

MONEYGAL BOG SAC
UK0030211

CONSERVATION OBJECTIVES

Document Details

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V1	June 2013	Internal working document	PC
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1. INTRODUCTION

EU Member States have a clear responsibility under the Habitats and Birds Directives¹ to ensure that all habitats and species of Community Interest are maintained or restored to Favourable Conservation Status (FCS). Natura 2000 sites have a crucial role to play in achieving this overall objective since they are the most important core sites for these species and habitats. Each site must therefore be managed in a way that ensures it contributes as effectively as possible to helping the species and habitats for which it has been designated reach a favourable conservation status within the EU.

To ensure that each Natura 2000 site contributes fully to reaching this overall target of FCS, it is important to set clear conservation objectives for each individual site. These should define the desired state, within that particular site, of each of the species and habitat types for which the site was designated.

Once a site has been included in the Natura 2000 network, Member States are required to implement, on each site, the necessary conservation measures which correspond to the ecological requirements of the protected habitat types and species of Community Interest present, according to Article 6.1 of the Habitats Directive. They must also prevent any damaging activities that could significantly disturb those species and habitats (Article 6.2) and to protect the site from new potentially damaging plans and projects likely to have a significant effect on a Natura 2000 site (Article 6.3, 6.4).

Conservation measures can include both site-specific measures (i.e. management actions and/or management restrictions) and horizontal measures that apply to many Natura 2000 sites over a larger area (e.g. measures to reduce nitrate pollution or to regulate hunting or resource use).

In Northern Ireland, Natura 2000 sites are usually underpinned by the designation of an Area of Special Scientific Interest (ASSI) under the Environment (NI) Order 2002 (as amended).

¹ 92/43/EEC and 2009/147/EC (codified version of Directive 79/409/EEC as amended)

2. ROLE OF CONSERVATION OBJECTIVES

Conservation Objectives have a role in

- Conservation Planning and Management – guide management of sites, to maintain or restore the habitats and species in favourable condition
- Assessing Plans and Projects, as required under Article 6(3) of the Habitats Directive - Habitats Regulations Assessments (HRA) are required to assess proposed plans and projects in light of the site's conservation objectives.
- Monitoring and Reporting – Provide the basis for assessing the condition of a feature, the factors that affect it and the actions required.

3. DEFINITION OF FAVOURABLE CONSERVATION STATUS

Favourable Conservation Status as defined in Articles 1(e) and 1(i) of the Habitats Directive:

The conservation status of a natural habitat is the sum of the influences acting on it and its typical species that may affect its long-term natural distribution, structure and functions as well as the long term survival of its typical species. The conservation status of a natural habitat will be taken as favourable when:

- Its natural range and areas it covers within that range are stable or increasing, and
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- The conservation status of its typical species is favourable as defined in Article 1(i).

For species, favourable conservation status is defined in Article 1(i) as when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and;
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and;
- there is, and will probably continue to be, a sufficiently large habitat to maintain its population on a long term basis.

3.1 DEFINITION OF FAVOURABLE CONDITION

Favourable Condition is defined as “the target condition for an interest feature in terms of the abundance, distribution and/or quality of that feature within the site”.

The standards for favourable condition (Common Standards) have been developed by JNCC and are applied throughout the UK. Achieving Favourable Condition on individual sites will make an important contribution to achieving Favourable Conservation Status across the Natura 2000 network.

4. SITE INFORMATION

COUNTY: TYRONE

GRID REFERENCE: H 238883

AREA: 155.79 ha

Moneygal Bog ASSI	G.R : H 238883
Moneygal Bog ASSI Part II	G.R : H 254884

5. SUMMARY SITE DESCRIPTION

Moneygal Bog lies in a basin surrounded by low hills directly north of Castlederg and represents the most north-westerly lowland raised bog in Northern Ireland. The bog lies at a moderate elevation between 130m and 140m O.D. and displays some characteristics of transitional/ intermediate bog. It is set within a landscape which has largely been improved for agricultural use.

A bog burst that occurred in 1910 has resulted in a soak surrounded by a large pool system which extends to the centre of the bog. The pools are arranged concentrically around the site of the soak and represent one of the best raised bog pool systems in Northern Ireland. In addition, a number of notable plant species have been recorded including *Sphagnum imbricatum* and *S. fuscum*.

Further details of the site are contained in the ASSI Citation and Views About Management statement, which are available on the NIEA website (www.doeni.gov.uk/niea).

