottongrass *Eriophorum vaginatum* and bog myrtle with deergrass, cross-leaved heath and heather present in the sward. There is usually a carpet of *Sphagna* and occasionally small bog pools and *Sphagnum* dominated runnels. This mire type reflects the M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire, with M2 *Sphagnum cuspidatum* and M3 *Eriophorum angustifolium* bog pool communities. Areas around the fringes of Whitebridge plantation or near access tracks where localised drying of peat substrates has occurred, and along minor watercourses where there is some movement of water, tend to be dominated by purple moor-grass, hare's-tail cottongrass or rush species. These wet modified bog habitats tend to transition between M17 mire communities and M20 *Eriophorum vaginatum* mire, M25 *Molinia caerulea-Potentilla erecta* mire or M6 *Carex echinata-Sphagnum fallax/denticulatum* mires. In many of these areas there are regenerating exotic conifer trees and scattered downy birch and eared willow. M20 mires tend to be dominated by tussocks of hare's-tail cottongrass and leggy heather, whilst M25 mires are almost entirely dominated by purple moor-grass. True acid flush habitats are rare within the site and typically stands of soft rush *Juncus effusus* or sharp-flowered rush *Juncus acutiflorus* that are typical of M6c *Juncus effusus* sub-community and M6d *Juncus acutiflorus* sub-community mires are transitional components of wider flushed wet heath or wet modified bog habitat mosaics.

Grasslands and montane communities

Grassland habitats are typically derived from management of stands of bracken, and generally acidic in nature. The sward is typically species-poor, with common bent, sweet vernal-grass, mat grass *Nardus stricta,* Yorkshire fog *Holcus lanatus* and heath rush amongst tormentil, heath bedstraw and dog violet. Bracken can be scattered through the sward, often with young fronds patchily distributed across grassland areas. On occasion acid grassland communities can form mosaics with heath habitats. Typically grassland communities present reflect the U4 *Festuca ovina-Agrostis capillaris-Galium saxatile* grassland and the U5 *Nardus stricta-Galium saxatile* grassland.

Neutral grasslands are present on lower ground to the far east of within the site. Fields systems here are dominated by semi-improved neutral grassland. There are signs of some historic improvement – which reflect MG6 *Cynosurus cristatus-Lolium perenne* leys. On occasion stands of Soft rush are present in less heavily grazed areas, and in NVC community terms these grasslands are regarded as MG6/MG10 transitional communities. Patches of MG10 rush-pasture are also scattered through wetter marsh or marshy grassland communities.

Aquatic communities, swamps and tall-herb fens

At the fringes of lochs and lochans, stands of marginal vegetation are present. Typically these stands are comprised S9 *Carex rostrata* and S10 *Equisetum fluviatile* swamps, S4 *Phragmites australis* fen, A7 *Nymphaea alba* community and A8 *Nuphar lutea* community, but also in smaller lochans with

shallow peat banks, patches of common cottongrass *Eriophorum angustifolium,* slender sedge *Carex lasiocarpa* and bogbean *Menyanthes trifoliata* can be present.

Other communities

Scree slopes and areas of bare rock are present in mosaic with dry heath communities on the slopes above Loch Ness, and on knolls scattered throughout the site. These areas are generally free of vegetation bar a few scattered Rowan trees, Polypody *Polypodium vulgare* and some Woolly-fringe moss *Racomitrium lanuginosum.*

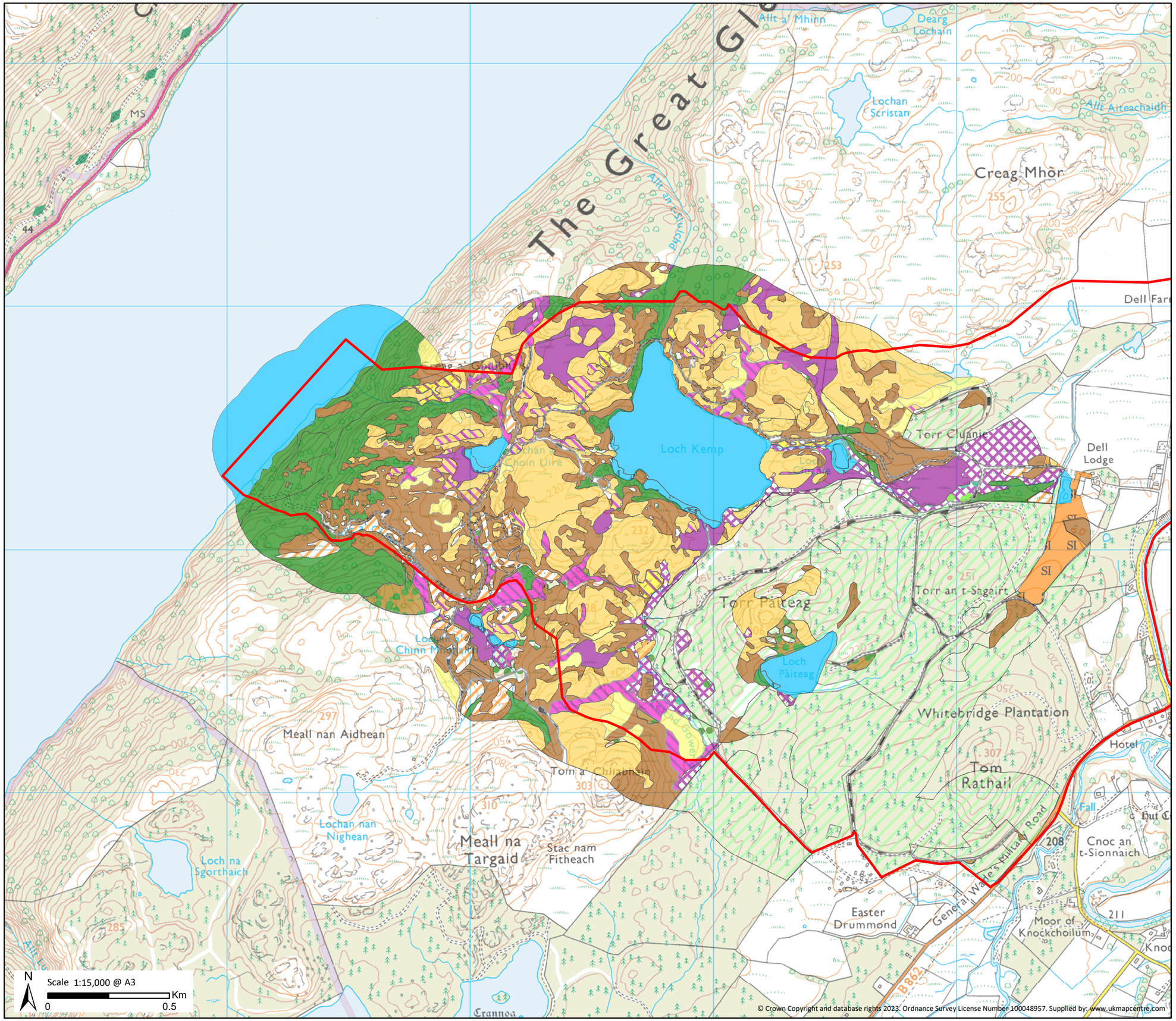
Habitat type	Status*	Groundwater dependency**
Broadleaved woodland (A1)		
W9 *Fraxinus excelsior-Sorbus aucuparia-Mercurialis perennis* woodland	*Tilio-Acerion* forests of slopes, screes and ravines Upland mixed ashwoods	Low
W11a *Quercus petraea-Betula pubescens-Oxalis acetosella* woodland *Dryopteris dilatata* sub-community	Old sessile oak woods with *Ilex* and *Blechnum* in Britain and Ireland; Upland oakwood	Low
W17 *Quercus petraea-Betula pubescens-Dicranum majus woodland*	Old sessile oak woods with *Ilex* and *Blechnum* in Britain and Ireland; Upland oakwood	Low
W17b *Quercus petraea-Betula pubescens-Dicranum majus woodland* typical sub-community	Old sessile oak woods with *Ilex* and *Blechnum* in Britain and Ireland; Upland oakwood	Low
Scrub (A2)		
W1x *Salix cinerea-Galium palustre* woodland, *Salix aurita* upland variant	Wet woodland	Moderate
Scattered trees (A3)		
W17 *Quercus petraea-Betula pubescens-Dicranum majus woodland*,	Old sessile oak woods with *Ilex* and *Blechnum* in Britain and Ireland; Upland oakwood	Low
Acid grassland (B1)		
U4 *Festuca ovina-Agrostis capillaris-Galium saxatile* grassland		Low
U4a *Festuca ovina-Agrostis capillaris-Galium saxatile* grassland, Typical sub-community		Low
U4b *Festuca ovina-Agrostis capillaris-Galium saxatile* grassland, *Holcus lanatus-Trifolium repens* sub-community		Low
U5 *Nardus stricta-Galium saxatile* grassland	*Nardus stricta-Galium saxatile* grassland	Low
Neutral grassland (B2)		
MG6 *Cynosurus cristatus-Lolium perenne* ley		Low
MG10 *Holcus lanatus-Juncus effusus* rush-pasture		Low-Moderate
Tall herb and fern communities (C1 and C3)		
U20 *Pteridium aquilinum-Galium saxatile* community		Low
U20a *Pteridium aquilinum-Galium saxatile* community, *Anthoxanthum odoratum* sub-community		Low
U20b *Pteridium aquilinum-Galium saxatile* community, *Vaccinium myrtillus* sub-community		Low
U20c *Pteridium aquilinum-Galium saxatile* community, Species-poor sub-community		Low
Dry heath (D1)		
H10 *Calluna vulgaris-Erica cinerea* heath	European dry heaths; Upland heathland	Low

