







Appendix A UKHab Metadata Table

Longcroft Wind Farm

Technical Appendix 8.2: UKHab and NVC Survey Report

Renewable Energy Systems (RES)

SLR Project No.: 405.064.862.00001

26 October 2023

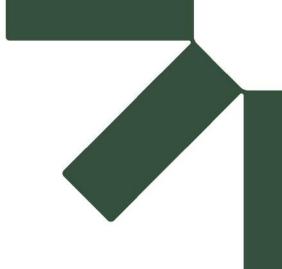


26 October 2023 SLR Project No.: 405.064.862.00001

UKHab Metadata Applied to this Study

ltem	Data		
Scope and purpose of survey	Baseline habitat survey to inform wind farm design and EIA		
Area surveyed	Area surveyed shown on Drawing 1-1.		
UKHab edition used	Edition 1 (2020) and UK Habitat Classification - Professional Edition		
Minimum level of mapping unit (MMU)	2500m², smaller areas of interest have been target noted, locations shown in Figure 8.2.1.		
Level of UKHab hierarchy used	Up to Level 5 where possible.		
List of secondary codes used	10 – Scattered scrub 12 – Scattered bracken 13 – Scattered dwarf shrubs 14 – Scattered rushes 15 – Rushes dominant 17 – Ruderal/ ephemeral 19 – Ponds 36 – Plantation 48 – Non-native 53 - Felled 56 – Young trees - planted 58 - Grazed 63 – Burnt 76 – Recent management 112 – Ruined building 127 – Peat 129 – Flush 189 – Scattered grass		
Additional attributes recorded	NVC survey carried out.		
Map projection and units	OSGB84		
Year of survey	2023		
Organisation and individual undertaking survey	Hannah Rowding, Beth Hanlon, Callum Taylor – Senior Ecologist, SLR Consulting Ltd		
References for existing data sets that have been used	None		





Appendix B Target Notes

Longcroft Wind Farm

Technical Appendix 8.2: UKHab and NVC Survey Report

Renewable Energy Systems (RES)

SLR Project No.: 405.064.862.00001

26 October 2023



Target Note	Grid Reference	Description
1	NT 55024 58003	Degraded bog dominated by hares tail cotton grass with occasional to frequent ling heather and grazed bilberry. Patches of H9 in which ling heather is dominant is dispersed throughout. M19-M20/H9 (70:30).
2	NT 56533 58454	Previously burned areas now regenerating with dense purple moor grass, with abundant young sprigs of bilberry poking through. Ground flora dominated by glittering wood moss and little shaggy moss. Occasional tufts of hares tail cotton grass and ling heather throughout. More recent patches of burning also present in area.
3	NT 56625 58313	Stand of vegetation dominated by purple moor grass with bilberry as co-dominant species. Patches of H9e interspersed throughout.
4	NT 55776 58770	Stag's horn clubmoss noted among heather on south facing bank of watercourse.
5	NT 55547 58796	Area of managed burns of various ages, with vegetation reestablishing to form a mixture of H9c and transitional M19-M20 blanket mire.
6	NT 56207 57896	Burning has resulted in a mosaic of very degraded M19b, M20 and M25 mire habitat. Some areas were formed of abundant hares tail cotton grass, grazed bilberry, frequent cross-leaved heath and occasional sprigs of dry ling heather (degraded M19b), while others were dominated primarily by hares tail cotton grass (M20) or purple moor grass (M25).
7	NT 55278 57527	Previously burned area regenerating with dense common cotton grass <i>E.angustiolium</i> , crowberry, and cowberry with the frequent turfs of hares tail cotton grass. Measures about 20x40m.
8	NT 55023 56367	Previously burned area beginning to revegetate with ling heather and bell heather, with wavy hair grass and occasional sprigs of bilberry. Indicates that natural vegetation may lean towards H10.
9	NT 56087 56229	Rush pasture dominated by soft rush with abundant common sorrel, frequent common bent, creeping buttercup and way bittercress, and occasional marsh thistle, with a mossy ground cover dominated by <i>Rhytidiadelphus</i> species. Classified as species poor M23b.
10	NT 56274 56107	Large expanses of previously burned land now beginning to revegetate with a variety of heathland species, including abundant ling heather, frequent deer grass <i>Trichophorum germanicum</i> and heath rush, and occasional crossed-leaved heath and hares tail cotton grass. Haircap moss <i>Polytrichum</i> species were also noted to be colonising patches of dry, burned ground between vegetation. This area represents poor quality heath habitat and does not currently fit into an NVC category. Stands of ling heather dominated H9c interspersed between the recently burned areas.
11	NT 55611 57222	Stand of M23b rush pasture turning into M6c downgradient along watercourse.
12	NT 55584 57173	Stand of Je – characterised by a dominance of soft rush with field layer comprising mat grass, field wood rush, creeping buttercup and Yorkshire fog.