5.1 BOUNDARY RATIONALE

The SAC takes in two ASSIs, Moneygal Bog and Moneygal Bog Part II, in their entirety. The boundaries have been drawn to include all areas of intact lowland raised bog and associated semi-natural habitats, including cutover bog and small pockets of Birch scrub, in addition to a small block of forestry plantation. It should be noted that during the original survey, an extensive area of cutover bog to the east of the site was not included within the ASSI boundary because it was actively being cut for turf at the time and consequently was in a very degraded state. In addition, the small forestry plantation was also excluded.

During a more recent visit to the site, it was established that all peat cutting had ceased and that much of the cutover originally excluded from the Moneygal ASSI was actively regenerating. With the aid of recent colour aerial photographs, it was clear that the original boundary of the ASSI was too constrained and further visits confirmed that the cutover bog and the forestry plantation provided a valuable area of associated habitat. This review of Moneygal Bog confirmed that the exclusion of a significant part of the hydrological unit from the site was an anomaly in the boundary (i.e. it was not conducive to the long term hydrological integrity of the raised bog unit and was not consistent with the boundary rationale of other lowland bog ASSIs). Moneygal Bog Part II was designated to rectify this anomaly.

The SAC boundary around the site encompasses both ASSIs and clearly defines the edge of the hydrological unit. The edge of Moneygal Road forms part of the boundary along the southern edge of the bog and along a strip to the north-west. Another stretch of the boundary to the north-west of the site is marked by a series of ditches and banks, but is not stock proof. Along the north-eastern side of the site, the ASSI boundary follows the international border between Northern Ireland and the Republic of Ireland. Again, this boundary is partially fenced and is stock proof, while the remaining boundary is marked only by a shallow ditch, barely visible on the ground. The boundary to the extreme east of the site is marked by a stream, which is partially fenced, although parts of the stream are not stock proof. The remaining boundary to the south-east around the small forestry block and along the south-western edge is fenced and appears to be stock proof. There is some evidence that where the boundary is not stock proof, livestock – mainly cattle - have been grazing around the periphery of the cutover bog.

6. SAC SELECTION FEATURES

Feature type	Feature	Global Status	Size/ extent/ population
Habitat	Active raised bog	B	114.2 ha
Habitat	Degraded raised bog still capable of regeneration	D	38 ha
Habitat	Depressions on peat substrates of the <i>Rhynchosporium</i>	D	0.1 ha

Table 1. List of SAC selection features. Those with global status A-C will be referred to in ANNEX I.

The global status is an expert judgement of the overall value of the site for the conservation of the relevant Annex I habitat. Sites have been graded A, B or C - in the UK these gradings have been interpreted as follows:

A - Sites holding outstanding examples of the habitat in a European context.

B - Sites holding excellent stands of the habitat, significantly above the threshold for SSSI/ASSI notification but of somewhat lower value than grade A sites.

C - Examples of the habitat which are of at least national interest (i.e. usually above the threshold for SSSI/ASSI notification on terrestrial sites) but not significantly above this. These habitats are not the primary reason for SACs being selected.

D - Habitat present but not of sufficient extent or quality to merit listing as SAC feature.

There is therefore a distinction between the principal features for which sites have been selected (those graded A or B) and those which are only of secondary interest (those graded C). This is a useful distinction but it is important to note that all three grades are qualifying SAC interest features.

Click [here](#) to go to the Natura 2000 Standard Data Form for Moneygal Bog SAC.

6.1 ASSI SELECTION FEATURES

Moneygal Bog ASSI

Feature Type	Feature	Size/ extent/ population
Habitat	Lowland Raised Bog	152.3 ha

Table 2. List of ASSI features.

7. CONSERVATION OBJECTIVES

The *Conservation Objective* for this site is:

To maintain (or restore where appropriate) the active raised bog to favourable condition.

For each SAC feature, there are a number of component objectives which are outlined in the table below. These include a series of attributes, measures and targets which form the basis of *Condition Assessment*. The results of this will determine whether the feature is in favourable condition or not. The feature attributes and measures are found in the attached annex.

8. SAC SELECTION FEATURE OBJECTIVE REQUIREMENTS

SAC Feature	Global Status	Component Objective
Active raised bog	B	Maintain the extent of intact lowland raised bog and actively regenerating raised bog vegetation.
		Maintain and enhance the quality of the lowland raised bog community types including the presence of notable species.
		Seek to expand the extent of actively regenerating raised bog vegetation into degraded (non-active) areas of cutover bog.
		Maintain the diversity and quality of other habitats associated with the active raised bog, e.g. acid grassland, fen and swamp, especially where these exhibit natural transition to the raised bog.
		Maintain the hydrology of the raised bog peat mass.
		Seek nature conservation management over suitable areas immediately outside the SAC where there may be potential for lowland raised bog rehabilitation.

