

Ecological Survey Report			
<i>Note: This report outlines an ecological survey of the bog. This report should not be taken as a management plan for the site as other land-uses may still be considered. Information within this report may inform the development of other land-uses and identify areas with particular biodiversity value. The report outlines potential options for biodiversity management after industrial peat production has ceased, (if this is the proposed main land-use for the site).</i>			
Bog Name:	<u>Lough Bannow</u>	Area (ha):	746ha
Works Name:	Mount Dillon	County:	Longford
Recorder(s):	DF	Survey Date(s):	27 th and 29 th July 2010
Photos:	Photos taken – see L:\AI_Data\Boora\Ecology Team\Photos\Lough Bannow		
<p>Review status: checked by CF ☺ discussed with TE <input type="checkbox"/> discussed with Works manager <input type="checkbox"/></p> <p>Remaining work:</p> <p>Dr. Judith Keleman (waiting for reply)</p> <p>JP Reilly is a source of local knowledge on Lough Bawn and can be contacted through Patsy Cox.</p>			
<p>Peat production programme and outlook</p> <p>Due to the presence of many gravel ridges and areas of exposed fossil timber, peat production on this site is not estimated to go beyond the next five years (Patsy Cox).</p>			
<p>Key biodiversity features of interest</p> <ul style="list-style-type: none"> • Calcareous springs (or depressions collecting tufa-rich groundwater). If classified as tufa-forming (active springs), they qualify as the Annex I habitat 'Petrifying springs with tufa formation (Cratoneurion) (7220)'. • Lough Bawn, which contains Transition Mire and Quaking bog (PF3) qualifies as an Annex I EU Habitats Directive habitat-'transition mires and quaking bogs' -7140. (Lough Bawn pNHA 001819) • Extensive bog woodland (WN7) (Annex I habitat) along the western sedges of the transition mire (Lough Bawn site) qualifies as the Annex I habitat 'bog woodland' -91D0. • Pioneer dry calcareous grassland developing on cutaway. • Oak Ash Hazel woodland (WN2) in the north east section of the site. • Areas of Birch (oBir and cBir) dominated scrub that are becoming species rich and likely to develop into Oak-Ash-Hazel woodland (WN2) in the future. • Otters are using the drains in the north eastern section of the site and are likely to be using the drainage system that is connected to the Royal Canal. • Pine Marten are present on the site at numerous locations 			
<p>Habitats present (in order of dominance)</p> <p>The most common habitats present at this site include:</p> <ul style="list-style-type: none"> • Poor fen (pEang, pJeff, pTyp, pPhrag and pTrig) • Bare peat (BP) • gCal 			

- DisCf
- pCamp
- Rip - riparian areas (streams/drains with fringing habitats)
- Birch dominated scrub (eBir, oBir and cBir) (Codes refer BnM classification of pioneer habitats of production bog. See Appendix I).
- Exposed gravel
- dHeath
- Temporary open water (tow)
- Conifer plantation (WD4)
- Transition mire and quaking bog (PF3)
- Bog woodland (WN7)
- Raised bog (PB1) remnant
- Oak-Ash-Hazel woodland (WN2)
- Possible calcareous springs (FP1)
- Dense Bracken (HD1)
- Wet grassland (GS4) along the fringes of the bog

Description of site

Lough Bannow Bog is situated approximately seven kilometres south east of Lanesborough, Co. Longford along the R392 Road. The R398 public road runs along the north of the site while a secondary road (Keenagh road) runs along part of the southern section of the road. The Royal Canal passes within 500 metres of eastern edge of the site. Two large mineral islands are located within the site boundaries but are not under BnM ownership. This site has been harvested for milled peat since the late 1960's and the general outlook for peat production on this bog will be for another five years on selected areas of the site, areas of the site that will not be further harvested for peat are located throughout the site and are at various stages of development in terms of revegetation. A large section of failed conifer plantation is located on the site. Overall this site varies greatly from areas that are re-vegetating rapidly since they came out of production to areas that are currently under production (Bare peat). Topographically, the site undulates and has regular small hills of gravel that are exposed between areas of low lying peat, the latter areas being still in production. A rail line crosses the site in an east west direction, dissecting the site into a much larger northern section and a smaller southern section.