Habitat type	Status*	Groundwater dependency**
H10a *Calluna vulgaris-Erica cinerea* heath, Typical sub-community	European dry heaths; Upland heathland	Low
H16 *Calluna vulgaris-Arctostaphylos uva-ursi* heath	European dry heaths; Upland heathland	Low
H16b *Calluna vulgaris-Arctostaphylos uva-ursi* heath *Vaccinium myrtillus-Vaccinium vitis-idaea* sub-community	European dry heaths; Upland heathland	Low
Wet heath (D2)		
M15 *Trichophorum germanicum-Erica tetralix* wet heath	Northern Atlantic wet heaths with *Erica tetralix*; Upland heathland	Moderate
M15a *Trichophorum germanicum-Erica tetralix* wet heath, *Carex panicea* sub-community	Northern Atlantic wet heaths with *Erica tetralix*; Upland heathland	Moderate (sometimes High)
M15b *Trichophorum germanicum-Erica tetralix* wet heath, Typical sub-community	Northern Atlantic wet heaths with *Erica tetralix*; Upland heathland	Moderate
M6 *Carex echinata-Sphagnum fallax/denticulatum* mire	Upland flushes, fens and swamps	High
Blanket bog (E1.6.1)		
M1 *Sphagnum denticulatum* bog pool community	Blanket bog; Blanket bog	Peatland
M2 *Sphagnum cuspidatum/fallax* bog pool community	Blanket bog; Blanket bog	Peatland
M3 *Eriophorum angustifolium* bog pool community	Blanket bog; Blanket bog	Peatland
M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire	Blanket bog; Blanket bog	Peatland
M17a *Trichophorum germanicum-Eriophorum vaginatum* blanket mire *Drosera rotundifolia-Sphagnum* species sub-community	Blanket bog; Blanket bog	Peatland
Wet modified bog (E1.7)		
M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire	Blanket bog; Blanket bog	Peatland
M20b *Eriophorum vaginatum* blanket mire *Calluna vulgaris-Cladonia* sub-community	Blanket bog; Blanket bog	Peatland
M25a *Molinia caerulea-Potentilla erecta* mire, *Erica tetralix* sub-community		Moderate/Peatland
Flushes (E2)		
M6a *Carex echinata-Sphagnum fallax/denticulatum* mire, *Carex echinata* sub-community	Upland flushes, fens and swamps	High
M6c *Carex echinata-Sphagnum fallax/denticulatum* mire, *Juncus effusus* sub-community	Upland flushes, fens and swamps	High
M6d *Carex echinata-Sphagnum fallax/denticulatum* mire, *Juncus acutiflorus* sub-community	Upland flushes, fens and swamps	High
Swamp, marginal and inundation		
S4 *Phragmites australis* fen	Upland flushes, fens and swamps	Occasionally High
S9 *Carex rostrata* swamp	Upland flushes, fens and swamps	Occasionally High

Habitat type	Status*	Groundwater dependency**
S10 *Equisetum fluviatile* swamp	Upland flushes, fens and swamps	Low
A7 *Nymphaea alba* community		Low
A8 *Nuphar lutea* community		Low
Other non-NVC habitats		
A1.2.2 Coniferous woodland – plantation		N/A
A1.4.2 Coniferous woodland – recently-felled plantation		N/A
A3.1 Scattered trees – broadleaved		N/A
A3.2 Scattered trees - coniferous		N/A
A3.3 Scattered trees - mixed		N/A
G1 Standing water		N/A
G2 Running water	Headwaters	N/A
J3.6 Buildings and gardens		N/A
J4 Bare ground (access tracks)		N/A

***Status key**
Red text – Annex I habitat under EC Habitats Directive (as translated into UK legislation)
Black text – Scottish Biodiversity List / UK Biodiversity Action Plan priority habitat
****Groundwater dependency** assessed based on: SEPA (2014) Land Use Planning System SEPA Guidance Note 31 – Guidance on Assessing the Impacts of Windfarm Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems

Appendix 1: Figures



Key

- Site Boundary

Habitat

- Access track
- Acid grassland - unimproved
- Blanket bog
- Bracken
- Bracken/Scattered broadleaved trees
- Broadleaved woodland
- Coniferous woodland - plantation
- Coniferous woodland - recently-felled plantation
- Dry heath
- Dry heath/Acid grassland mosaic
- Dry heath/Scattered bracken
- Marginal vegetation
- Neutral grassland - semi-improved
- Scattered trees - broadleaved
- Scattered trees - coniferous
- Scattered trees - mixed
- Scrub - scattered
- Standing water
- Wet heath
- Wet heath - flushed
- Wet heath/Scattered bracken
- Wet heath/acid grassland mosaic
- Wet modified bog
- Wet modified bog/Scattered mixed trees
- Wet modified bog/Scattered trees

Loch Kemp Storage
EIA Report

Figure 1a
Phase 1 Habitats

Drawn by:	[redacted]
Date:	14/11/2023
Drawing:	[redacted]

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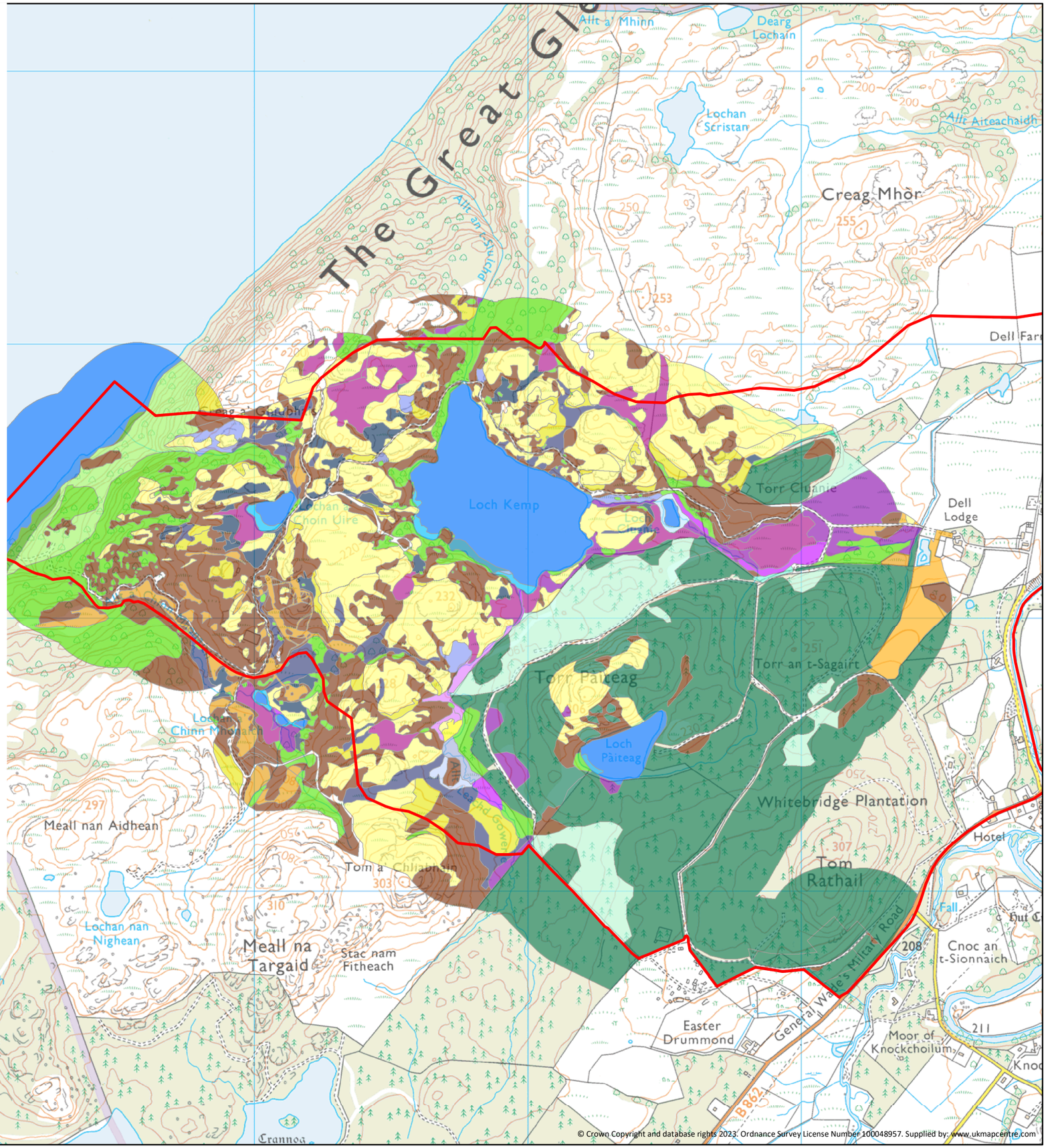
Dominant NVC Category

- A1.2.2 Coniferous plantation woodland
- A1.4.2 Felled coniferous plantation woodland
- A3.2 Scattered broadleaved trees
- A3.3 Scattered mixed trees
- A8 Aquatic community
- G1 Standing water
- H10 Dry heath
- H10/U20 Dry heath/Bracken
- H10/U4 Dry heath/Acid grassland
- M15-17 Wet heath/Blanket bog
- M15-25 Wet heath
- M15/U20 Wet heath/Scattered bracken
- M15/U4 Wet heath/Acid grassland
- M15a Wet heath
- M15a/b Wet heath
- M15b Wet heath
- M17 Blanket bog
- M17-20 Modified bog
- M20 Modified bog
- M25a
- MG6/10 Semi-improved neutral grassland
- S4a Aquatic vegetation
- S9 Marginal vegetation
- S9/10 Marginal vegetation
- S10 Marginal vegetation
- U20 Bracken
- U4 Acid grassland
- W11 Upland oak-birch woodland
- W17 Upland oak-birch woodland
- W1x willow scrub
- W9 Upland mixed broadleaved woodland



