

Merthyr Tydfil County Borough Council Local Development Plan (2016 – 2031)

BACKGROUND PAPER REVIEW OF SITES OF IMPORTANCE FOR NATURE CONSERVATION

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Executive Summary

1. This report reviews the existing 59 Sites of Importance for Nature Conservation (SINCs) designations contained within the adopted *Merthyr Tydfil Local Development Plan 2006-2021* and considers proposing additional SINCs in the emerging Merthyr Tydfil Local Development Plan 2016 – 2031.
2. Five new SINCs are proposed as follows:
 - SINC No. 4: Merthyr Common Central;
 - SINC No. 61: Gethin Forest;
 - SINC No. 62: Cefn Forest;
 - SINC No. 63: St. Tydfil Forest (East) and
 - SINC No. 64: St. Tydfil Forest (West).
3. The review of the existing SINCs designated in the adopted LDP, are deemed to meet SINC criteria agreed in *Criteria for the selection of SINCS in the Mid-Valleys Area*. Where appropriate boundaries have been amended where:
 - Development has occurred within the SINC;
 - Clarity is needed along the urban fringe and
 - Land within the SINC no longer meets SINC criteria.
4. All 64 SINCs have been mapped using GIS.

1. Introduction

- 1.1 This report forms part of a series of background papers prepared by Merthyr Tydfil County Borough Council (MTCBC) to inform the Preferred Strategy of the Replacement Local Development Plan (LDP) 2016-2031.
- 1.2 The report assesses five new Sites of Importance for Nature Conservation (SINCs) and reviews the appropriateness of the SINC designations contained within Policy AS6 and BW5 of the adopted *Merthyr Tydfil LDP Plan 2006-2021* (Merthyr Tydfil County Borough Council, 2011).
- 1.3 Planning Policy Wales (PPW) (Welsh Government, 2016) states that non-statutory designations such as SINCs can be designated by Local Planning Authorities (LPAs) in their LDPs to areas of substantive conservation value where there is good reason to believe that normal planning policies cannot provide the necessary protection. Their importance is significant in a more localised context than internationally or nationally designated sites. For this reason they are sometimes referred to as 'second tier sites.'

2 National Policy Context

- 2.1 Chapter 5 of *Planning Policy Wales (PPW) Edition 9* (Welsh Government, 2016), which relates to *Conserving and Improving Natural Heritage and the Coast*, reflects the commitments contained in the Biodiversity Convention, (United Nations, 1992), which was ratified by the United Kingdom, and the duties placed under the Natural Environment and Rural Communities Act (UK Government, 2006).
- 2.2 Paragraph 5.3.11, which relates to non-statutory designations, states that SINCs:
 - Should be soundly based on a formal scientific assessment of the nature conservation, landscape or geological value of the site;
 - Could reflect community values and be informed by community participation;
 - Should be applied to areas of substantive conservation value where there is good reason to believe that normal planning policies cannot provide the necessary protection and
 - Should not unduly restrict development.

2.3 Section 5.4, which relates to development plans and the conservation and improvement of the natural heritage, states that development plans should:

- Set out the locational policy framework for the conservation and enhancement of the natural heritage within the context of a sustainable development strategy;
- Seek to conserve and enhance the natural heritage in ways which bring benefits to local communities and encourage social and economic progress;
- Take into account UKBAP objectives and be consistent with the Local Biodiversity Action Plans (LBAPs) in terms of development of plan policies and
- Provide for ecological connectivity and networks of statutory and non-statutory sites.

2.4 With particular regard to non-statutory designations such as SINC, which carry less weight than statutory designations, paragraph 5.4.4 states that they should be given adequate protection in development plans. However, policies should make it clear that they do not preclude appropriate socio-economic activities. In addition, amongst other things paragraph 5.4.5 states that the development plan should:

- Provide criteria against which a development affecting the different types of designated site will be assessed, reflecting their relative significance;
- Include locally-specific policies for the conservation and
- Clarify how biodiversity will be safeguarded outside statutory designated sites without unduly restricting development that is otherwise appropriate.