9. ASSI FEATURE OBJECTIVE REQUIREMENTS

ASSI Feature	Component Objective
Lowland Raised Bog	Maintain the extent of intact lowland raised bog.
	Seek to expand the extent of actively regenerating raised bog.
	Maintain the hydrology of the raised bog peat mass.

10. MANAGEMENT CONSIDERATIONS

Ownership

Forest Service owns all of the site, including Turbary Rights, except for one small parcel of land to the north. With Forest Service the major landowner, there should be no significant management constraints.

The intact surface of the bog has been declared as a Forest Nature Reserve, thus acknowledging the conservation status of this site. The majority of lands around the periphery of the site are grazed by cattle and in some instances sheep. In a few instances, there is no stock-proof boundary between the ASSI and surrounding rough pasture. As a consequence, some stock does graze around the periphery of the ASSI.

Adjoining Land Use

The main adjoining land-use outside the ASSI is rough pasture and coniferous forestry plantation.

11. MAIN THREATS, PRESSURES AND ACTIVITIES WITH IMPACTS ON THE SITE

Both on-site and off-site activities can potentially affect SAC/ASSI features. The list below is not exhaustive, but deals with the most likely factors that are either affecting Moneygal Bog, or could affect it in the future. Although Active Raised Bog is the qualifying SAC feature, factors affecting ASSI features are also considered.

NOTE - Carrying out any of the Notifiable Operations listed in the ASSI schedule could affect the site.

Peat Cutting

Extensive peat cutting has been carried out within the SAC boundary in the past. Over many years these cuttings have encroached significantly into the intact surface of the raised bog. The majority of the peat cutting is old hand cutting and is regenerating well. However, there has been some mechanised peat extraction in more recent years in places. This has been mostly within the old cuttings and there does not appear to have been any significant encroachment onto the intact surface of the bog.

Forest Service owns the turbary rights bog and have terminated all turbary leases. It is possible that occasional plots have been mechanically cut in some years.

ACTION: No peat cutting within the SAC.

Burning

Burning of the vegetation has taken place occasionally, with some areas of past burning being clearly identified. Excessive burning will tend to reduce the cover of

Sphagnum mosses and ericaceous species, increasing the % of *Molinia caerulea* and *Trichophorum cespitosum*. In addition, burning can reduce vegetation structural diversity.

ACTION: No burning within the SAC.

Drainage

On the intact surface there are a few very old drains shown faintly on the aerial photograph. They are not apparent on the ground and appear to have little effect on the hydrology of the intact dome. Old drains in the cutover do not appear to be taking water from the dome at the present time. The only area which has been extensively drained in recent years and which could have some impact on the surrounding bog is the afforested area to the south-east of the site. Prior to planting, an extensive drainage network was installed to give the trees a more suitable substrate on which to grow. Despite these drainage attempts, the trees have not flourished, probably because the peat remains much too wet. Note that drainage works outside the site's boundaries could potentially impact upon the bog's hydrology.

ACTION: Block active drains where appropriate.