Key

- Site Boundary

Loch Kemp Storage
EIA Report

Figure 1b
NVC Survey Results

Drawn by:	[redacted] [redacted] 14/11/2023
Drawing:	120019-D-TE1b-1.0.0

Loch Kemp Storage
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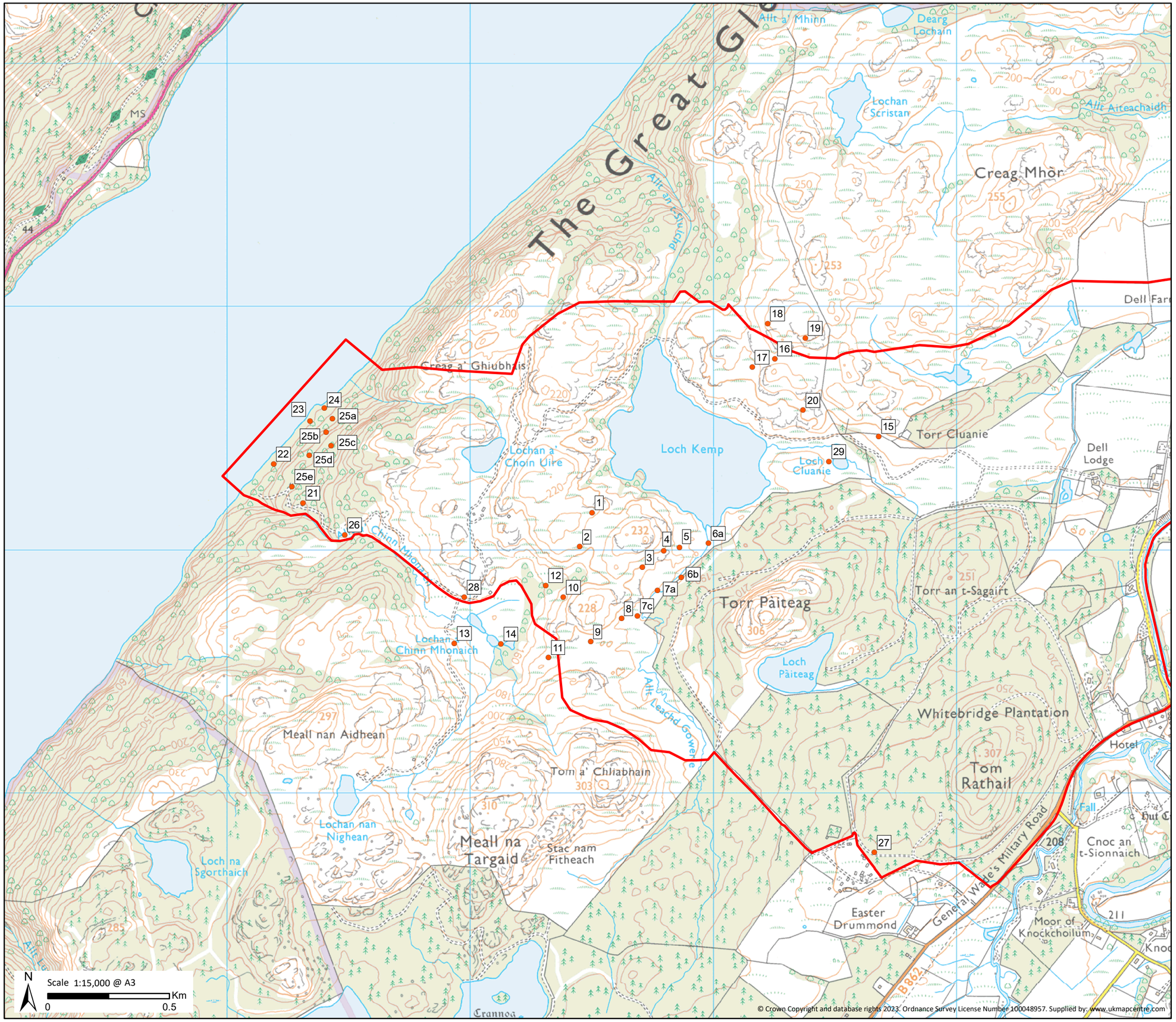

Key

- Site Boundary
- Target Note

Loch Kemp Storage
EIA Report

Figure 2
Target Notes

Drawn by: [redacted] **Date:** 14/11/2023

Drawing: 120019-D-TE2-1.0.0

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Appendix 2: Habitat Data

FID	Habitat	NVC mosaic	GWDTE category
0	Dry heath	H10a 100	No
1	Broadleaved woodland	W17b 100	No
2	Wet heath - flushed	M15a 100	Moderate
3	Scattered trees - broadleaved	W17 100	No
4	Broadleaved woodland	W17b 100	No
5	Scattered trees - broadleaved	W17 100	No
6	Broadleaved woodland	W17b 100	No
7	Scattered trees - broadleaved	W17 100	No
8	Scattered trees - broadleaved	W17 100	No
9	Scattered trees - broadleaved	W17 100	No
10	Scattered trees - broadleaved	W17 100	No
11	Broadleaved woodland	W17b 100	No
12	Scattered trees - broadleaved	W17 100	No
13	Scattered trees - broadleaved	W17 100	No
14	Scattered trees - broadleaved	W17 100	No
15	Scattered trees - broadleaved	W17 100	No
16	Scattered trees - broadleaved	W17 100	No
17	Scattered trees - broadleaved	W17 100	No
18	Scattered trees - broadleaved	W17 100	No
19	Scattered trees - broadleaved	W17 100	No
20	Dry heath	H10a 90: Bare rock 10	No
21	Dry heath	H10a 100	No
22	Dry heath	H10a 100	No
23	Dry heath	H10a 100	No
24	Bracken	U20 80: W25 20	No
25	Bracken	U20 100	No
26	Bracken	U20 100	No
27	Bracken	U20 100	No
28	Scattered trees - broadleaved	W17 100	No
29	Bracken	U20 100	No
30	Dry heath	H10a 90: Bare rock 10	No
31	Wet heath	M15b 80: H10a 20	Moderate
32	Dry heath	H10a 100	No
33	Dry heath	H10a 100	No
34	Dry heath	H10a 90: Bare rock 10	No
35	Wet heath - flushed	M15a/b100	Moderate
36	Dry heath	H10a 100	No
37	Bracken	U20 100	No
38	Dry heath	H10a 100	No
39	Dry heath	H10a 100	No
40	Scattered trees - broadleaved	W17 100	No

FID	Habitat	NVC mosaic	GWDTE category
41	Bracken	U20 100	No
42	Bracken	U20 100	No
43	Dry heath	H10a 90: Bare rock 10	No
44	Scattered trees - broadleaved	W17 100	No
45	Bracken	U20 100	No
46	Dry heath	H10a 65: M15b 15: Bare rock 10: A3.1 5: H16a 5	No
47	Dry heath	H10a 90: Bare rock 10	No
48	Dry heath	H10a 90: Bare rock 10	No
49	Wet heath	M15b 80: Bare rock 10: H10a 10	Moderate
50	Dry heath/Scattered bracken	H10/U20 100	No
51	Bracken	U20 100	No
52	Dry heath	H10a 100	No
53	Scattered trees - broadleaved	W17 100	No
54	Bracken	U20 100	No
55	Dry heath	H10a 100	No
56	Wet heath/Scattered bracken	M15/U20	Moderate
57	Dry heath	H10a 90: Bare rock 10	No
58	Dry heath	H10a 90: Bare rock 10	No
59	Dry heath	H10a 90: Bare rock 10	No
60	Bracken	U20 100	No
61	Wet heath - flushed	M15a/b100	Moderate
62	Wet heath - flushed	M15a/b100	Moderate
63	Wet heath	M15b 80: Bare rock 10: H10a 10	Moderate
64	Dry heath	H10a 100	No
65	Dry heath	H10a 90: Bare rock 10	No
66	Broadleaved woodland	W17b 100	No
67	Bracken	U20 100	No
68	Dry heath	H10a 100	No
69	Wet heath - flushed	M15a/b100	Moderate
70	Bracken	U20 100	No
71	Dry heath	H10a 90: Bare rock 10	No
72	Bracken	U20 100	No
73	Bracken	U20 100	No
74	Dry heath/Scattered bracken	H10/U20 100	No
75	Wet heath - flushed	M15a/b100	Moderate
76	Dry heath	H10a 90: Bare rock 10	No
77	Bracken	U20 100	No
78	Wet heath	M15b 100	Moderate
79	Bracken	U20 75: W25 25	No
80	Broadleaved woodland	W17b 90: U20 10	No
81	Bracken	U20 100	No
82	Bracken	U20 100	No
83	Acid grassland - unimproved	U4 85: U20 15	No

FID	Habitat	NVC mosaic	GWDTE category
84	Scattered trees - broadleaved	W17 100	No
85	Scattered trees - broadleaved	W17 100	No
86	Scattered trees - broadleaved	W17 100	No
87	Scattered trees - broadleaved	W17 100	No
88	Broadleaved woodland	W17b 100	No
89	Scattered trees - broadleaved	W17 100	No
90	Scattered trees - broadleaved	W17 100	No
91	Bracken	U20 100	No
92	Scattered trees - broadleaved	W17 100	No
93	Bracken	U20 100	No
94	Acid grassland - unimproved	U4 96: U20 4	No
95	Bracken	U20 100	No
96	Acid grassland - unimproved	U4 96: U20 4	No
97	Scattered trees - broadleaved	W17 100	No
98	Wet heath/acid grassland mosaic	M15b 75: U4a 25	Moderate
99	Wet heath - flushed	M15a/b 95: M1 5	Moderate
100	Scattered trees - broadleaved	W17 100	No
101	Bracken	U20 100	No
102	Acid grassland - unimproved	U4/5 85: M15b 10: U20 5	No
103	Bracken	U20 100	No
104	Acid grassland - unimproved	U4 95: J3.6 5	No
105	Bracken	U20 100	No
106	Scattered trees - broadleaved	W17 100	No
107	Bracken	U20 100	No
108	Broadleaved woodland	W17b 100	No
109	Bracken	U20 100	No
110	Acid grassland - unimproved	U4 96: U20 4	No
111	Bracken	U20 100	No
112	Acid grassland - unimproved	U4 96: U20 4	No
113	Acid grassland - unimproved	U4 85: U20 15	No
114	Acid grassland - unimproved	U4 85: U20 15	No
115	Acid grassland - unimproved	U4 96: U20 4	No
116	Acid grassland - unimproved	U4 96: U20 4	No
117	Dry heath	H10a 100	No
118	Scattered trees - broadleaved	W17 100	No
119	Dry heath	H10a 90: Bare rock 10	No
120	Wet heath - flushed	M15a/b 95: M1 5	Moderate
121	Dry heath/Scattered bracken	H10/U20 100	No
122	Wet heath	M15b 100	Moderate
123	Dry heath	H10a 90: Bare rock 10	No
124	Bracken	U20 100	No
125	Dry heath/Scattered bracken	H10/U20 100	No
126	Wet heath	M15b 80: Bare rock 10: H10a 10	Moderate