3.5 Section 5.5 of *Technical Advice Note 5: Nature and Conservation Planning* (Welsh Assembly Government, 2009), which relates to local sites, states that they have an important role to play in meeting biodiversity targets and contributing to the quality of life and well-being of the community. Paragraph 5.5.2 states that they should:

- Be subject to the application of rigorous criteria to ensure their designation is justified on biological or geological grounds;
- Be subject to a transparent designating and maintaining process, with records and assessments publicly available (unless information about particular species is sensitive in terms of their protection) and

- Enable developers to:
 - Identify how their proposals may affect the interests for which the sites are designated (either positively or negatively) and
 - Where relevant, how the sites contribute to wider ecological networks or mosaics.

3.6 Paragraph 5.5.3 further requires that developers should avoid harm to the interests of locally designated sites where possible. Where this is unavoidable, minimisation or mitigation methods should be used to offset harm that may be caused, to ensure that there is no reduction in the overall nature conservation value of the area, which should be agreed with the LPA and or Local Wildlife Trust.

3 Regional Policy Context

3.1 The *Guidelines for the Selection of Wildlife Sites in South Wales* [referred to as the *South Wales Guidelines*] (The South Wales Wildlife Partnership, 2004) was published by the Gwent Wildlife Trust, as part of a partnership project to develop a common set of guidelines for the selection of Wildlife Sites¹ (and Sites of Importance for Nature Conservation) in the South Wales region. This document was based on *The Criteria for the Selection of Wildlife Sites in Gwent, Glamorgan and Carmarthenshire* (Pryce, 1999), originally compiled by David Clements and Richard Pryceⁱ. The purpose of the guidelines was to provide a framework within which individual local authorities were free to refine their own detailed criteria for the selection and designation of Wildlife Sites within their administrative boundaries. In 2008 the Wales Biodiversity Partnership produced guidelines for the selection of local sites in certain areas of South Wales (Caerphilly County Borough Council, Merthyr Tydfil and Rhondda Cynon Taf County Borough Council, 2008).

4.2 The criteria contained in the document were intended to be used to identify SINC^s and represent the refinements of the *South Wales Guidelines* for a recognisable biodiversity area: the valleys of central South Wales (the “Mid-Valleys area”). The Mid-Valleys area comprises the Unitary Authorities of Blaenau Gwent County Borough Council, Caerphilly County Borough Council, Merthyr Tydfil County Borough Council and Rhondda Cynon Taf County Borough Council, excluding the areas that lie within the Brecon Beacons National Park (BBNP).

¹ Whilst the term ‘Wildlife sites’ is the title preferred by the Wildlife Trusts Partnership, in South Wales such sites are more usually referred to as Sites of Importance for Nature Conservation (SINC^s).

4 Local policy Context

- 4.1 In order to conserve the most locally important places or wildlife, 59 SINC's were identified and designated in the adopted LDP using the rigorous scientific criteria set out by the *Criteria for the selection of Sites of Importance for Nature Conservation in the County Borough Councils of Blaenau Gwent Caerphilly, Merthyr Tydfil and Rhondda-Cynon-Taff (Mid Valleys)* (Caerphilly County Borough Council, Merthyr Tydfil and Rhondda Cynon Taf County Borough Council, 2008).
- 4.2 In order to control development in these areas, the Area Specific Policy AS6 was included in the adopted LDP, as follows:

Policy AS6: Local nature conservation designations

Using published scientific criteria, Sites of Importance for Nature Conservation have been designated as shown on the LDP Proposals Map. Applications for development affecting these sites and/or the Cwm Taf Fechan Local Nature Reserve will not be permitted unless full account has been taken of the relevant features so as to prevent damage to their conservation value. Where appropriate, planning conditions or a planning agreement will be employed to safeguard and / or enhance features, or to provide appropriate mitigation and / or compensatory measures.

- 4.3 Explanation of, and justification for inclusion of the policy was provided by *Sites of Importance for Nature Conservation (SINC) - Summary for Merthyr Tydfil Local Development Plan* (Merthyr Tydfil County Borough Council, 2008) prepared in support of the adopted LDP. The document included a description of the process used to select SINC areas and summary descriptions of each SINC proposed.
- 4.4 In line with national policy, in order to sensitively manage the natural environment for its own sake and to contribute to the quality of life of the people in the area, the Borough Wide Policy BW5 was included in the adopted LDP, as follows:

Policy BW5: Natural heritage

The council will protect and support the enhancement of the County Borough's distinctive natural heritage. Development proposals will only be permitted where they maintain, enhance or do not cause harm to:-