Target Note	Grid Reference	Description
13	NT 53630 57580	Heavily sheep grazed acid grassland. Frequent creeping bent, Yorkshire fog, yarrow, germander speedwell, field wood rush, sweet vernal grass, white clover, scattered thistle species, and abundant <i>Rhytidiadelphus</i> species. Wetter areas adjacent to running water formed of heavily grazed rush species, with frequent meadowsweet <i>Fillipendula ulmaria</i> and lesser celandine <i>Ficaria verna</i> and common sorrel. Mapped as g1b6 (14) and U4a/M23.
14	NT 53277 57130	This area has been mapped as U4a/Je due to mosaic of acid grassland and rush habitat. Area of dense sharp-flowered rush with frequent tufted hairgrass and an underlayer of common sorrel, common bent, wood rush species, wood anemone <i>Anenome nemorosa</i> , occasional marsh willowherb, purple moor grass, and glittering wood moss.
15	NT 53116 56693	Very dry, heavily grazed H12a/M19b habitat. M19b dominated by ling heather with heavily grazed bilberry and tussocks of hares tail cotton grass throughout. Frequent heath rush and patches of red bog moss, glittering wood moss and red-stemmed feather moss, and scattered purple moor grass also noted.
16	NT 53910 56447	Area regenerating with dense hares tail cotton grass and ling heather following burning. Some areas have more ling heather than hares tail cottongrass and vice versa. All other flora very limited. Mapped as M20-M19-H9 due to variation within the habitat parcel.
17	NT 55143 55525	Previously burned - now regenerating with variety of heavily grazed species that does not fit a specific NVC code, including deer grass <i>Trichophorum germanicum</i> , bilberry, soft rush, heath rush, ling heather, mat grass, and a ground cover of glittering wood moss and big shaggy moss <i>Rhytidiadelphus triquetrus</i> . Mapped as upland heathland (h1b) in Figure 8.2.1.
18	NT 53719 54605	Slope formed of CG10a grassland with species comprising frequent white clover, sweet vernal grass, tormentil, field wood rush, common dog violet, wild thyme, common rock rose, mouse ear hawkweed, and occasional bilberry, bitter vetch and ribwort plantain.
19	NT 53758 54510	Several individual common juniper trees on steep slope surrounding watercourse, in grazed H12a habitat. A single mature Scots pine is also present in this area.
20	NT 52094 55500	Area of acid grassland with several patches of greater wood rush Luzula sylvestris.
21	NT 53618 54411	Juniper dotted along slope on east bank of watercourse.
22	NT 53582 54297	Scattered gorse along edge of watercourse – area to small to map as habitat parcel.
23	NT 56727 57992	M20 habitat dominated by hares tail cotton grass with occasional dry cross-leaved heath and ling heather. Ground layer formed of red-stemmed feather moss and glittering wood moss.



Target Note	Grid Reference	Description
24	NT 55959 59084	Previously burned heath, in poor condition. Dead springs of ling heather with regenerating deer grass, heath rush, purple moor grass, ling heather and occasional tufts of hares tail cotton grass.
25	NT 56001 57890	Degraded bog more closely resembling M25 <i>Molinea caerulea</i> – <i>Potentilla erecta</i> mire due to reduced hares tail cotton grass and increased purple moor grass scattered throughout. Abundant bilberry present among purple moor grass.
26	NT 56098 57953	Dominance of ling heather and lack of ground flora (comprised mainly of heath plait moss <i>Hypnum jutlandicum</i>) indicates that this community is attributed to H9. Occasional glittering wood moss and purple moor grass scattered throughout. Pockets of more purple moor grass dominated areas with abundant bilberry also noted in between H9 Habitat parcel mapped as H9c/M25/M20.
27	NT 56727 57469	Banks of watercourse formed of U5a with soft rush immediately adjacent to stream. NVC communities H12a interspersed with H18a present slightly further upslope.
28	NT 56197 56612	This area is formed of patches of recently managed and historic burns with black dead ling heater and bare ground in most recently managed areas, adjacent to regenerating bilberry dominated H18a and young H12a, adjacent to H9c. Mapped as UKHab h1b5 with secondary codes 63 and 76 and NVC H9c/H12a/H18a/RB (40:25:25:10).
29	NT 55955 57225	Area of good quality M19b habitat, surrounded by M20. Ling heather and hares tail cotton grass co-dominant with a spongey ground layer of red bog moss, red-stemmed feather moss and heath plait moss.
30	NT 55721 57772	Area of intact M19b in which ling heather and hares tail cotton grass are co-dominant. Patchwork of M19 and M20 with some H9c reflecting burning regime. Condition assessment based on intact M19 here.
31	NT 55453 56594	This area does not currently conform to particular NVC community - previously burned, regenerating with areas of dense bilberry (tending towards H18) and frequent to abundant purple moor grass (tending more towards M25). Mapped as UKHab h1b5 with secondary codes 58, 63 and 76, and NVC codes RB/H18/M25.
32	NT 55624 56412	Area of acid grassland with dense patches of rushes surrounding a ruined building.
33	NT 55532 55686	This large area is formed predominately of H9c with patches of burned vegetation that are either dead or beginning to revegetate. Pioneer species include mat grass, heath rush, ling heather and bilberry, of which is heavily grazed.
34	NT 55481 56898	M23 rush pasture dominated by soft rush with opposite- leaved golden saxifrage <i>Chrysosplenium oppositifolium</i> , occasional meadowsweet, lesser celandine <i>Ficaria verna</i> , creeping buttercup and nettle.
35	NT5350057049	Acid grassland dominated by bent grass species with abundant glittering wood moss, heath bedstraw and frequent yarrow, with