FID	Habitat	NVC mosaic	GWDTE category
127	Wet heath	M15b 80: Bare rock 10: H10a 10	Moderate
128	Bracken	U20 100	No
129	Blanket bog	M17a 75: M15b 20: M2/3 5	Peatland
130	Dry heath	H10a 100	No
131	Acid grassland - unimproved	U4 96: U20 4	No
132	Dry heath/Scattered bracken	H10/U20 100	No
133	Dry heath	H10a 100	No
134	Dry heath/Scattered bracken	H10/U20 100	No
135	Dry heath	H10a 85: Bare rock 10: U4 5	No
136	Acid grassland - unimproved	U4 80: U5 10: U20 10	No
137	Wet heath/acid grassland mosaic	M15b 80: U4/5 20	Moderate
138	Dry heath	H10a 90: Bare rock 10	No
139	Dry heath	H10a 90: Bare rock 10	No
140	Dry heath	H10a 90: Bare rock 10	No
141	Dry heath	H10a 100	No
142	Dry heath	H10a 100	No
143	Dry heath	H10a 85: U4 15	No
144	Acid grassland - unimproved	U4 96: U20 4	No
145	Dry heath/Scattered bracken	H10/U20 100	No
146	Marginal vegetation	S9 80: S10 20:	No
147	Wet heath	M15b 100	Moderate
148	Standing water	G1 100	No
149	Dry heath	H10a 90: Bare rock 10	No
150	Bracken	U20 100	No
151	Broadleaved woodland	W17b 100	No
152	Bracken	U20 100	No
153	Bracken	U20 100	No
154	Wet heath	M15b 100	Moderate
155	Bracken	U20 100	No
156	Dry heath	H10a 80: Bare rock 10: U20 10	No
157	Wet heath/Scattered bracken	M15/U20	Moderate
158	Bracken	U20 100	No
159	Bracken	U20 100	No
160	Wet heath	M15b 80: Bare rock 10: H10a 10	Moderate
161	Dry heath/Scattered bracken	H10/U20 100	No
162	Dry heath	H10a 80: Bare rock 10: U20 10	No
163	Dry heath	H10a 100	No
164	Wet heath	M15b 80: Bare rock 10: H10a 10	Moderate
165	Bracken	U20 100	No
166	Wet heath	M15b 100	Moderate
167	Dry heath	H10a 80: Bare rock 10: U20 10	No
168	Dry heath	H10a 90: Bare rock 10	No
169	Dry heath	H10a 90: Bare rock 10	No

FID	Habitat	NVC mosaic	GWDTE category
170	Blanket bog	M17a 90: M15b 10	Peatland
171	Wet heath - flushed	M15a/b100	Moderate
172	Blanket bog	M17a 80: M15b 15: M2/3 5	Peatland
173	Wet heath - flushed	M15a/b100	Moderate
174	Bracken	U20 100	No
175	Dry heath	H10a 90: Bare rock 10	No
176	Dry heath	H10a 90: Bare rock 10	No
177	Wet heath	M15b 80: Bare rock 10: H10a 10	Moderate
178	Bracken	U20 100	No
179	Dry heath/Scattered bracken	H10/U20 100	No
180	Scattered trees - broadleaved	W17 100	No
181	Acid grassland - unimproved	U4 96: U20 4	No
182	Bracken	U20 100	No
183	Dry heath	H10a 90: Bare rock 10	No
184	Dry heath	H10a 100	No
185	Bracken	U20 100	No
186	Bracken	U20 100	No
187	Bracken	U20 100	No
188	Blanket bog	M17 90: M15 8: A3.3 2	Peatland
189	Wet modified bog	M17 100	Moderate
190	Wet modified bog	M25a 65: M15b 20: M6c/d 10: M1 3: G2 2	Peatland
191	Scattered trees - broadleaved	W17 100	No
192	Wet modified bog	M25a 70: M6c/d 30	Peatland
193	Wet modified bog	M25a 80: M15b 15: G2 5	Peatland
194	Scattered trees - mixed	W17 60: A3.2 40	No
195	Wet modified bog	M15-25 100	Peatland
196	Dry heath	H10a 100	No
197	Wet heath - flushed	M15a/b100	Moderate
198	Blanket bog	M17 100	Peatland
199	Marginal vegetation	S9 50: S4a 30: A4 20	No
200	Standing water	G1 100	No
201	Standing water	G1 100	No
202	Marginal vegetation	S9 80: S4a 20	No
203	Wet modified bog	M20 100	Peatland
204	Standing water	G1 100	No
205	Blanket bog	M17a 80: M2/3 10: A3.1 5: M15b 5	Peatland
206	Scattered trees - broadleaved	W17 100	No
207	Scattered trees - broadleaved	W17 100	No
208	Wet modified bog	M17-20 100	Peatland
209	Scattered trees - broadleaved	W17 100	No
210	Marginal vegetation	S9 50: S4a 30: A4 20	No
211	Scattered trees - broadleaved	W17 100	No
212	Scattered trees - broadleaved	W17 100	No

FID	Habitat	NVC mosaic	GWDTE category
213	Scattered trees - broadleaved	W17 100	No
214	Wet heath - flushed	M15a/b100	Moderate
215	Scattered trees - broadleaved	W17 100	No
216	Scattered trees - broadleaved	W17 100	No
217	Scattered trees - broadleaved	W17 100	No
218	Scattered trees - broadleaved	W17 100	No
219	Scattered trees - broadleaved	W17 100	No
220	Scattered trees - broadleaved	W17 100	No
221	Scattered trees - broadleaved	W17 100	No
222	Wet heath - flushed	M15a/b100	Moderate
223	Scattered trees - broadleaved	W17 100	No
224	Wet heath - flushed	M15a/b100	Moderate
225	Broadleaved woodland	W17b 100	No
226	Broadleaved woodland	W17b 100	No
227	Blanket bog	M17 100	Peatland
228	Wet heath - flushed	M15a/b100	Moderate
229	Blanket bog	M17 100	Peatland
230	Blanket bog	M17 80: M2/3 10: M15b 10	Peatland
231	Blanket bog	M17 100	Peatland
232	Blanket bog	M17 80: A3.3 10: M15b 10	Peatland
233	Standing water	G1 100	No
234	Wet modified bog	M17-20 65: M25a 20: M15b 10: G2 5	Peatland
235	Marginal vegetation	S4a 65: S9 25: A4 10	No
236	Wet modified bog	M17-20 80: M6c 10: M15 10	Peatland
237	Wet modified bog/Scattered mixed trees	M20 75: A3.3 25	Peatland
238	Wet modified bog/Scattered mixed trees	M20 75: A3.3 25	Peatland
239	Wet modified bog	M17-20 100	Peatland
240	Wet modified bog/Scattered mixed trees	M20 75: A3.3 25	Peatland
241	Wet modified bog	M17-20 80: M6c/d 10: M15b 8: G2 2	Peatland
242	Scattered trees - broadleaved	W17 100	No
243	Broadleaved woodland	W17b 100	No
244	Scattered trees - broadleaved	W17 100	No
245	Scattered trees - broadleaved	W17 100	No
246	Scattered trees - broadleaved	W17 100	No
247	Scattered trees - broadleaved	W17 100	No
248	Scattered trees - broadleaved	W17 100	No
249	Scattered trees - broadleaved	W17 100	No
250	Scattered trees - broadleaved	W17 100	No
251	Scattered trees - broadleaved	W17 100	No
252	Scattered trees - broadleaved	W17 100	No
253	Scattered trees - broadleaved	W17 100	No
254	Scattered trees - broadleaved	W17 100	No
255	Wet heath - flushed	M15a/b100	Moderate

FID	Habitat	NVC mosaic	GWDTE category
256	Wet heath - flushed	M15a/b100	Moderate
257	Scattered trees - broadleaved	W17 100	No
258	Scrub - scattered	W1x 100	No
259	Wet heath - flushed	M15a/b100	Moderate
260	Scattered trees - broadleaved	W17 100	No
261	Scattered trees - broadleaved	W17 100	No
262	Blanket bog	M17 95: A3.3 5	Peatland
263	Scattered trees - broadleaved	W17 100	No
264	Broadleaved woodland	W17b 100	No
265	Scattered trees - broadleaved	W17 100	No
266	Scattered trees - broadleaved	W17 100	No
267	Scattered trees - broadleaved	W17 100	No
268	Scattered trees - broadleaved	W17 100	No
269	Scattered trees - broadleaved	W17 100	No
270	Broadleaved woodland	W17b 100	No
271	Scattered trees - broadleaved	W17 100	No
272	Scattered trees - broadleaved	W17 100	No
273	Scattered trees - broadleaved	W17 100	No
274	Scattered trees - broadleaved	W17 100	No
275	Broadleaved woodland	W17b 100	No
276	Scattered trees - broadleaved	W17 100	No
277	Scattered trees - broadleaved	W17 100	No
278	Scattered trees - broadleaved	W17 100	No
279	Scattered trees - broadleaved	W17 100	No
280	Scattered trees - broadleaved	W17 100	No
281	Scattered trees - broadleaved	W17 100	No
282	Scattered trees - broadleaved	W17 100	No
283	Broadleaved woodland	W17b 100	No
284	Scattered trees - broadleaved	W17 100	No
285	Scattered trees - broadleaved	W17 100	No
286	Scattered trees - broadleaved	W17 100	No
287	Scattered trees - broadleaved	W17 100	No
288	Scattered trees - broadleaved	W17 100	No
289	Scattered trees - broadleaved	W17 100	No
290	Scattered trees - broadleaved	W17 100	No
291	Scattered trees - broadleaved	W17 100	No
292	Scattered trees - broadleaved	W17 100	No
293	Scattered trees - broadleaved	W17 100	No
294	Scattered trees - broadleaved	W17 100	No
295	Scattered trees - broadleaved	W17 100	No
296	Scattered trees - broadleaved	W17 100	No
297	Scattered trees - broadleaved	W17 100	No
298	Scattered trees - broadleaved	W17 100	No