Over all the majority of the site is still zoned as production but as the peat resource on this site becomes exhausted small hills and ridges of gravel are being exposed, these hills and ridges are becoming revegetated with Dry grassland mosaic (DisCf, gCal and gAn-H-Eq). Areas between these hills are either still in production or are revegetating with plant species that are indicative of poor fen habitats such as pEang, pTyp and pJeff. Birch scrub is also becoming established on many of the habitats that have been out of production for longer periods of time, particularly the drier areas.

A conifer plantation was planted in 1995 and is comprised of Sitka and Norway spruce. Some sections of this plantation had trees of medium quality and were in need of thinning and fertilisation, however the majority of the area was extremely poor, with dead or dying trees throughout. The most logical reason for the widespread loss of trees in this plantation was the presence of Heather throughout these areas. Heather is extremely well suited to savaging nitrogen from poor soils and will deprive trees such as Sitka Spruce of nitrogen, causing them to go into check followed by eventual death. Birch and Scots Pine had become established in areas of the plantation and appeared to be doing much better than the spruce.

Immediately to the east of the conifer plantation a large area of the site was largely revegetated with a mixture of cBir, oBir, dHeath, BP and pEang. Much of the cBir was dense and was developing into bog woodland. Other areas beyond the cBir were younger and were a mosaic of wet and dry habitats (depending on the topography of the site), intermixed with areas of bare peat. To the south east of the conifer plantation a row of three small hills were at different levels of development, mainly Birch scrub, but the notable feature of these areas was the

presence of Oak and Hazel.

A large mineral island is located within the site boundaries in the centre of the site. This "Island" is connected to the public road that runs close to the northern boundary of the site via a small track. This area is not owned by BnM and is managed as agricultural grassland. To the south of the mineral island the site is a mixture of pioneer habitats including DisCf, BP, eBir, pJeff and gCal. To the south of the revegetating areas the site is still in production.

The central-eastern part of the site is largely a mixture of dry grassland mosaics and wet grassland mosaics (gCal, DisCf, eBir, oBir, pJeff, pEang, pPhrag, pTyp), with areas of bare peat scattered throughout, some of the areas of bare peat were large but some areas were much smaller and were comprised of a couple of short fields between gravel ridges.

A small works area is located along the railway line close to the eastern end of the line. This works area is comprised of a large tea centre with large amounts of machinery stored around it. Immediately to the north of the works area an area of scrub (cBir) that was developing some of the components of Oak Ash Hazel woodland. This woodland is young and is still developing with Birch, Oak, Rowan, Holly, Hawthorn, Hazel, Guelder Rose, Bramble, Raspberry, Herb-Robert, Meadow-sweet, Honey-suckle, Tufted Sedge, Purple Moor-grass and Male Fern. Paths through this area of the site were in regular use by BnM machinery and relatively large areas of Meadow-sweet dominated wet grassland was located along the access routes. A large rectangular shaped area had been excavated in this area and was filled with water resulting in the presence of an artificial pond. This pond did not contain many macrophytes apart from Reedmace, Floating Sweet Grass with some Water Crow's-foot also. The wet grassland areas contained Meadow Sweet, Knapweed, Willow, Plantain, Vetch, Sweet Vernal-grass, Devil's Bit-Scabious, Hogweed, Horsetails, Red Clover and Creeping Bent Grass. A small wet hollow was also located close to this area and further investigations may be needed in order to determine if this is an actual spring. Although this spot was damp with no standing or flowing water at the time of the ecological survey it did contain tufa which may indicate the presence of springs in this area.

Moving north from this area towards the north eastern corner of the site, the bog again comprises a mosaic of habitats including pJeff, pEang, eBir, gCal, pEus and DisCf, the largest single habitat consists of a large area of pJeff and oBir along the western edge of the north east corner of the site. An old, disused, railway line is located close to the eastern edge of the site and has been colonised with gMol, dHeath and eGor, several old railway carriages are still located on the track.