- *The landscape character of the countryside;*
- *National and local nature conservation designations;*
- *Trees, woodlands and hedgerows that have natural heritage value or contribute to the character and amenity of an area; and*
- *Other biodiversity interests including protected and priority species and ecological networks.*

5. Candidate SINC Assessment Methodology

5.1 The 5 new areas were individually assessed and the summary results shown on Table 1, as follows:

- I. Merthyr Common Central: The site consists of a large area of common land situated to the east of Merthyr Tydfil. It has an upland character and comprises a range of habitats, including areas of marshy grassland, acid grassland, wet heath and small ponds. Colliery spoil-heaps form a significant component of the site, particularly to the west. These have mainly re-vegetated with acid grassland. The ponds support a diverse range of aquatic plant species, good dragon fly fauna and great crested newts occur in at least one pond.

This site was originally put forward as a candidate SINC (No 4) in July 2002 (Clements, SINC Criteria for Selection - Draft Schedules for Candidate Sites, 2002), as part of the Ffos-y-Fran open-cast site. It was resurveyed in January 2007 by David Clements (Clements, Merthyr Common Central - Survey & Assessment for SINC Designation, 2007), in order to establish the validity of the proposed SINC and to identify a defensible boundary.

It was excluded from the Deposit LDP as the Ffos-y-Fran Land open-cast coal mining scheme was being implemented and at the time it was known that the majority of the SINC would be lost with the potential for the whole SINC to be lost to development.

However through the development of the scheme a significant part of candidate SINC 4, not required for operations centring on the ponds, has been actively managed for nature conservation indirectly through planning conditions. The Ecological Management Plan for the area within SINC No.4 was approved by letter by MTCBC on 11th January 2010 (essentially securing the protection and management of the area) by which time the LDP had already gone through Deposit Stage and submitted for Examination.

Given that the area is now certain to remain throughout the current planning permission/coal mining, with an agreed period of aftercare; it was reassessed as part of this Review (see section 6) and found to comply with SINC criteria. This site is therefore proposed as SINC No.4, as shown on Map 1.

5.2 Several areas of coniferous woodlands, owned by the then Forestry Commission were surveyed in November 2012, by David Clements Ecology Limited on the instructions of Merthyr Tydfil County Borough Council, to establish whether the following sites were worthy of consideration as a SINC. The methodology used was based on Phase 1 vegetation classification methodology developed by the former Nature Conservancy Council (Nature Conservancy Council, 1990), a nationally-accepted and standard methodology. The site assessments of biodiversity significance of habitats and species were based on a comparison against 2008 criteria:

- II. Gethin Forest – situated between Mynydd Gethin and the A4790, the site is largely upland with semi-upland slopes supporting extensive 'Ffridd' habitat. Clements concluded that the whole site qualifies as a candidate for SINC designation for its mosaic of habitats, which supports a diverse range of flora and fauna (Clements, Gethin Forest - Survey & Assessment for SINC Designation, 2013). This site is therefore proposed as SINC No.61, as shown on Map 2.
- III. Cefn Forest – the site forms part of the semi upland habitat mosaic on the eastern slopes of the Mynydd Merthyr comprising extensive woodland with a good assemblage of ancient woodland indicator species, persisting along woodland margins and rides and dense bracken, acid grassland and dry heathland. The area also accommodated important bird species and other faunal species. Clements (Clements, Cefn Forest - Survey & Assessment for SINC Designation, 2013) proposed a SINC boundary to enclose all of the land areas judged to meet one or other of the SINC designation guidelines. This site is therefore proposed as SINC No.62, as shown on Map 3.
- IV. St. Tydfil Forest (East) – 2 areas, situated to the east of the A470, were identified as meeting SINC criteria in accordance with the 2008 guidelines, both containing large habitat mosaics, including significant woodland coverage. Both areas comprise planted, natural woodlands, large open areas supporting bracken/Fridd habitat and barn owls. The second area also contains cliff faces and rocky areas, marsh and supports blue tailed damselfly. Clements (Clements, St. Tydfil Forest (East) Survey & Assessment for SINC Designation, 2013) proposed a SINC boundary to enclose all of the land areas judged to meet one or other of the SINC designation guidelines. This site is therefore proposed as SINC No.63, as shown on Map 4.