FID	Habitat	NVC mosaic	GWDTE category
299	Scattered trees - broadleaved	W17 100	No
300	Blanket bog	M17 100	Peatland
301	Scattered trees - broadleaved	W17 100	No
302	Scattered trees - broadleaved	W17 100	No
303	Scattered trees - broadleaved	W17 100	No
304	Scattered trees - broadleaved	W17 100	No
305	Scattered trees - broadleaved	W17 100	No
306	Broadleaved woodland	W17b 100	No
307	Broadleaved woodland	W17b 100	No
308	Scattered trees - broadleaved	W17 100	No
309	Scattered trees - broadleaved	W17 100	No
310	Scattered trees - broadleaved	W17 100	No
311	Scattered trees - broadleaved	W17 100	No
312	Scattered trees - broadleaved	W17 100	No
313	Blanket bog	M17 80: M15b 10: M6c/d 5: A3.3 5	Peatland
314	Scattered trees - broadleaved	W17 100	No
315	Scattered trees - broadleaved	W17 100	No
316	Scattered trees - broadleaved	W17 100	No
317	Scattered trees - broadleaved	W17 100	No
318	Scattered trees - broadleaved	W17 100	No
319	Scattered trees - broadleaved	W17 100	No
320	Standing water	G1 100	No
321	Bracken	U20 100	No
322	Bracken	U20 100	No
323	Bracken	U20 100	No
324	Bracken	U20 100	No
325	Dry heath	H10a 70: Bare rock 20: U20 10	No
326	Bracken	U20 100	No
327	Dry heath	H10a 70: Bare rock 20: U20 10	No
328	Bracken	U20 100	No
329	Dry heath	H10a 100	No
330	Bracken	U20 100	No
331	Bracken	U20 100	No
332	Dry heath	H10a 90: Bare rock 10	No
333	Wet heath/Scattered bracken	M15/U20	Moderate
334	Bracken	U20 100	No
335	Bracken	U20 100	No
336	Dry heath	H10a 70: Bare rock 20: U20 10	No
337	Dry heath	H10a 70: Bare rock 20: U20 10	No
338	Wet heath	M15b 80: Bare rock 10: H10a 10	Moderate
339	Bracken	U20 100	No
340	Bracken	U20 100	No
341	Bracken	U20 100	No

FID	Habitat	NVC mosaic	GWDTE category
342	Bracken	U20 100	No
343	Bracken	U20 100	No
344	Bracken	U20 100	No
345	Bracken	U20 100	No
346	Bracken	U20 100	No
347	Bracken	U20 100	No
348	Bracken	U20 100	No
349	Bracken	U20 100	No
350	Dry heath	H10a 100	No
351	Bracken	U20 100	No
352	Dry heath	H10a 100	No
353	Bracken	U20 100	No
354	Bracken	U20 100	No
355	Bracken	U20 100	No
356	Bracken	U20 100	No
357	Bracken	U20 100	No
358	Bracken	U20 100	No
359	Bracken	U20 100	No
360	Bracken	U20 100	No
361	Bracken	U20 100	No
362	Scattered trees - broadleaved	W17 100	No
363	Bracken	U20 100	No
364	Bracken	U20 100	No
365	Bracken	U20 100	No
366	Bracken	U20 100	No
367	Bracken	U20 100	No
368	Dry heath	H10a 100	No
369	Dry heath	H10a 85: U20 15	No
370	Bracken	U20 100	No
371	Bracken	U20 100	No
372	Wet heath - flushed	M15a/b100	Moderate
373	Dry heath	H10a 70: Bare rock 20: U20 10	No
374	Dry heath	H10a 70: Bare rock 20: U20 10	No
375	Bracken	U20 100	No
376	Dry heath/Scattered bracken	H10/U20 100	No
377	Bracken	U20 100	No
378	Wet heath	M15b 80: Bare rock 10: H10a 10	Moderate
379	Bracken	U20 100	No
380	Bracken	U20 100	No
381	Bracken	U20 100	No
382	Wet heath	M15b 100	Moderate
383	Acid grassland - unimproved	U4 96: U20 4	No
384	Bracken	U20 100	No

FID	Habitat	NVC mosaic	GWDTE category
385	Wet heath	M15b 100	Moderate
386	Dry heath	H10a 100	No
387	Dry heath	H10a 100	No
388	Dry heath	H10a 100	No
389	Dry heath	H10a 70: Bare rock 20: U20 10	No
390	Dry heath	H10a 100	No
391	Dry heath	H10a 100	No
392	Dry heath	H10a 90: Bare rock 10	No
393	Dry heath	H10a 90: Bare rock 10	No
394	Bracken	U20 100	No
395	Dry heath/Scattered bracken	H10/U20 100	No
396	Dry heath	H10a 100	No
397	Wet heath - flushed	M15a/b100	Moderate
398	Dry heath/Scattered bracken	H10/U20 100	No
399	Dry heath	H10a 60: Bare rock 20: U20 10: H16a 5: M15 5	No
400	Dry heath/Scattered bracken	H10/U20 100	No
401	Bracken	U20 100	No
402	Bracken/Scattered trees	U20/W17	No
403	Bracken	U20 100	No
404	Bracken	U20 100	No
405	Dry heath	H10a 90: Bare rock 10	No
406	Acid grassland - unimproved	U4 85: U20 15	No
407	Bracken	U20 100	No
408	Dry heath	H10a 60: Bare rock 20: U20 10: H16a 5: M15 5	No
409	Bracken	U20 100	No
410	Wet heath	M15b 100	Moderate
411	Wet heath	M15b 80: Bare rock 10: H10a 10	Moderate
412	Bracken	U20 100	No
413	Wet heath	M15b 100	Moderate
414	Wet heath	M15b 100	Moderate
415	Dry heath/Scattered bracken	H10/U20 100	No
416	Dry heath	H10a 90: Bare rock 10	No
417	Bracken	U20 100	No
418	Bracken	U20 100	No
419	Bracken	U20 100	No
420	Bracken	U20 100	No
421	Bracken	U20 80: H10a 15: Bare rock 5	No
422	Dry heath	H10a 60: Bare rock 20: U20 10: H16a 5: M15 5	No
423	Dry heath	H10a 90: Bare rock 10	No
424	Wet heath/Scattered bracken	M15/U20	Moderate
425	Dry heath	H10a 90: Bare rock 10	No
426	Bracken	U20 80: H10a 15: Bare rock 5	No
427	Bracken	U20 100	No

FID	Habitat	NVC mosaic	GWDTE category
428	Dry heath	H10a 70: Bare rock 20: U20 10	No
429	Dry heath/Scattered bracken	H10/U20 100	No
430	Bracken	U20 100	No
431	Bracken	U20 100	No
432	Wet heath	M15b 100	Moderate
433	Dry heath/Scattered bracken	H10/U20 100	No
434	Bracken	U20 100	No
435	Bracken	U20 100	No
436	Bracken	U20 100	No
437	Dry heath	H10a 90: A3.1 5: M15b 5	No
438	Dry heath	H10a 100	No
439	Bracken	U20 100	No
440	Bracken	U20 100	No
441	Dry heath	H10a 100	No
442	Bracken	U20 100	No
443	Bracken	U20 100	No
444	Dry heath	H10a 70: Bare rock 30	No
445	Bracken	U20 100	No
446	Wet heath - flushed	M15a/b100	Moderate
447	Bracken	U20 100	No
448	Bracken	U20 100	No
449	Wet heath - flushed	M15a/b100	Moderate
450	Bracken	U20 100	No
451	Dry heath	H10a 100	No
452	Bracken	U20 100	No
453	Wet heath - flushed	M15a/b100	Moderate
454	Dry heath	H10a 90: Bare rock 10	No
455	Wet heath - flushed	M15a/b100	Moderate
456	Bracken	U20 100	No
457	Dry heath	H10a 70: Bare rock 30	No
458	Bracken	U20 100	No
459	Wet heath - flushed	M15a/b100	Moderate
460	Dry heath	H10a 100	No
461	Scattered trees - broadleaved	W17 100	No
462	Bracken	U20 100	No
463	Dry heath	H10a 90: Bare rock 10	No
464	Dry heath	H10a 100	No
465	Bracken	U20 100	No
466	Bracken	U20 100	No
467	Dry heath	H10a 90: Bare rock 10	No
468	Dry heath/Scattered bracken	H10/U20 100	No
469	Dry heath	H10a 80: Bare rock 20	No
470	Dry heath	H10a 80: Bare rock 20	No

FID	Habitat	NVC mosaic	GWDTE category
471	Bracken	U20 100	No
472	Dry heath	H10a 90: Bare rock 10	No
473	Dry heath	H10a 90: Bare rock 10	No
474	Dry heath/Scattered bracken	H10/U20 100	No
475	Bracken	U20 100	No
476	Bracken	U20 100	No
477	Wet heath - flushed	M15a/b100	Moderate
478	Bracken	U20 100	No
479	Dry heath	H10a 60: Bare rock 20: U20 10: H16a 5: M15 5	No
480	Dry heath/Scattered bracken	H10/U20 100	No
481	Dry heath/Scattered bracken	H10/U20 100	No
482	Dry heath	H10a 80: Bare rock 20	No
483	Dry heath/Scattered bracken	H10/U20 100	No
484	Dry heath	H10a 70: Bare rock 30	No
485	Bracken	U20 100	No
486	Dry heath	H10a 70: Bare rock 20: U20 10	No
487	Dry heath	H10a 90: Bare rock 10	No
488	Dry heath/Scattered bracken	H10/U20 100	No
489	Bracken	U20 100	No
490	Bracken	U20 100	No
491	Dry heath	H10a 100	No
492	Dry heath	H10a 90: Bare rock 10	No
493	Blanket bog	M17 100	Peatland
494	Dry heath/Scattered bracken	H10/U20 100	No
495	Bracken	U20 100	No
496	Dry heath	H10a 70: Bare rock 20: U20 10	No
497	Bracken	U20 100	No
498	Bracken	U20 100	No
499	Dry heath/Scattered bracken	H10/U20 100	No
500	Dry heath	H10a 70: Bare rock 20: U20 10	No
501	Bracken	U20 100	No
502	Bracken	U20 100	No
503	Bracken	U20 100	No
504	Bracken	U20 100	No
505	Bracken	U20 100	No
506	Bracken	U20 100	No
507	Bracken	U20 100	No
508	Bracken	U20 100	No
509	Dry heath/Scattered bracken	H10/U20 100	No
510	Bracken	U20 100	No
511	Bracken	U20 100	No
512	Bracken	U20 100	No
513	Bracken	U20 100	No