The north eastern corner of the site also contains two small mineral islands that contain Birch, Oak, Blackthorn, Ash and Hazel along with Male fern, Bramble, Lords and Ladies, Hogweed, Harts Tongue Fern, Honeysuckle, Wood Anemone and Herb Robert. Sections of these mounds contain large mature Oak (older than 100 years).

Moving westwards from the mire onto sections of cutover, the site again becomes a mosaic of habitats, mainly pJeff, oBir and bare peat before encountering a mineral island. This mineral island is similar to the one that has already been described to the north of the railway line.

Moving west a large area of bare peat is located before the site again becomes a mosaic of pioneer poor fen and pioneer grassland habitats.

The south west corner of the site is mainly bare peat with pTrig, pRos and pTyp becoming established along the drains, this area is marked on the 2nd edition OSI 6 inch map as a small lake called Lough Anpastia. This lake no longer exists and there is no evidence of it ever having been present on the ground. A pump was in operation close to this area.

This site is dry because of constant pumping and at least three pumps are located on the site. Some of the drains in the east of the site have been excavated down to limestone bedrock, Otter spraint were found in one of these drains in the northern section of the site, this drainage ditch is connected to the nearby Royal Canal.

Lough Bawn pNHA 001819

This area is located along the eastern edge of the site. It is bordered by remnant raised bog to the south, west and north while an area of woodland on mineral soil borders Lough Bawn to the east. The south eastern corner of the site is bordered by conifer plantation, part of which was clear felled in the past few years and replanted. The majority of the Lough is in Bord na Mona ownership with a small section owned by Coillte.

The sections of raised bog that surround part of the Lough were in moderate to poor condition overall and the most westerly sections had been ditched many years ago. The ditched sections were dominated by Heather; however the most southerly section of raised bog were in some what better condition with a more varied flora.

Lough Bawn is fringed with woodland through out. This woodland varies from wet bog woodland (WN7) to dry Oak Ash Hazel woodland (WN2) along its eastern side. The woodland that fringes the Lough to the west, north and south is bog woodland (WN7) that varies from sparse cover to denser cover; these sections of bog woodland were quaking and had a high cover of Sphagnum moss in general. These sections of woodland are classed as Annex I habitats (91D0) and are considered to be a rare habitat in Ireland with an estimated nation wide land cover of 150ha approximately (NPWS - Bog woodland (91D0) Conservation Status Assessment report).

The areas of bog woodland ranged to thick, dense areas of woodland to areas that had a lesser density of trees. The main tree species were Birch and Scot's Pine along with Alder, Eared Willow and some gorse. There was extensive evidence that the water levels fluctuate throughout these areas, with some areas being permanently water logged with a quaking feel throughout. Species within the areas of bog woodland included Bog Myrtle, Devil's-bit Scabious, Bog Bean, Honeysuckle, Soft Rush, Sphagnum palustre, Ivy, Bramble, Sweet Vernal Grass, Heather, Star Sedge, Wood Horsetail, Grey Willow, Holly, Broad Buckler Fern, Cow wheat, mint, Water Horsetail, Hogweed, Calliargon sp., Ragged Robin, Lesser Spearwort, Lousewort, *Aulacomnium palustre*, Spotted Marsh Orchid, Marsh Bedstraw, Yorkshire Fog, Heath Wood-Rush and *Epilobium obscurum*.

A section of mature Oak-Ash-Hazel (WN2) is located on the eastern side of Lough Bawn, this woodland was relatively dry and was located on mineral soil. Species here included Birch, Scot's Pine, Ash, Alder, Willow, Hazel, herb Robert, Spindle, Enchanter's nightshade, Ivy, Honeysuckle, Wood False Broome, Hypnum sp., Bramble, Viola sp., Blackthorn, Rowan, Wavy hair Grass, Meadow Sweet, Wood horsetail, Wild strawberry, Holly, hawthorn, Blackthorn, Gorse, Glaucous Sedge, Sycamore, Bush Vetch, Cock's foot, Beech, Rough meadow Grass, Spear Thistle, Wood dock, Wood Sanicle, wood Sedge, Primrose, Lady Fern, Sorrell, Male Fern, Hart's Tongue Fern, Yew, Wytch Elm, *Polytrichum commune*, Yellow rattle, Cep, Bay Bolete, Common Puffball and Trooping Funnel Cap.