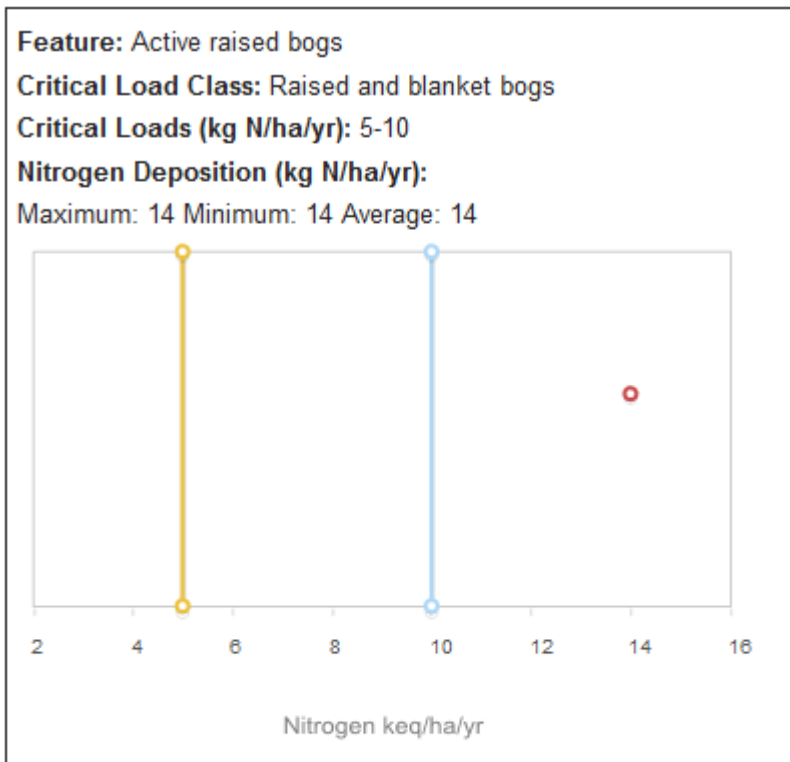
Grazing

Lowland raised bogs are not suitable for grazing, as the surface is fragile and easily damaged by poaching. Although Forest Service do not lease any part of the site for grazing, there is evidence that some grazing has taken place within the SAC boundary, although all grazing is restricted to the periphery, along the north-western edge of the site. As the boundary along the border between the Republic of Ireland and the SAC is not stock proof, cattle move into peripheral areas of the cutover bog and graze the grassy areas, sometimes moving up onto the ramparts which extend out into the bog. However, the cattle do not appear to graze the regenerating cutover bog and there is no evidence that they have ever moved out onto the intact surface. Although not an immediate threat to the scientific interest of the bog, grazing of the peripheral peats of the site should be phased out through adequate fencing.

ACTION: Fences around the periphery of the bog should be maintained to prevent grazing occurring on the site.

Nitrogen Deposition

Excess nitrogen deposition can favour the growth of competitive plants and lead to changes in ecosystem structure or function and to a reduction in biodiversity. National scale studies show the potential adverse effects of excess nitrogen on natural and semi-natural habitats to be widespread across the UK. Lower and upper critical loads have been calculated for Moneygal Bog SAC.



(Source: Air Pollution Information System (APIS) website- www.apis.ac.uk)

ACTION: Seek to maintain or where necessary, restore concentrations and deposition of air pollutants to at or below the site-relevant critical load.

Scrub Encroachment

There are some pockets of trees and scrub on the cutover bog situated around the periphery of the intact surface of Moneygal Bog. Any further scrub encroachment into the actively regenerating cutover areas, or onto the intact surface is undesirable.

ACTION: Monitor scrub encroachment and take remedial action if required. Remove any invasive exotic species, such as Rhododendron as a matter of urgency.

Afforestation

Moneygal Bog is one of the few protected lowland raised bogs which has an afforested area within the site boundaries. In the south-eastern corner (within Moneygal Bog Part II ASSI) there are c 14 ha of forestry plantation. Although it is showing very poor growth. The area has been included as part of the hydrological unit and NIEA would like to see the plantation removed as part of a restoration

programme to rehabilitate the cutover bog, and to prevent the adjacent intact surface from drying out.

ACTION: Negotiate with Forest Service for the medium- to long-term removal of trees from within the SAC, in association with the blocking of active drains that are carrying water from the site.

Fly-tipping

There has been some localised fly tipping along the side of the road. Although this is not particularly damaging to the interest of the site, it is unsightly and could encourage others to continue the practice.

ACTION: Remove all evidence of past fly-tipping. If localised fly-tipping does occur, it should be removed as soon as possible to help prevent any further incidences of dumping.

Changes to surrounding land use

Any changes in local land-use e.g. drainage, road improvements, afforestation, agricultural intensification and development, may be detrimental to the SAC.

Action: Reduce the risk of surrounding agricultural intensification by encouraging the adjacent owner/occupiers to enter into agri-environment schemes. Use Habitats Regulations Assessments (HRAs), through the planning process, to minimise any development risks adjacent to the SAC.

Climate Change

Northern Ireland faces changes to its climate over the next century. Indications are that we will face hotter, drier summers, warmer winters and more frequent extreme weather events.

ACTION: When developing SAC management plans, the likely future impacts of climate change should be considered and appropriate changes made.

12. MONITORING

Monitoring of SACs takes place on using two monitoring techniques.

Site Integrity Monitoring (SIM) is carried out to ensure compliance with the ASSI/ SAC Schedule. The most likely processes of change will either be picked up by SIM (e.g. dumping, burning, turf cutting, grazing etc.) or will be comparatively slow (e.g. gradual degradation of the bog and associated habitats through desiccation).