FID	Habitat	NVC mosaic	GWDTE category
514	Bracken	U20 100	No
515	Acid grassland - unimproved	U4 85: U20 15	No
516	Bracken	U20 100	No
517	Bracken	U20 100	No
518	Bracken	U20 100	No
519	Bracken	U20 100	No
520	Bracken	U20 100	No
521	Wet heath - flushed	M15a/b100	Moderate
522	Scattered trees - broadleaved	W17 100	No
523	Acid grassland - unimproved	U4 85: U20 15	No
524	Scattered trees - broadleaved	W17 100	No
525	Scattered trees - broadleaved	W17 100	No
526	Bracken	U20 100	No
527	Dry heath/Scattered bracken	H10/U20 100	No
528	Bracken	U20 100	No
529	Bracken	U20 100	No
530	Bracken	U20 100	No
531	Bracken	U20 100	No
532	Dry heath	H10a 60: Bare rock 20: U20 10: A3.1 10	No
533	Wet modified bog	M15-17 100	Peatland
534	Wet modified bog/Scattered mixed trees	M20 75: A3.3 25	Peatland
535	Bracken	U20 100	No
536	Wet heath - flushed	M15a/b100	Moderate
537	Scattered trees - broadleaved	W17 100	No
538	Dry heath/Scattered bracken	H10/U20 100	No
539	Dry heath	H10a 100	No
540	Dry heath/Scattered bracken	H10/U20 100	No
541	Bracken/Scattered trees	U20/W17	No
542	Dry heath/Scattered bracken	H10/U20 100	No
543	Scattered trees - mixed	W17 60: A3.2 40	No
544	Wet heath - flushed	M15a/b100	Moderate
545	Wet heath	M15b 100	Moderate
546	Bracken	U20 100	No
547	Bracken	U20 100	No
548	Bracken	U20 100	No
549	Wet heath/Scattered bracken	M15/U20	Moderate
550	Wet heath - flushed	M15a/b100	Moderate
551	Bracken	U20 100	No
552	Bracken	U20 100	No
553	Dry heath	H10a 90: Bare rock 10	No
554	Dry heath	H10a 90: Bare rock 10	No
555	Wet modified bog	M17-20 100	Peatland
556	Dry heath	H10a 80: A3.3 15: M15-17 5	No

FID	Habitat	NVC mosaic	GWDTE category
557	Dry heath	H10a 80: A3.3 15: M15-17 5	No
558	Wet modified bog	M17-20 100	Peatland
559	Coniferous woodland - plantation	A1.2.2 100	No
560	Coniferous woodland - plantation	A1.2.2 100	No
561	Coniferous woodland - plantation	A1.2.2 100	No
562	Coniferous woodland - recently-felled plantation	A1.4.2 100	No
563	Bracken	U20 100	No
564	Wet modified bog/Scattered mixed trees	M20 75: A3.3 25	Peatland
565	Coniferous woodland - plantation	A1.2.2 100	No
566	Bracken/Scattered trees	U20 80: A3.3 20	No
567	Coniferous woodland - plantation	A1.2.2 100	No
568	Coniferous woodland - plantation	A1.2.2 100	No
569	Bracken	U20 100	No
570	Coniferous woodland - plantation	A1.2.2 100	No
571	Coniferous woodland - plantation	A1.2.2 100	No
572	Coniferous woodland - plantation	A1.2.2 100	No
573	Coniferous woodland - recently-felled plantation	A1.4.2 100	No
574	Coniferous woodland - plantation	A1.2.2 100	No
575	Coniferous woodland - plantation	A1.2.2 90: U20 10	No
576	Coniferous woodland - recently-felled plantation	A1.4.2 100	No
577	Coniferous woodland - plantation	A1.2.2 100	No
578	Coniferous woodland - recently-felled plantation	A1.4.2 100	No
579	Coniferous woodland - plantation	A1.2.2 100	No
580	Bracken/Scattered trees	U20 80: A3.3 20	No
581	Wet modified bog	M17-20 100	Peatland
582	Bracken	U20 100	No
583	Wet modified bog	M17-20 100	Peatland
584	Coniferous woodland - recently-felled plantation	A1.4.2 80: M17-20 20	No
585	Scattered trees - mixed	A3.3 100	No
586	Broadleaved woodland	W17b 100	No
587	Coniferous woodland - plantation	A1.2.2 100	No
588	Wet modified bog/Scattered trees	M17-20 80: A3.3 20	Peatland
589	Wet modified bog/Scattered trees	M17-20 80: A3.3 20	Peatland
590	Coniferous woodland - plantation	A1.2.2 100	No
591	Coniferous woodland - plantation	A1.2.2 100	No
592	Bracken	U20 100	No
593	Bracken	U20 100	No
594	Wet modified bog	M17-20 100	Peatland
595	Coniferous woodland - plantation	A1.2.2 100	No
596	Coniferous woodland - plantation	A1.2.2 100	No
597	Bracken	U20 100	No
598	Coniferous woodland - plantation	A1.2.2 100	No

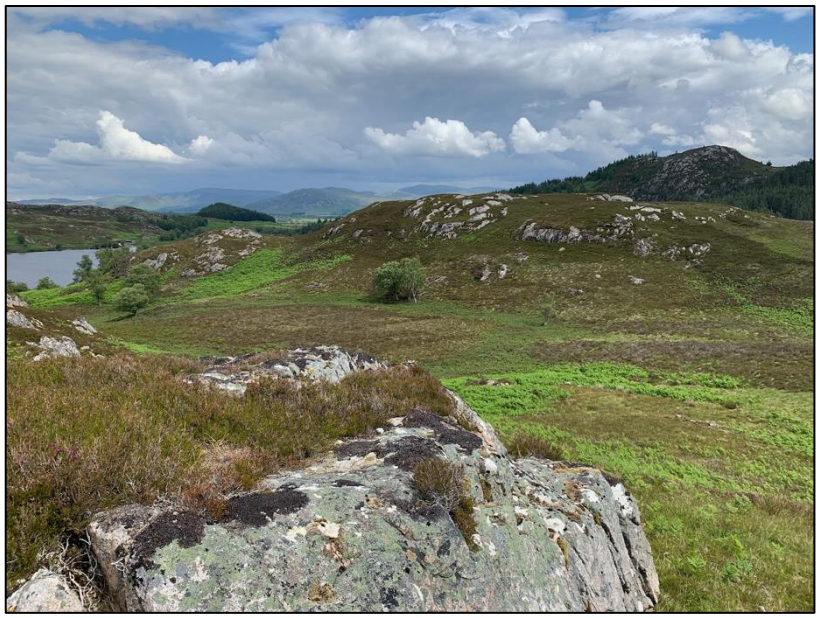
FID	Habitat	NVC mosaic	GWDTE category
599	Coniferous woodland - plantation	A1.2.2 100	No
600	Coniferous woodland - plantation	A1.2.2 100	No
601	Coniferous woodland - plantation	A1.2.2 100	No
602	Bracken/Scattered trees	U20 85: A3.3 20	No
603	Dry heath	H10 70: U20 10: M15 10: Bare rock 8: A3.3 2	No
604	Dry heath	H10 70: U20 10: M15 10: Bare rock 8: A3.3 2	No
605	Standing water	G1 90: S9/10 10	No
606	Bracken	U20 100	No
607	Bracken	U20 80: H10 15: A3.3 5	No
608	Coniferous woodland - plantation	A1.2.2 100	No
609	Dry heath	H10 60: U20 20: M15 10: Bare rock 8: A3.3 2	No
610	Coniferous woodland - plantation	A1.2.2 100	No
611	Coniferous woodland - recently-felled plantation	A1.4.2 100	No
612	Coniferous woodland - plantation	A1.2.2 100	No
613	Coniferous woodland - plantation	A1.2.2 100	No
614	Bracken	U20 100	No
615	Scattered trees - mixed	A3.3 100	No
616	Broadleaved woodland	W17b 80: A3.3 20	No
617	Acid grassland - unimproved	U4 80: U20 10: MG10 10	No
618	Wet modified bog	M17-20 80: M15b 10: A3.3 10	Peatland
619	Acid grassland - unimproved	U4/5 80: U20 20	No
620	Coniferous woodland - recently-felled plantation	A1.4.2 100	No
621	Wet modified bog	M17-20: 80: M25 10: M6c/d 10	Peatland
622	Wet heath	M15b 100	Moderate
623	Dry heath/Scattered bracken	H10a 55: U20 30: Bare rock 10: H16a 5	No
624	Scattered trees - broadleaved	W17b 100	No
625	Bracken	U20 100	No
626	Neutral grassland - semi-improved	MG6/10 100	Low-Moderate
627	Coniferous woodland - plantation	A1.2.2 100	No
628	Bracken	U20 100	No
629	Scattered trees - coniferous	A3.2 100	No
630	Dry heath/Scattered bracken	H10a 55: U20 30: Bare rock 10: H16a 5	No
631	Dry heath/Scattered bracken	H10/U20 100	No
632	Bracken	U20 100	No
633	Broadleaved woodland	W17b 100	No
634	Bracken	U20 100	No
635	Acid grassland - unimproved	U4 96: U20 4	No
636	Bracken	U20 100	No
637	Dry heath	H10a 100	No
638	Bracken	U20 100	No
639	Broadleaved woodland	W17b 100	No
640	Broadleaved woodland	W17b 100	No
641	Broadleaved woodland	W17b 85: W11a 15	No