A section to the east of this woodland has been fenced off and is grazed, the grazed area ran along the entire eastern edge of the woodland.

The Coillte owned woodland to the south east of Lough Bawn is a mixture of recently felled conifer plantation and mature plantation with sitka Spruce, Norway Spruce and Lodgepole Pine, the edge of these sections were a mixture of species such as Oak, Birch and Hazel with some Yew also.

Lough Bawn had been a lake up until 1964 when drainage of the lake begun, after this initial drainage the water levels shrink until the lake was mostly terristrailized by the late 1960's. This area is classed as transition mire and quaking bog (PF3) according to Fossitt, 2000.

At present the lough has filled in with very small amounts of open water remaining and the entire area has a quaking feel to it. The Lough is covered with a mat of vegetation containing hummocks of vegetation interspersed with shallow water. The Lough is dominated with mosses and sedges and individual trees have spread across the surface of the Lough. Plant species in the area of the lough include Purple Moor Grass, Eared Willow, Birch, Bog Asphodel, Bog Bean, Devil's-bit Scabious, Star Sedge, Purple Loosestrife, Greater Tussock Sedge, Bottle Sedge, Sphagnum palustre (tussock forming) *S. subnitens*, Heather, Lesser tussock Sedge, Marsh cinquefoil, *Aulacomnium palustre* (tussock forming), marsh Pennywort, Round-leaved Sundew, Wild Angelica, Marsh Thistle, Ragged Robin, Reedmace, Alder, Mint, Water Horsetail, Creeping Bent-grass, *Eriophorum angustifolium* and Lousewort. *Usnea* sp. lichen was growing on the branches of many of the trees.

One of the BnM employees on the site reported the presence of springs at locations around the site.

There are records of Black Headed Gull, Snipe and Lapwing using this site.

Old BnM plastic has been dumped in one section of the site.

Forestry and potential forestry on site

A conifer plantation is located in the north of the site. This plantation is mainly Sitka Spruce with some Norway Spruce, these trees are in poor condition with the majority of the trees in check or dying. However, there are some areas within the plantation where there has been moderate tree growth and these areas could be thinned and fertilised. The best approach for this plantation is to employ a shelter-wood silvicultural system. This would entail felling and clearing areas along the eastern edge of the plantation and thus leaving taller trees to the south east where the taller trees would provide shelter from the prevailing winds. The sections of spruce that have failed all had a thick ground layer of Heather. Heather will out-compete spruce in terms of obtaining nitrogen from poor soils and this is one of the likely reasons for the failure of the plantation. In a shelter-wood silvicultural system the cleared areas would be replanted immediately with Scot's Pine which would be vastly more suited to the ground conditions that are present on this site.

Numerous small mineral islands are located around the site, some of these areas are already developing Oak-Ash-Hazel (WN2) woodland, in the future it would be envisioned that this habitat would expand across the site in time. An old section of Oak-Ash-Hazel woodland is located in the north east of the site and some of the trees are estimated to be older than 100 years.

A band of bog woodland (WN7) encircles most of the transition mire area in the south east of the site. This woodland is mainly Scot's Pine and Birch and qualifies as the Annex I habitat "bog woodland (91D0)" and is considered to be a priority habitat.

Coillte own the section of woodland to the south east of Lough Bawn. This forested area consists of recently felled conifer plantation with some mature conifer woodland to the east.

There is the potential to enter the woodland to the east of Lough Bawn into the Native Woodland Scheme under Element I of the scheme. Some of the higher mounds could also be used to develop areas of native woodland depending on future hydrological changes.