These longer-term changes will be picked up by monitoring of the feature via **Site Condition Assessment** - this is carried out on a rolling basis to pick up subtle changes in the condition of the feature.

The method for Site Condition Assessment was agreed by the relevant JNCC-led Lead Co-ordination Network although the methodology has been modified to reflect individual site attributes in Northern Ireland.

12. 1 MONITORING SUMMARY

- **Monitor the integrity of the site (SIM or Compliance Monitoring)** – Complete boundary survey. Ensure that there has been no peat cutting, dumping or burning carried out within the SAC boundary. This SIM should be carried out once a year.
- **Monitor the condition of the site (Condition Assessment)** – Monitor the key attributes for the active raised bog. This will detect if the active raised bog is in favourable condition or not. See Annex 1 for SAC features.

The favourable condition table provided in Annex 1 is intended to supplement the conservation objectives only in relation to management of established and ongoing activities and future reporting requirements on monitoring condition of the site and its features. It does not by itself provide a comprehensive basis on which to assess plans and projects, but it does provide a basis to inform the scope and nature of any Habitats Regulations Assessment (HRA) that may be needed. It should be noted that completion of a HRA is a separate activity to condition monitoring, requiring consideration of issues specific to individual plans or projects.

13. REFERENCES

Cooper, A., McCann, T. and Rogers, D. (2009). Northern Ireland Countryside Survey 2007: Broad Habitat Change 1998-2007. Northern Ireland Environment Agency Research and Development Series No.09/06

Cruickshank, M. M. & Tomlinson, R. W. (1988). *Northern Ireland Peatland Survey*. Department of the Environment for Northern Ireland (Countryside and Wildlife Branch). Belfast.

Department of the Environment for Northern Ireland (1993a). Conserving Peatland in Northern Ireland – A Statement of Policy.

Department of the Environment for Northern Ireland (2003). Northern Ireland Habitat Action Plan - Lowland Raised Bog.

European Commission (2000). Managing Natura 2000 Sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.

European Commission (2001). Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.

European Commission (2014). Establishing conservation measures for Natura 2000 Sites.

Joint Nature Conservation Committee (JNCC) (2013). 3rd UK Habitats Directive Report.

Annex 1

SAC Feature – Active raised bog (Status B)

(* = primary attribute. One failure among primary attributes = unfavourable condition)

Attribute	Targets/Limits	Method of Assessment	Comments
* Area of intact surface (ha)	<p>Maintain the extent of intact bog surface at 54.5 ha.</p> <p>The active raised bog communities include predominantly M18 <i>Sphagnum papillosum</i> raised and blanket mire with M1 <i>Sphagnum auriculatum</i>, M2 <i>Sphagnum cuspidatum/recurvum</i> and M3 <i>Eriophorum angustifolium</i> bog pool communities.</p>	<p>Visual estimate in 2x2 plots and across the intact raised bog using a combination of aerial photographs, SIM and Condition Assessment structured walk.</p>	<p>Any loss of the current intact area is unacceptable.</p> <p>The active raised bog communities include M18 <i>Erica tetralix-Sphagnum papillosum</i> raised and blanket mire community and M2, the <i>Sphagnum cuspidatum/recurvum</i> bog pool community dominated by <i>S. cuspidatum</i>.</p>
* Area of actively regenerating cutover bog (ha)	<p>Maintain the current extent of actively regenerating cutover bog. This area should be extended where possible.</p>	<p>Visual estimate in 2x2 plots and across the intact raised bog using a combination of aerial photographs, SIM and Condition Assessment structured walk.</p>	<p>There should be no loss in extent of actively regenerating bog to scrub encroachment or further peat cutting.</p>

* Area of mosaic communities and associated habitats	Maintain associated mosaic communities and habitats.	Visual estimate across the ASSI using a combination of aerial photographs, SIM and Condition Assessment structured walk.	Repeat monitoring using condition assessment, SIM, and aerial photographs should indicate whether mosaics and associated habitats have changed or been lost.
Dwarf-shrub height	Average ericoid height should be 15–35cm.	Visual estimate in 2x2 m plots.	
* Bare Peat (%)	Peat cutting or drainage should not damage the intact surface of the active raised bog. Bare peat should occupy < 5% of the total area of the active raised bog.	Visual estimate in 2x2m plots	
* Pool/hummock system extent and diversity	The extent and diversity of the raised bog pool system must be at least maintained. Permanent pools containing any of the species listed below within a 10 m radius of the plot should be recorded. <i>S. cuspidatum</i> , <i>S. denticulatum</i> <i>S. magellanicum</i> , <i>Drosera, anglica</i> , <i>D. intermedia</i> , <i>Menyanthes trifoliata</i> .	Visual estimate within a 10m radius of plots <u>and</u> across the feature using a combination of aerial photographs and Condition Assessment structured walk.	Pool systems do not always occur on lowland raised bog systems. However, where they do occur, they are a very important micro-topographical feature of bog surface and their extent and condition should be maintained.