FID	Habitat	NVC mosaic	GWDTE category
642	Broadleaved woodland	W9 100	No
643	Broadleaved woodland	W11a 60: W9a 20: W17b 15: U20/W25 5	No
644	Broadleaved woodland	W9b 60: W11a 30: W17b 5: U20 5	No
645	Bracken	U20 100	No
646	Dry heath	H10a 90: U20 8: Bare rock 2	No
647	Dry heath/Scattered bracken	H10/U20 100	No
648	Wet heath/acid grassland mosaic	M15/U4 80: M15a 20	Moderate
649	Dry heath	H10a 60: M15b 20: U20 18: A3.1 2	No
650	Bracken	U20 100	No
651	Dry heath/Acid grassland mosaic	H10a 40: U4a 40: U20 15: M15b 5	No
652	Bracken	U20 100	No
653	Bracken	U20 100	No
654	Wet heath	M15b 100	Moderate
655	Standing water	G1 100	No
656	Marginal vegetation	S9/10 100	No
657	Bracken	U20 100	No
658	Bracken	U20 100	No
659	Acid grassland - unimproved	U4 80: U20 20	No
666	Marginal vegetation	S10 65: S9 20: G1 15	No
667	Marginal vegetation	S9 50: S10 30: G1 20	No
668	Bracken	U20 100	No
669	Bracken	U20 100	No
670	Broadleaved woodland	W17b 100	No
671	Bracken	U20 100	No
672	Bracken	U20 100	No
673	Bracken	U20 100	No
674	Access track	n/a	No
675	Marginal vegetation	S9 60: A8 25: G1 15	No
676	Marginal vegetation	A8 100	No
677	Marginal vegetation	S9 60: S10 20: G1 20	No

Appendix 3: Target Notes

Target Note	x	y
1	246503	816154
2	246451	816013
3	246709	815929
4	246797	815996
5	246862	816011
6a	246981	816028
6b	246869	815888
7a	246772	815835
7b	246732	815782
7c	246689	815730
8	246624	815718
9	246497	815623
10	246385	815806
11	246323	815558
12	246312	815854
13	245936	815616
14	246128	815614
15	247681	816467
16	247254	816786
17	247161	816751
18	247224	816930
19	247379	816871
20	247370	816575
21	245314	816193
22	245193	816354
23	245343	816530
24	245401	816585
25a	245434	816540
25b	245409	816485
25c	245429	816429
25d	245339	816390
25e	245268	816261
26	245485	816063
27	247663	814757
28	245976	815806
29	247476	816364

Target Note 1: Mosaic of dry heath, wet heath, blanket mire, bracken *Pteridium aquilinum,* scattered downy birch *Betula pubescens,* and rocky knolls. This composition of habitats is typical of much of the land surrounding Loch Kemp. Continued and historic management by way of burning, heather swiping and quad bike access routes impacts on the vegetation structure and floristic diversity, with many habitats having impoverished flora.



Target Note 2: View south towards Meall na Targaid (left) and Meall nan Aidhean (right) across typical mosaic of habitats. In the middle-distance above Lochan a Chinn Mhonaidh are several areas where repeated cutting of vegetation has maintained a grassland sward.

Target Note 3: View along the Whitebridge plantation edge towards Tom a Chliabhain. Burnt heather on knolls, swiped areas of wet heath or modified bog and extensive bracken cover are typical of the area.

Target Note 4: On shallow soils on knolls and steep slopes, patchy cover of vegetation is more typical, with bell heather *Erica cinerea* of ten co-dominant with heather *Calluna vulgaris.*

Target Note 5: The southern short of Loch Kemp is dominated by flatter areas of ground with blanket mire vegetation. The blanket mire community is typically dominated by bog myrtle *Myrica gale,* purple moor-grass *Molinia caerulea*, hare's-tail cottongrass *Eriphorum vaginatum,* cross-leaved heath *Erica tetralix,* deergrass *Trichophorum germanicum agg.* and heather. Areas of blanket mire are generally rich in *Sphagna*. At the fringes of these areas more leggy heather becomes prevalent, and coverage of hare's-tail cottongrass declines.

Target Note 6a-b: At the plantation edge the inflowing burn to Loch Kemp has banks dominated by purple moor-grass, with patchy heather and scattered bracken. This community is typical of the M25 *Molinia caerulea-Potentilla erecta* mire community.

<u>Target Note 6a</u>

Target Note 6b

Target Note 7a-c: Upstream the banks of the Allt Leachd Gowerie become transitional from the M25 mire community to a rush-dominated mire reflecting M6c *Carex echinata-Shpagnum denticulatum/fallax* mire *Juncus effusus* sub-community and M6d *Carex echinata-Shpagnum denticulatum/fallax* mire *Juncus acutiflorus* sub-community but which retains frequent purple moor-grass cover. Scattered exotic conifer regeneration from the nearby plantation is also evident in patches, along with areas dominated by bog myrtle.

Target Note 7a

Target Note 7b

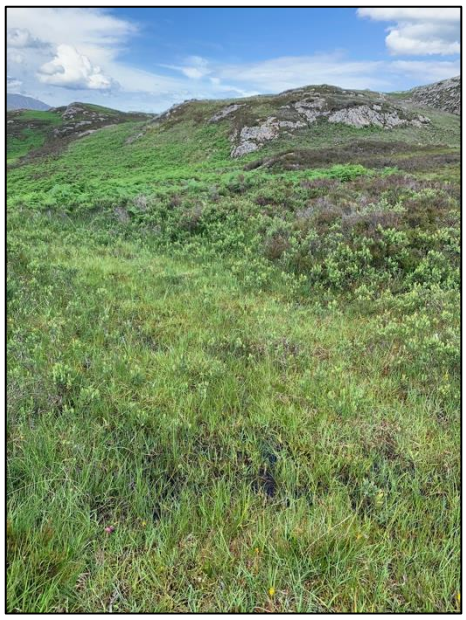
Target Note 7c

Target Note 8: Dry dwarf shrub heath and bracken communities dominated the northern slopes of Tom a Chliabhain.

Target Note 9: Flats and hollows between rockier knolls an slopes are typically occupied by blanket mire communities. Here the vegetation is typical of M17a *Trichophorum germanicum-Erica tetralix* blanket mire *Sphagnum* sub-community, and located on deeper peat substrate. Some management of the area is evident, by way of heather swiping, but the surface remains intact and coverage of *Sphagna* is high.

Target Note 10: View west across the area north of Lochan a Chinn Mhonaidh. Here habitats are intensively managed for sporting land use, with bracken communities cut to promote grassland cover. Extensive stands of bracken dominate most knolls however, with small outcrops of dry heath and rock. The area around the lochans which comprise Lochan a Chinn Mhonaidh is dominated by mire vegetation.

Target Note 11: Areas of flushed wet heath vegetation are present at the downslope fringes of some areas of mire. Here, there is a more sedge-rich sward, with abundant bog asphodel *Narthecium ossifragum,* common sedge *Carex nigra,* star sedge *Carex echinata,* cross-leaved heath and bog myrtle.



Target Note 12: Small burn running downslope to Lochan a Chinn Mhonaidh. Banks are lined with bracken and scattered broadleaved trees. Typically fragments of broadleaved woodland are small and comprise downy birch, eared willow *Salix aurita*, Rowan *Sorbus aucuparia* and occasional regeneration of conifer trees (sitka spruce *Picea sitchensis* and larch sp. *Larix sp.)* windblown from nearby plantation.

Target Note 13: View over Lochan a Chinn Mhonaidh, with managed areas of bracken/grassland, and wetter mire communities around the lochans.

Target Note 14: The fringes of the lochans that comprise Lochan a Chinn Mhonaidh are fringed with bogbean *Menyanthes trifoliata* and slender sedge *Carex lasiocarpa*, with occasional common reed *Phragmites australis* and patches of bottle sedge *Care rostrata*.

Target Note 15: View south towards Torr Paiteag from Torr Cluanie. Bracken dominates open ground in the foreground, with broadleaved woodland around Loch Cluanie. The plantation in the distance is dominated by sitka spruce and larch with some coupes of Scot's pine *Pinus sylvestris.*

Target Note 16a-b: Typical landscape north of Loch Kemp, with knolls of dry heath and rock interspersed with stands of bracken and areas of wet heath and blanket mire in between.

Target Note 25a

Target Note 26b

Target Note 17: Area of M17 *Trichophorum germanicum-Eriophorum vaginatum* blanket mire dominated by hare's-tail cottongrass, bog myrtle, cross-leaved heath and deergrass. Small pools with abundant bog pondweed *Potamogeton polygonifolius* are present.

Target Note 18: View south-west from high point north of Loch Kemp. Typical dry heath/bracken mosaics can be seen on slopes, with wet heaths and blanket mires on flatter ground. The Allt an t-Sluichd burn in the middle distance is banked by broadleaved woodland dominated by downy birch.

Target Note 19: View over large flat dominated by blanket mire vegetation.

Target Note 20: West of Torr Cluanie, and north of the principal access track, a network of rough access tracks for quad bikes are located within wider expanses of bracken, dry heath and acid grassland habitats. Occasionally these areas are dominated by rush-pasture where ground has been disturbed with abundant soft rush *Juncus effusus.*

Target Note 21: Mixed broadleaved woodland at the shores of Loch Ness are dominated by downy birch, with frequent hazel *Corylus avellana,* ash *Fraxinus excelsior,* rowan and goat willow *Salix caprea*. Except on the steepest slopes, the understorey is dominated almost universally by bracken, which can form dense stands with little ground flora under the frond canopy. Where there is ground flora, sweet vernal-grass *Anthoxanthum odoratum,* dog violet *Viola riviniana,* tormentil *Potentilla erecta,* bramble *Rubus fruticosus agg.*, heather *Calluna vulgaris,* blaeberry *Vaccinium myrtillus* and white clover *Trifolium repens* are present at low coverage.

Target Note 22: Woodlands along the shoreline of Loch Ness tend to be slightly richer in diversity, and on areas with steeper rock outcrops and slopes there is lower bracken cover in the understorey. Here species including oak fern *Gymnocarpoium droyopteris,* globeflower *Trollius europaea,* scaly male fern *Dryopteris dilatata,* wood anemone *Anemone nemorosa,* wood sorrel *Oxalis acetosella,* wood sage *Teucrium scorodonia,* chickweed wintergreen *Trientalis europaea* and yellow pimpernel *Lysimachia nemorum* are present at low cover.

Target Note 23: Small shingle beach area with more open bracken dominated habitat fringing the shoreline behind.

Target Note 24a-b: Looking east upslope, the relatively open woodland structure is dominated by mature birch, hazel and goat willow trees, with open areas in between almost entirely dominated by bracken cover. On higher slopes the woodland nature is more acidic, typical of upland oak/birch woodland W17 *Quercua petraea-Betula pubescens-Dicranum majus* woodland. On mid-lower slopes hazel is a more common component of the woodland canopy, and scattered ash trees (particularly along the loch shore) indicate a more neutral-base-rich woodland type, possibly influenced by soil substrate and/or water movement.