Designated areas on site (cSAC, NHA, pNHA, SPA other)

Lough Bawn is situated in the south eastern corner of the site and was formally a lake until the late 1960's. The lake dried out after intensive drainage works and is now classified as a 'Transition mire and quaking bog' pNHA 001819.

Adjacent habitats and land-use

Adjacent habitats include improved agricultural grassland (GA1), wet grassland (GS4), conifer plantation (WD4), raised bog (PB1), recently planted woodland (WS2) and cutover bog (PB4). The Royal Canal (FW3) is located approximately 0.5km to the east of the site.

Watercourses (major water features on/off site)

- The Bilberry River begins at the southern boundary of the site, this river flows southwards before flowing into Lough Ree
- A tributary of the Bilberry River begins in the south western corner of the site.
- A tributary of the River Shannon starts in the north of the site before flowing northwards.
- All of the watercourses are part of the Shannon catchment.
- The Royal Canal flows within 0.5km of the eastern edge of the site.

Peat type and sub-soils

As the peat resource becomes exhausted gravel ridges and hills are exposed, these hills are composed of

Limestone gravel.

Fauna biodiversity

Several bird species were noted on the site during the survey.

- Raven (2)
- Sky Lark
- Sand marten
- Common Gull
- Snipe (3)
- Swans are reported to be using the flooded areas during the winter.
- Other more common species include Meadow Pipits, Swallow, Dunnock, Blackbird, Chaffinch, Wood Pigeon, Pheasant and Magpie.

Mammals

- Otter spraint found in a drainage ditch in the north east of the site, this drain is connected to the nearby Royal Canal.
- Pine Marten
- Badger
- Fox
- Hare
- Rabbit

Invertebrates

- Silver-washed Fritillary Butterfly
- Peacock Butterfly
- Green-veined White Butterfly
- Large Heath Butterfly
- Large White Butterfly
- Small Heath Butterfly
- Small Copper Butterfly
- Painted Lady Butterfly

Fish

- Stickleback in the drains

Fungal biodiversity

The Oak-Ash-Hazel woodland along the eastern boundary of the site is rich in fungal diversity with Ceps, Bay Bolete, Razor Strop and Trooping Funnel Cap observed.

Activities on the site

Activities on the site include:

- Peat production is still carried out at various locations around the site however as time goes by more

and more areas are coming out of production and are becoming re-vegetated.

- Most of the site is pumped to prevent water logging, when production is finished it is assumed that these pumps will be turned off resulting in many areas developing areas of open water between dry gravel hills and ridges.
- Some old railway carriages have been abandoned on the site
- Cattle have been grazing sections of woodland along the eastern boundary of the site.
- Some old BnM plastic has been discarded on sections of the bog.

Future issues for biodiversity management

Potential issues for biodiversity management once production has ceased include:

- Once production has ceased it is assumed that the water pumps will be turned off, this will result in the site becoming a mosaic of dry and wet habitats. Natural basins on the site will quickly develop wetland habitats interspersed with higher, drier habitats.
- Natural regeneration appears to be capable of establishing vegetation on this site quite quickly

Potential management options for Biodiversity

There are several potential management options for this site after industrial peat-cutting has ceased, some of which can be applied to different sections that have different potentials to enhance their biodiversity value. These suggested options do not preclude other land-uses of the site in the future.

- Bunds could be constructed on the site such as the north east corner and the south west corner in order to create wetlands. This would also re-develop a wetland on the area that was once occupied by Lough Anpastia.
- In the area of the conifer plantation the dying spruce could be replaced with Scot's Pine. This species would be better suited to conditions on the site while also proving beneficial to nature conservation. This area could be managed jointly with Coillte as a biodiversity area.
- Lough Bawn area managed as a key nature conservation site. There is potential for this area to be part of a LIFE project with development bog sites (Largest bog woodland Annex I habitat on BnM property). Works to be carried out in this area could include drain blocking.
- Development of excavated trenches as ponds.
- Development of woodlands on the drier mounds under the Native Woodland Scheme.