- V. St. Tydfil Forest (West) – the site slopes down from the Mynydd Merthyr in the west towards the A470 to the east bounded also by the Taff Trail. Clements (Clements, St. Tydfil Forest (West) - Survey & Assessment for SINC Designation, 2013) considered the site meets SINC criteria, for its mosaic of extensive conifer woodlands, areas of ancient woodland and semi natural broadleaved woodland which support ancient woodland species in addition to heathland, acid and marshy grassland species and habitat. Parts of the site also support peregrine falcons on quarry cliff faces, and other bird species including common crossbill, common bullfinch, raven, Eurasian woodcock and song thrush. This site is therefore proposed as SINC No.64, as shown on Map 5.

6. SINC Review Methodology

- 6.1 A site survey methodology was created to review each existing SINC Nos. 1 - & 5 – 60 designated in the adopted LDP, included on the 2011 Proposals Map. Since Proposed SINC No. 4 was last surveyed in 2007, this methodology was also used to resurvey this site.
- 6.2 The methodology comprised a SINC Review Survey Sheet (attached, at Appendix 1) and accompanying, Habitat and Indicator Species Tables (attached at Appendix 2 and 3), which were completed for each SINC review. The survey sheet and species indicator tables were based on the Mid Valleys selection Criteria. (Caerphilly County Borough Council, Merthyr Tydfil and Rhondda Cynon Taf County Borough Council, 2008).
- 6.3 The document specifically identifies the habitat and species criteria against which SINC's should be identified, designated and reviewed in the 4 County Borough areas of Blaenau Gwent, Caerphilly, Merthyr Tydfil and Rhondda Cynon Taff. It provides a scientific basis for SINC selection, primarily based upon habitat criteria (H1 – H22). Species criteria are mainly used as contributory or supporting features for SINC's designated for habitats, however the SINC criteria also identify those species, which are sufficiently rare or strongly protected, to warrant SINC designation on their own merit.
- 6.4 Site boundaries have been drawn as far as possible to be meaningful in ecological terms. Where sites have been selected on purely species criteria, appropriate regard has been given to the habitat requirements of the species concerned. Observable boundaries have been used as defensible boundaries where they occur and land forming an effective ecological unit has been included.

Table 1: Summary Assessment – Candidate SINC				
Candidate Sites of Importance for Nature Conservation in MTCB:				
SINC No.	Site Name	Summary description of qualifying criteria	Meets or Exceeds MID Valleys selection SINC Criteria	Decision
4	Merthyr Common Central	Area of upland common land comprising a range of habitats including marshy grassland, acid grassland, wet and dry heath and acid flush. Includes large and small ponds, one of which (Isaac Morgan's Pond) supports a diverse range of aquatic plant species and a good dragonfly fauna. Numerous streams and drainage ditches run through the wetter areas. The area is a small part of a far larger proposed SINC lost as a consequence of coal mining which has remained undisturbed and actively managed (grazed) focussing on ecological issues	H6, H7, H10, H12, H15, H16, H20 & H22.	2007 boundary put forward as SINC but not included due to opencast mining permission over the majority of the area, revised boundary (known not to be required for opencast) in 2016.
61	Gethin Forest	Mosaic of upland and semi upland habitats comprising conifer plantation, semi natural broad leaved, wet and replanted ancient woodland, heathland, acid grassland, water courses, standing open water, flushes and supporting scrub, neutral grassland and fridd. The whole site qualifies as a candidate SINC for its mosaic of habitats, which support a diverse range of flora and fauna.	H1, H3, H6, H7, H9, H12, H15, H16, H18, H20, H21, H22, S1, S2, S4 & S7.	2013 surveyed boundary put forward as SINC.
62	Cefn Forest St.	Mosaic of semi upland habitats comprising extensive conifer plantation, with supporting semi natural broad leaved woodland, acid grassland, fridd and heathland. Includes areas of replanted woodland with a range of semi natural woodland indicators & Conifer woodlands that support remnant heathland/acid grassland mosaics.	H20, H1, H6, H10 & H9.	2013 boundary put forward as SINC.
63	St. Tydfil Forest (East)	Large area of habitat mosaics, which includes significant coverage of woodland, all of which support ancient woodland indicator species as well as heathland and acid grassland throughout. Bird species present include the marsh tit and barn owl.	H20, H1, H3, H4, H9, H10, H18, H21 & S1.	2013 boundary put forward as SINC.
64	St. Tydfil Forest (West)	Meet SINC criteria, for its mosaic of extensive conifer woodlands, areas of ancient woodland and semi natural broad leaved woodlands which support ancient woodland species in addition to heathland, acid and . Parts of the site also support a variety of interesting plants and Peregrine falcons nest on the quarry cliffs.	H1, H2, H3, H4, H7, H9, H10, H12, H18, H20 & H21.	2013 boundary put forward as SINC.