Target Note	Grid Reference	Description
		occasional Yorkshire fog, common nettle, thistle species, field wood rush and wild strawberry. Patches of species poor H12 throughout, in which ling heather and glittering wood moss are dominant. Mapped as NVC communities U4a/H12a and UKHab codes g1b6 14.
36	NT 54925 54677	Habitat formed of M6c/d with M20 at edges. Patches in which either sharp flowered rush or soft rush dominate over a carpet of flat-topped bog moss, common haircap moss, marsh violet, with frequent Yorkshire fog.
37	NT 54651 53931	Small pond in rush habitat, measuring approximately 3x4m.
38	NT 54646 53846	Man-made pond, measuring approximately 30x25m.
39	NT 54157 55121	M23a/b rush pasture (areas in which sharp flowered rush and soft rush dominate). Ground layer formed of frequent Yorkshire fog, marsh marigold, creeping buttercup, lesser spearwort <i>Ranunculus flammula</i> , occasional cuckoo flower, wavy bittercress, tufted hair grass, marsh willowherb and marsh bedstraw.
40	NT 52359 55449	Recently burned, not yet re-established.
41	NT 52313 55862	H12a (in various stages of regrowth).
42	NT 52836 55714	Regenerating H10 following burning.
43	NT 52363 52887	Natural pond alongside Cleekhimin Burn.





Appendix C NVC Quadrat Data

Longcroft Wind Farm

Technical Appendix 8.2: UKHab and NVC Survey Report

Renewable Energy Systems (RES)

SLR Project No.: 405.064.862.00001

26 October 2023



Quadrat Number	Grid Reference	NVC	UKHab	Species	Cover (%)	DOMIN
1	NT 55729 58046	M20	f1a6	Hares tail cotton grass	70	8
				Ling heather	15	5
				Bilberry	10	4
				Glittering wood moss	10	4
				Little shaggy moss	5	4
				Crowberry	10	4
				Red-stemmed feather moss	35	7
				Cypress-leaved plait moss	15	5
2	-	M19	f1a5	Hares tail cotton grass	35	7
				Ling heather	65	8
				Cladonia lichen sp.	10	4
				Hypnum moss sp.	30	6
				Red-stemmed feather moss	30	6
				Moss sp.	15	5
				Waved silk-moss Plagiothecium undulatum	2	3
3	NT 55286 56615	H18	h1b5	Bilberry	80	9
				Heath plait moss	30	6
				Glittering wood moss	20	5
				Waved silk-moss	3	3
				Mat grass	5	4
				Red-stemmed feather moss	35	7
4	NT 54874 56431	u4	g1b6	Heath bedstraw	30	6
				Bracken	5	4
				Common bent	10	4
				Germander speedwell	1	3
				Yorkshire fog	15	5
				Rytidiadelphus sp.	15	5
				Moss sp.	5	4
				Glittering wood moss	40	7
				Field wood rush	5	4
				Common sorrel	2	3
				Yarrow	5	4



Quadrat Number	Grid Reference	NVC	UKHab	Species	Cover (%)	DOMIN
5	NT 57320 54563	u4	g1b6	Common nettle (grazed)	15	5
			16	Common mouse-ear	10	4
				White clover	35	7
				Germander speedwell	2	3
				Thistle species	4	3
				Creeping buttercup	3	3
				Yarrow	5	4
				Heavily grazed grass	40	7
				Rhytidiadelphus sp.	5	4
				Field wood rush	1	3
				Crested dogs tail Cynosaurus cristatus	5	4
				Ribwort plantain	2	3
6	NT 52529 55170	u6	g1b6 14	Heath rush	45	7
				Mat grass	25	5
				Glittering wood moss	60	8
				Common haircap moss	15	5
				Common bent	5	4
				Bilberry (grazed)	3	3
				Red-stemmed feather moss	20	5