Potential future natural habitats on the site

This section attempts to predict the development of natural habitats on the site, assuming there is no intervention or changes in land-use. This prediction is based on research and methods used to predict the natural vegetation of Ireland (Cross 2006). Cross (2006) predicted that cutaway bog is likely to develop a mosaic of Birch forest, alder and ash-alder carr, fen and heath in the future. There is no time-line given for the development of these habitats, although it could be expected that the development of natural climax habitats could take hundreds of years. The complexity is the result of small scale variations in the substrate and other environmental factors such as drainage and ground-water influence.

- Wetlands will develop once the water pumps cease, the extent of these wetlands will depend on the level of water after the pumping stops.
- Woodlands will develop in the drier areas such as on top of the gravel mounds, these woodlands are likely to be a mixture of Oak-Ash-Hazel (WN2) woodland and Bog woodland (WN7).
- The areas of wet grassland along the western edge of the site are likely to become wet woodland if

grazing does not occur.

- Lough Bawn, depending on future hydrological developments may continue to dry out or become wetter with the development of a larger area of open water.
- Potential rich fen may develop where springs are present.

References

European Commission (1996). Interpretation manual of European Union habitats. Brussels. European Commission, DGXI.

Fossitt, J. (2000). A guide to habitats in Ireland. Kilkenny. The Heritage Council.

HABITAT DESCRIPTIONS

(See Habitats Description Document for detailed description of each vegetation community not described in this section.)

HABITAT DESCRIPTIONS

Appendix I. Codes used for habitat classification.

Bord na Moña habitat classification scheme

	General	Habitat ¹	BnM habitat code	Equivalent Heritage Council codes ²
Pioneer habitats of industrial cutaway	Peatland	Bare peat (0-50% cover)	BP	ED2
		Embryonic bog community (containing <i>Sphagnum</i> and Bog Cotton)	PBa	PB
		Embryonic bog community (Calluno-Sphagnion)	PBb	PB
	Flush and Fen	Pioneer <i>Campylopus</i> -dominated community	pCamp	PF2
		Pioneer <i>Juncus effusus</i> -dominated community (Soft Rush)	pJeff	PF2
		Pioneer <i>Eriophorum angustifolium</i> -dominated community (Bog Cotton)	pEang	PF2
		Pioneer <i>Juncus bulbosus</i> -dominated community (Bulbous Rush)	pJbulb	PF2
		Pioneer <i>Triglochin palustris</i> -dominated community (Marsh Arrowgrass)	pTrig	PF2
		Pioneer Caricion davallianae-Community with <i>Cladium</i> (rich fen)	pCladium	PF1
	Emergent communities	Pioneer <i>Carex rostrata</i> -dominated community (Bottle Sedge)	pRos	FS1
		Pioneer <i>Phragmites australis</i> -dominated community (Common Reed)	pPhrag	FS1
		Pioneer <i>Typha latifolia</i> -dominated community (Reedmace)	pTyp	FS1
		Pioneer <i>Schoenoplectus lacustris</i> -dominated community (Bulrush)	pSch	FS1
	Open water	Charaphyte-dominated community	pChar	FL2
		Permanent pools and lakes	OW	FL2
		Temporary open water	tOW	
	Woodland and scrub	Emergent <i>Betula/Salix</i> -dominated community (A) (Birch/Willow)	eBir	WS1
		Open <i>Betula/Salix</i> -dominated community (B) (Birch/Willow)	oBir	WS1
		Closed <i>Betula/Salix</i> -scrub community (C) (Birch/Willow)	cBir	WS1
		<i>Ulex europaeus</i> -dominated community (Gorse)	eGor	WS1
		<i>Betula/Salix</i> -dominated woodland (Birch/Willow)	BirWD	WN7
	Heathland	Pioneer dry <i>Calluna vulgaris</i> -dominated community (Heather)	dHeath	HH1
		Dense <i>Pteridium aquilinum</i> (Bracken)	dPter	HD1
	Grassland	Pioneer dry calcareous and neutral grassland (Centaureo-Cynosuretum)	gCal	GS1
		<i>Dactylis-Anthoxanthum</i> -dominated community (Cocksfoot-Sweet Vernalgrass)	gCo-An	GS2
		<i>Anthoxanthum-Holcus-Equisetum</i> community (Sweet Vernalgrass-Yorkshire Fog-Horsetail)	gAn-H-Eq	GS
		<i>Molinia caerulea</i> -dominated community (dry) (Purple Moorgrass)	gMol	GS4
		Marsh (Meadowsweet and other tall herbs) (<i>Filipendulion ulmariae</i>)	Mar	GM1
Disturbed	Pioneer <i>Tussilago farfara</i> -dominated community (vegetation > 50%) (Colt's Foot)	DisCF	ED3	
	<i>Epilobium</i> -dominated community (vegetation > 50%) (Willowherb spp.)	DisWil	ED3	
General	Riparian areas (streams or drain with associated edge habitats (e.g. FW2/4 + WS1, GS2 etc)	Rip	FW2 +	
	Silt Ponds (artificial ponds with associated bank habitats (e.g. FL8 + WS1, GS2, ED2, ED3)	Silt	FL8 +	
	Access (tracks or railways with associated edge habitats (e.g. BL3 + gCal, gMol, eGor etc)	Acc	BL3 +	
	Works areas (predominately built land but can include landscaped and brownfield habitats (e.g. GA2, WS3, WD4, ED2, ED3)	Works	BL3 +	