Table 2: Summary Assessment – Existing SINC				
Reviewed Sites of Importance for Nature Conservation in Merthyr Tydfil County Borough: Summary Descriptions				
SINC No	Site Name	Summary Description	Meets or Exceeds MID Valleys selection SINC Criteria	Decision
1	Bryn Morlais/ Morlais Hill	Complex semi-upland area of limestone-influenced habitats, partly derived from old limestone quarries (Morlais Quarries) and screes associated with the former Morlais Castle. Part of the site is currently in use as a golf course. Extensive calcareous grasslands and screes supporting numerous rare and characteristic species, including nationally scarce plants. Also includes areas of neutral grassland and some small areas of acid grassland. Other habitats include limestone outcrops with ledge communities, bracken stands, limestone scrub and a pond.	H3, H4, H5, H6, H7, H9, H16, H20, H21 & H22.	2011 LDP SINC boundary retained.
2	Bryniau	Semi-upland site comprising a complex mosaic of mainly acidic habitats associated with disused quarries (Bryniau Quarries) and spoil tips. Main habitats are acid grasslands with bracken slopes, intermixed with numerous areas of acid flush and marshy grassland. Also present are areas of semi-natural woodland, including wet woodland areas, neutral grassland, ponds and streams, a small reedbed and some small areas of species-rich calcareous grassland on a limestone tip.	H1, H3, H4, H5, H6, H7, H9, H11, H12, H15, H16, H18, H20, H21 & H22.	2011 LDP SINC boundary retained.
3	Blaenmorlais	A large area supporting a mosaic of upland habitats at the western edge of Merthyr Common. Mainly acid grasslands with acidic flushes, grass-heaths, dry heathlands, marshy grasslands, bracken slopes and smaller areas of wet heathland and scrub. The site also contains small disused quarries (Garth Quarries) and acid screes. A section of the Nant Morlais within the site has steep valley sides with rocky outcrops. A large pond in the south of the site supports a regionally rare plant, and several uncommon dragonflies. To the north the site contains an area of limestone spoil tips supporting unimproved upland calcareous grassland, as well as some limestone outcrops and scree.	H3, H9, H5, H6, H7, H9, H10, H12, H15, H16, H18, H20 & H21.	2011 LDP SINC boundary retained.
5	Clyn-mil/ Glynmil	Mosaic of semi-upland ffridd habitats at the western edge of Merthyr Common, partly on old colliery spoil tips. Comprises mainly unimproved and semi-improved acid grasslands, with smaller areas of marshy grassland, acid flush, dry acidic heath, bracken slopes and scrub. Also includes an area of ancient semi-natural oak woodland, and numerous smaller areas of wet woodland. Localised purple moor-grass pastures, with areas of acid flush and unimproved acid grassland, are present. Several ponds and numerous small streams run through the wooded areas.	H1, H3, H6, H7, H10, H12, H15, H16, H18, H20, H21, H22.	2011 LDP SINC boundary retained.