<p>* <i>Sphagnum</i> cover/abundance (% cover and frequency)</p> <p>Active Peat Formation (DAFOR)</p>	<p>Ombrotrophic <i>Sphagnum</i> moss species should have a minimum cover of 33% over at least 66% of the intact lowland raised bog surface.</p> <p>Thick, hummock forming species of sphagnum should be at least occasional.</p> <p>Species present should include a mixture of both thin species: - <i>S. capillifolium</i> and <i>S. tenellum</i> and the thick hummock forming species: - <i>S. papillosum</i> and <i>S. magellanicum</i> at least occasional over the surface.</p>	<p>Visual estimate in 2x2m plots.</p> <p>Visual estimate in 2x2m plots.</p>	<p>A constant <i>Sphagnum</i> moss cover is indicative of active peat formation and is dependent on the maintenance of a high water table. <i>Sphagnum</i> moss is therefore used to measure the hydrological integrity of the intact bog surface.</p>
<p>* Ericaceous cover (%) and frequency of <i>Erica tetralix</i> (DAFOR).</p>	<p>Ericoid cover should be maintained between 40% and 60% of the intact bog surface.</p> <p><i>Erica tetralix</i> should be at least present over a minimum 66% of the intact lowland raised bog surface.</p>	<p>Visual estimate in 2x2m plots</p>	<p>A mono-dominant sward of <i>Calluna vulgaris</i> may suggest that the surface of the intact bog is drying out – i.e. the water table is too far below the surface of the bog.</p>
<p>* Graminoid cover (%)</p>	<p>Graminoid cover should be maintained between 10 and 40 %.</p>	<p>Visual estimate in 2x2m plots</p>	

* Frequency and % cover of scrub/tree encroachment on any active peat surface (DAFOR and % cover)	Scrub/tree encroachment should be no more than rare on the intact raised bog surface or in the actively regenerating cutover areas. Mean cover should be less than 2%.	Visual estimate within a 10 m radius of plots and across the active peat surface using aerial photographs and Condition Assessment structured walk.	If scrub/tree species are more than rare on any active peat surface, scrub control should be carried out.
* <i>Rhynchospora alba</i> abundance (% cover)	<i>Rhynchospora alba</i> cover should be less than 10%.	Visual estimate in 2x2m plots	<i>Rhynchospora alba</i> only occurs as a natural component of the bog vegetation around pool systems. A high frequency of this species over the intact surface of the bog may be a consequence of excessive burning.
* <i>Myrica gale</i> abundance (% cover)	<i>Myrica gale</i> cover should be less than 10%.	Visual estimate in 2x2m plots	
* Management - Burning (% cover)	Signs of recent burning should occupy less than 5% of the intact raised bog surface and the actively regenerating cutover areas. Recent burning is represented by areas burnt within the last two years.	Visual estimate in 2x2 m plots <u>and</u> across the active bog surface using a combination of aerial photographs and Condition Assessment structured walk.	

* Management - Grazing (% cover)	Signs of grazing (poaching/dung) should be no more than rare on the intact raised bog surface and the actively regenerating cutover areas. The frequency of droppings, the extent of poaching, uprooting of dwarf shrubs, invasion by <i>Juncus squarrosus</i> etc. and the presence of grazing induced <i>Calluna vulgaris</i> growth forms indicate moderate and heavy grazing.	Visual estimate in 2x2 m plots.	
Indicators of Local Distinctiveness			
* Presence of rare or scarce species specific to the site. <i>Sphagnum austinii</i> <i>Sphagnum fuscum</i> <i>Sphagnum pulchrum</i> <i>Utricularia spp.</i> <i>Andromeda polifolia</i>	Locally distinctive species recorded for the site should be at least present along the length of the Condition Assessment structured walk. If these species are not recorded on any one visit, it does not automatically make the site unfavourable.	Visual estimate.	

Frequency -

1-20% = Rare

21-40% = Occasional

41- 60% = Frequent

> 60% = Constant