¹ These are generally pioneer habitats of bare peat and the communities can contain a significant proportion of bare peat. Some habitats are more developed than others. They frequently occur in mosaic with each other.

² Not all these communities are equivalent to habitat classes used by The Heritage Council habitat classification scheme (Fossitt 2000) as some are quite rudimentary and undeveloped.

Heritage Council habitat classification scheme (Fossitt 2000)

	General	Habitat	Heritage Council code
Semi-natural and modified habitats	Peatlands	Raised Bog	PB1
		Lowland Blanket bog	PB3
		Cutover Bog	PB4
		Rich fen and flush	PF1
		Poor fen and flush	PF2
		Transition mire and quaking bog	PF3
	Woodland and scrub	Oak-Birch-Holly woodland	WN1
		Oak-Ash-Hazel woodland	WN2
		Wet Pendunculate Oak-Ash woodland	WN4
		Riparian Woodland	WN5
		Wet Willow-Alder-Ash woodland	WN6
		Bog woodland	WN7
		Mixed broad-leaved woodland	WD1
		Mixed broad-leaved/conifer woodland	WD2
		Conifer plantation	WD4
		Scrub (Gorse)	WS1
		Emergent Betula-dominated community	WS1
		Closed Betula scrub community	WS1
		Recently-planted woodland	WS2
		Ornamental scrub	WS3
	Short-rotation coppice	WS4	
	Recently-felled woodland	WS5	
	Linear woodland	Hedgerow	WL1
		Treeline	WL2
	Grasslands and Marsh	Improved grassland	GA1
		Amenity grassland	GA2
		Dry calcareous and neutral grassland	GS1
		Dry meadows and grassy verges	GS2
		Dry-humid acid grassland	GS3
		Wet grassland	GS4
	Freshwater Marsh	GM1	
	Heath and Bracken	Dry Heath	HH1
		Dry calcareous Heath	HH2
		Wet Heath	HH3
		Dense Bracken	HD1
	Disturbed ground	Exposed sand, gravel or till	ED1
		Spoil and bare ground	ED2
		Recolonising bare ground	ED3
		Active quarry	ED4
	Freshwater	Acid Oligotrophic lakes	FL2
		Mesotrophic lakes	FW4
Artificial ponds (slit ponds)		FL8	
Depositing rivers		FW2	
Canals		FW3	
Drains	FW4		
Cultivated and Built land	Stonewalls and other stonework	BL1	
	Earth Banks	BL2	
	Buildings and artificial surfaces	BL3	
	Arable crops	BC1	
	Horticulture	BC2	
	Tilled land	BC3	