6	Cwm Golau	Small semi-upland valley system alongside the course of the Nant Gyrawd on the eastern side of Merthyr Common. Comprises mainly valley side marshy grasslands, with unimproved and semi-improved acid grasslands and small areas of wet heathland. Some small areas of semi-improved neutral grassland, sedge swamp, dry heath, scattered scrub, acid flush and bracken slopes. Lower sections of the Nant Gyrawd are wooded. Small areas of colliery spoil are present; these have mainly re-vegetated with acid grassland and contain several ponds which have a moderate and stable population of Great Crested Newt.	H1, H3, H4, H6, H7, H9, H10, H11, H12, H15, H16, H20, H21	2011 LDP SINC boundary retained.
7	Cwm Ffrwd	Valley habitats along the Nant Ffrwd, a large stream draining from the uplands in a largely unmodified course, passing through narrow gorges in places. The woodlands have a rich ground flora supporting many ancient woodland indicator species. Regionally rare plant species frequent the steep woodlands, several nationally scarce bryophytes and lichens have also been recorded.	H1, H6, H7, H9, H10, H12, H20, H21	2011 LDP SINC boundary retained.
8	Bryn-ddu & Ty'n-y-Coedcae	Extensive upland moorland area of mainly marshy grasslands with wet heathlands and smaller areas of blanket bog, acid flush, valley fen, and acid grassland, forming a mosaic. The acid grasslands are mainly unimproved, with smaller areas of semi-improved acid grassland in the east. Valley fen is a very scarce habitat in the County Borough. Several uncommon dragonflies have been recorded.	H6, H7, H10, H11, H12, H15, H20	2011 LDP SINC boundary slightly amended
9	Gorllewin Winchfawr/ Winchfawr West	Very extensive area of mostly upland habitats, comprising a complex mosaic of moorland and fridd habitats on the eastern slopes of the Bryn y Gwyddel/Bryn y Badell/Mynydd Aberdar hill system. The wet and dry heathlands are of particular note; these are partly developed on old colliery spoil tips and are the most extensive heathlands in the County Borough. Other habitats of note include marshy grasslands and unimproved acid grasslands, acid flushes and grass-heaths. Outlying areas support semi-improved acid and neutral grasslands and scrub. Numerous ponds are present supporting a small population of Great Crested Newts, along with small streams and some sections of outcropping sandstone. Extremely diverse series of habitats supporting many species of interest.	H3, H4, H6, H7, H10, H12, H15, H16, H18, H20.	2011 LDP SINC boundary retained.
10	Scwrfawr/ (Gellideg North Fields)	Series of fields containing species-rich rhes pastures, acid grasslands, marshy grasslands, neutral grasslands and areas of bracken, together with scattered mature trees and sections of dry acid oak woodland and wet alder woodland alongside a small stream. The grasslands support a wide range of regionally scarce insect species.	H1, H4, H6, H7, H9, H10, H15, H18 & H20.	2011 LDP SINC boundary retained.
11	Dwyrain Winchfawr/ Winchfawr East	Semi-upland area of spoil mounds supporting a mosaic of dry heathland and acid grassland, along with marshy grassland and acid flushes in depressions and areas of neutral grassland. The eastern part of the site supports areas of species-rich marshy grassland and wet heath, along with a series of ponds along a small stream and areas of scrub.	H3, H4, H6, H7, H10, H11, H12, H16, H18 & H20.	2011 LDP SINC boundary retained.

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12	Cwm Glo a Glyndyrus	The SINC contains the Cwm-Glo a Glyndyrus SSSI which is of international significance for grassland fungi. Extensive areas of marshy grassland, species rich neutral grassland and acid grassland alongside woodland and heath supporting an impressive variety of protected, rare and uncommon species including marsh fritillary butterfly (<i>Euphydryas aurinia</i>), Great Crested Newt (<i>Triturus cristatus</i>), big blue pinkgill (<i>Entoloma bloxamii</i>) and olive earhtonge (<i>Microglossum olivaceum</i>).		2011 LDP SINC boundary slightly amended.
13	Maes Cwm Taf & Tip Cefn Coed/ Cwm Taf Fields& Cefn Coed Tip	Linear series of fields between the Afon Taf Fawr and the A470, also containing areas of semi-natural woodland and a re-vegetated limestone slag tip from the former Cyfarthfa Ironworks as well as smaller areas of semi-improved acid grassland, scrub, bracken slopes and dry heathland. The fields are a mosaic of damp and dry neutral grasslands with species-rich areas. The woodlands are variable in character, including areas of wet willow woodland, acid oak woodland and some base-rich ash woodland near the calcareous tip. The thin soils on the tip plateau support a unique type of calcareous grassland.	H1, H3, H4, H5, H6, H9, H10, H18, H20 & H22.	2011 LDP SINC boundary slightly amended.
14	Cilsanws	Semi-upland site comprising a complex mosaic of mainly acidic habitats associated with disused quarries and spoil tips. Main habitats are acid grasslands with bracken slopes intermixed with numerous areas of acid flush and marshy grassland. Also present are areas of semi-natural woodland, including wet woodland areas, neutral grassland, ponds and streams, a small reedbed and some small areas of species-rich calcareous grassland on a limestone tip.	H1, H3, H4, H5, H6, H7, H9, H11, H16, H18, H20, H21 & H22.	2011 LDP SINC boundary retained.
15	Taf Fechan	The SINC contains Cwm Taf Fechan SSSI. The limestone geology gives rise to limestone woodlands, species-rich calcareous grasslands, species-rich neutral grasslands and calcareous scrub. Many species of interest have been recorded from the woodlands which are the designated feature of the SSSI. The neutral and calcareous grasslands of the valley slopes and bottom are typically species-rich. Otter ranges along the Afon Taf Fechan, which also supports a range of native fish species including salmon. Nationally rare and scarce invertebrate and bryophyte species have been recorded from the SSSI.	H1, H3, H4, H5, H9, H10, H12, H15, H20, H21, H22	2011 LDP SINC boundary retained.
16	Taf Fawr	Section of major river tributary of the Afon Taf. The river extends into Brecon Beacons National Park to the north. Includes adjacent woodlands, which are relatively undisturbed in the upper reaches and more urban in character further downstream. The upper reaches in particular are of high ecological value, comprising limestone gorge woodland with a rich ground flora. Numerous rare plant species occur here. Further south the riverside woodland is more acid in character, but nevertheless supports a relatively diverse ground. The site also includes some adjacent areas of species-rich calcareous, neutral and acid grasslands. The calcareous grasslands in particular support numerous species which are scarce in the County Borough. Otter ranges along the Afon Taf Fechan, which also supports a range of native fish species		To be surveyed Summer 2017.