Target Note 24a

Target Note 24b

Target Note 25a-e: Typical views within the woodland, with open canopy and bracken dominated understorey. Younger, or regenerating, trees are rare to absent.

Target Note 25a

Target Note 25b

Target Note 25C

Target Note 25d

Target Note 25e

Target Note 26: View south towards Meall nan Aidhean, with more acidic W17 birchwood dominating the higher slopes above Loch Ness.

Target Note 27: Coupe of Scot's pine woodland within Whitebridge plantation. The area has been thinned in the past, and woodland structure is open with a grassy understorey.

Target Note 28: Above the Allt a Chinn Mohonaich there is an area of bracken and grassland managed for sporting purposes. Here bracken is cut to keep open grassland south of the track towards the burn.

Target Note 29: Loch Cluanie, fringed by common reed and mire habitats. Scattered regenerating conifers and mixed broadleaved woodland fringe the north and eastern areas beyond the loch.

Appendix 4: Species List (higher plants)

taxon	common name
Acer pseudoplatanus	Sycamore
Achillea millefolium	Yarrow
Agrostis canina s.s.	Velvet Bent
Agrostis capillaris	Common Bent
Agrostis stolonifera	Creeping Bent
Agrostis vinealis	Brown Bent
Aira praecox	Early Hair-grass
Ajuga reptans	Bugle
Alnus glutinosa	Alder
Anemone nemorosa	Wood Anemone
Angelica sylvestris	Wild Angelica
Antennaria dioica	Mountain Everlasting
Anthoxanthum odoratum	Sweet Vernal-grass
Arabidopsis thaliana	Thale Cress
Arctostaphylos uva-ursi	Bearberry
Asplenium adiantum-nigrum s.s.	Black Spleenwort
Asplenium trichomanes	Maidenhair Spleenwort
Athyrium filix-femina	Lady-fern
Avenella flexuosa	Wavy hair-grass
Avenula pubescens	Downy Oat-grass
Bellis perennis	Daisy
Betula pendula	Silver Birch
Betula pubescens	Downy Birch
Blechnum spicant	Hard-fern
Brachypodium sylvaticum	False-brome
Callitriche stagnalis s.l.	Callitriche
Calluna vulgaris	Heather
Caltha palustris	Marsh-marigold
Campanula rotundifolia	Harebell
Cardamine flexuosa	Wavy Bitter-cress
Cardamine pratensis	Cuckooflower
Carex binervis	Green-ribbed Sedge
Carex canescens	White Sedge
Carex demissa	Common Yellow-sedge
Carex dioica	Dioecious Sedge
Carex echinata	Star Sedge
Carex lasiocarpa	Slender Sedge
Carex lepidocarpa	Long-stalked Yellow-sedge
Carex nigra	Common Sedge
Carex pallescens	Pale Sedge
Carex panicea	Carnation Sedge
Carex pauciflora	Few-flowered Sedge
Carex pilulifera	Pill Sedge
Carex pulicaris	Flea Sedge
Carex remota	Remote Sedge
Carex rostrata	Bottle Sedge
Centaurea nigra s.s.	Knapweed
Cerastium fontanum	Common Mouse-ear

taxon	common name
Circaea alpina x lutetiana = C. x intermedia	#N/A
Cirsium palustre	Marsh Thistle
Cirsium vulgare	Spear Thistle
Comarum palustre	Marsh Cinquefoil
Conopodium majus	Pignut
Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Crepis paludosa	Marsh Hawk's-beard
Cupressus x leylandii	#N/A
Cynosurus cristatus	Crested Dog's-tail
Cystopteris fragilis	Brittle Bladder-fern
Cytisus scoparius	Broom
Dactylis glomerata	Cock's-foot
Dactylorhiza maculata	Heath Spotted-orchid
Deschampsia cespitosa subsp. cespitosa	Tufted Hair-grass
Digitalis purpurea	Foxglove
Drosera rotundifolia	Round-leaved Sundew
Dryopteris affinis agg.	Scaly Male-fern
Dryopteris dilatata	Broad Buckler-fern
Eleocharis quinqueflora	Few-flowered Spike-rush
Epilobium brunnescens	New Zealand Willowherb
Epilobium palustre	Marsh Willowherb
Equisetum fluviatile	Water Horsetail
Erica cinerea	Bell Heather
Erica tetralix	Cross-leaved Heath
Eriophorum angustifolium	Common Cottongrass
Eriophorum vaginatum	Hare's-tail Cottongrass
Euphrasia agg.	#N/A
Festuca ovina agg.	Sheep's-fescue
Festuca rubra	Red Fescue
Festuca vivipara	Viviparous Sheep's-fescue
Ficaria verna subsp. fertilis	Lesser Celandine
Filipendula ulmaria	Meadowsweet
Fraxinus excelsior	Ash
Galium aparine	Cleavers
Galium palustre	Marsh-bedstraw
Galium saxatile	Heath Bedstraw
Genista anglica	Petty whin
Geranium robertianum	Herb-Robert
Glyceria fluitans s.s.	Floating sweet-grass
Gnaphalium uliginosum	Marsh Cudweed
Gymnadenia conopsea s.l.	Fragrant Orchid
Hedera helix s.l.	Ivy
Hieracium agg.	Hawkweed
Holcus lanatus	Yorkshire-fog
Holcus mollis	Creeping Soft-grass
Hyacinthoides non-scripta	Bluebell
Hymenophyllum wilsonii	Wilson's Filmy-fern
Hypericum pulchrum	Slender St John's-wort
Hypochaeris radicata	Cat's-ear

taxon	common name
Ilex aquifolium	Holly
Isoetes lacustris	Quillwort
Jacobaea vulgaris	Ragwort
Juncus acutiflorus	Sharp-flowered Rush
Juncus articulatus	Jointed Rush
Juncus bulbosus	Bulbous Rush
Juncus conglomeratus	Compact Rush
Juncus effusus	Soft-rush
Juncus squarrosus	Heath Rush
Juniperus communis	Juniper
Lathyrus linifolius	Bitter-vetch
Linum catharticum	Fairy Flax
Littorella uniflora	Shoreweed
Lobelia dortmanna	Water Lobelia
Lolium perenne	Perennial Rye-grass
Lotus corniculatus	Common Bird's-foot-trefoil
Luzula campestris	Field Wood-rush
Luzula multiflora	Heath Wood-rush
Luzula multiflora subsp. congesta	Heath Wood-rush
Luzula multiflora subsp. multiflora	Heath Wood-rush
Luzula pilosa	Hairy Wood-rush
Lysimachia nemorum	Yellow Pimpernel
Matricaria discoidea	Pineappleweed
Melampyrum pratense	Common Cow-wheat
Melica nutans	Mountain Melick
Menyanthes trifoliata	Bogbean
Molinia caerulea	Purple Moor-grass
Montia fontana	Blinks
Myosotis laxa	Tufted Forget-me-not
Myosotis secunda	Creeping Forget-me-not
Myrica gale	Bog-myrtle
Myriophyllum alterniflorum	Alternate Water-milfoil
Nardus stricta	Mat-grass
Narthecium ossifragum	Bog Asphodel
Nymphaea alba	White Water-lily
Oreopteris limbosperma	Lemon-scented Fern
Oxalis acetosella	Wood-sorrel
Pedicularis sylvatica	Lousewort
Phalaris arundinacea	Reed Canary-grass
Phegopteris connectilis	Beech Fern
Phragmites australis	Common Reed
Picea sitchensis	Sitka Spruce
Pinguicula vulgaris	Common Butterwort
Pinus contorta	Lodgepole Pine
Pinus sylvestris	Scots Pine
Plantago lanceolata	Ribwort Plantain
Plantago major	Greater Plantain
Poa annua	Annual Meadow-grass
Poa humilis	Spreading Meadow-grass
Poa trivialis	Rough Meadow-grass

taxon	common name
Polygala serpyllifolia	Heath Milkwort
Polypodium vulgare s.l.	Polypody
Polystichum aculeatum	Hard Shield-fern
Populus tremula	Aspen
Potamogeton natans	Broad-leaved Pondweed
Potamogeton polygonifolius	Bog Pondweed
Potentilla erecta	Tormentil
Potentilla sterilis	Barren Strawberry
Primula vulgaris	Primrose
Prunella vulgaris	Selfheal
Prunus padus	Bird Cherry
Pteridium aquilinum	Bracken
Quercus robur	Pedunculate Oak
Ranunculus acris	Meadow Buttercup
Ranunculus flammula	Lesser Spearwort
Ranunculus repens	Creeping Buttercup
Rumex acetosa	Common Sorrel
Sagina procumbens	Procumbent Pearlwort
Salix aurita s.s.	Eared willow
Salix aurita x cinerea = S. x multinervis	#N/A
Salix caprea	Goat Willow
Sanicula europaea	Sanicle
Scorzoneroides autumnalis	Autumn Hawkbit
Selaginella selaginoides	Lesser Clubmoss
Senecio sylvaticus	Heath Groundsel
Solidago virgaurea	Goldenrod
Sorbus aucuparia	Rowan
Sparganium angustifolium	Floating Bur-reed
Stachys sylvatica	Hedge Woundwort
Stellaria alsine	Bog Stitchwort
Stellaria holostea	Greater Stitchwort
Succisa pratensis	Devil's-bit Scabious
Taraxacum agg.	Dandelion
Teucrium scorodonia	Wood Sage
Trichophorum germanicum agg.	Deergrass
Trifolium repens	White Clover
Triglochin palustris	Marsh Arrowgrass
Tsuga heterophylla	Western Hemlock-spruce
Ulex europaeus	Gorse
Urtica dioica	Common Nettle
Utricularia australis	Bladderwort
Vaccinium myrtillus	Bilberry
Vaccinium vitis-idaea	Cowberry
Valeriana officinalis	Common Valerian
Veronica arvensis	Wall Speedwell
Veronica chamaedrys	Germander Speedwell
Veronica officinalis	Heath Speedwell
Veronica serpyllifolia subsp. serpyllifolia	Thyme-leaved Speedwell
Viola palustris	Marsh Violet
Viola riviniana	Common Dog-violet