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		including salmon.		
17	Y Graig	Area of fridd habitats dominated by bracken with patches of unimproved acid grassland and dry heathland, particularly around gritstone outcrops. An area of species-rich damp neutral and marshy grassland to the west and some wet willow woodland exists to the south. Other habitats include scrub and boulder scree. Associated with the habitats of Cwm Taf Fechan SSSI/SINC to the north, but separated from these by the A465 Heads of the Valleys Road. Regionally rare plant species frequent the woodlands. The damp neutral and marshy grasslands support the regionally scarce plants.		To be surveyed Summer 2017.
18	Cyfarthfa Park/ Parc Cyfarthfa	Part of an area of mainly ornamental parkland within Merthyr Tydfil. The SINC includes semi-natural woodland and several enclosures of neutral grassland in the eastern half of the park. Also includes small areas of plantation woodland and scrub and several woodland ponds.	H1, H3, H4 & H16.	2011 LDP SINC boundary retained.
19	Coed Gyrnos/ Gyrnos Woods	Small area of wet woodland and an adjacent field supporting marshy grassland, acid grassland and bracken stands immediately to the north of the Heads of the Valleys Road. There are also some gritstone outcrops and scattered mature trees. The regionally scarce climbing corydalis is present in the bracken stands.	H1, H6, H7, H9, H20, H21	2011 LDP SINC boundary retained.
20	Maes Abercanaid/ Abercanaid Fields	Series of fields laying either side of the A470 containing mainly species-rich semi-improved grasslands and marshy grasslands. Also some small areas of semi-natural oak/birch woodland, scattered scrub and trees. Site also includes Webber's pond, a private nature reserve with well-developed marginal emergent vegetation, a section of the Glamorganshire Canal and an adjacent disused railway embankment which supports unimproved and semi-improved acid grassland, bracken slopes and trees.	H1, H3, H4, H6, H7, H9, H10, H15, H16, H18 & H20.	2011 LDP SINC boundary retained.
21	Maes Pentrebach/ Pentrebach Fields	Linear series of species-rich semi-improved neutral grassland fields alongside disused railway embankment. The short-grazed grasslands are dominated by fine-leaved grasses and support abundant mesotrophic herbs. Site also contains scattered dense scrub and bracken slopes. An area of dry heathland dominated by ling heather is present in the north of the site, occurring in a mosaic with acid grassland.	H3, H4, H6, H9, H10 & H20.	2011 LDP SINC boundary retained.
22	Tip Nantyrodyn/ Nantyrodyn Tip	Large area of re-vegetated colliery spoil and ffridd. Mainly semi-upland acid grasslands, dry heathland and bracken slopes, with areas of marshy grassland, semi-natural woodland and scrub. Also contains small areas of bare ground, semi-improved neutral grasslands, small streams and outcrops. Regionally rare and scarce insect species are present on the tip.	H1, H3, H4, H6, H7, H9, H10, H15, H18, H20, H21 & H22.	2011 LDP SINC boundary retained.
23	Troed-y-Rhiw	Large area of ffridd. Mainly dry heathland and bracken slopes with scattered trees, with semi-improved acid grassland to the north. Also some small areas of semi-natural woodland, semi-improved neutral grassland, marshy grassland, scrub and ephemeral/short-perennial vegetation. Two large old quarries in the south of the site,	H1, H3, H4, H6, H9 & H20.	2011 LDP SINC boundary retained.

		and outcrops with ledge communities. A small wooded pond is present and several drainage ditches cross the site.		
24	Comin de Merthyr/ Merthyr Common South	Large upland/semi-upland common along hill ridge between two major rivers. Comprises extensive unimproved and semi-improved acid grasslands, dry heathlands and bracken slopes, together with acid flushes, marshy grasslands, wet heathlands, grass-heath and gorse scrub, forming a complex mosaic. Includes numerous ponds and streams (including a section of the Nant Bargoed, extensive outcrops of rock and some disused quarries. Parts of the site are situated on old colliery spoil; these have largely re-vegetated with acid grasslands and heathlands, but calcareous influences also occur locally.	H1, H3, H6, H7, H10, H18, H20, H21 & H22	2011 LDP SINC boundary retained.
25	Cwm Bargod	Very large and diverse system of semi-upland ffridd and valley-bottom habitats associated with the Afon Bargod Taf, a section of which flows through the site. Complex mosaic of semi-natural habitats including ancient semi-natural woodland, bracken slopes with scattered trees and scrub, marshy grassland, wet and dry heathland, acid grassland, swamp and acid flush. A very diverse and interesting set of habitats, probably exceeding SSSI designation criteria. Many nationally scarce plant species have been recorded. Several scarce dragonfly, butterfly and moth species have been recorded. Otter ranges along the Bargod Taf, and brown hare has also been recorded. The site is also important for a broad range of birds.	H1, H3, H4, H6, H7, H9, H10, H11, H12, H15, H16, H20, H22	2011 LDP SINC boundary retained.
26	Buarth-Waunydd	Series of semi-upland ffridd fields containing a mosaic of several locally important habitats, notably acid and marshy grasslands, wet heaths, acid flushes, bracken slopes and semi-natural broadleaved woodlands. There are also areas of neutral grassland and scrub.	H1, H3, H4, H6, H7, H9, H10, H12, H15, H18, H20 & H22.	2011 LDP SINC boundary retained.
27	Cnwc	Semi-upland ffridd slopes supporting mainly bracken and an upland mountain top with areas of acid grassland and dry heathland. Wetter soils on the lower slopes support mosaics of marshy grassland, acidic flush and wet heat; wooded valleys with small areas of ancient woodland, and scattered mature trees on the bracken slopes. Two small disused reservoirs are present near the hilltop, one of which supports a regionally scarce plant.	H1, H4, H6, H7, H9, H10, H12, H15, H16, H20 H21 & H22.	2011 LDP SINC boundary retained.
28	Mynydd Merthyr	Large area of semi-upland ffridd and upland moorland habitat mostly developed on old colliery spoil. Chiefly dry acid grasslands on the upper slopes with several areas of inundation vegetation on tip plateaux and areas of bracken and marshy grassland. A small area of bilberry heath is also present.	H1, H3, H4, H6, H7, H9, H10, H12, H15, H18, H20 & H22.	2011 LDP SINC boundary retained.
29	Camlas Morgannwg/ Glamorganshire Cana	Ancient semi-natural woodlands on the valley sides adjacent to the course of the former Glamorganshire Canal, which now forms part of the Taff Trail. Some of the woodlands have ground flora with numerous ancient woodland indicator species. Two long-established pastures supporting acid grassland are present in the south of the site. Also includes small areas of semi-improved neutral grassland, bracken	H1, H3, H4, H6, H9, H16	2011 LDP SINC boundary retained.

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		patches and scrub, as well as ditches, streams and a wooded pond. The site is important for a range of woodland birds		
30	Graig Gethin	Wooded ffridd slopes, supporting extensive ancient semi-natural woodland and bracken slopes with large trees, together with some scree areas supporting lichen heath. The bracken slopes support abundant bluebell. Also includes an area of wet heathland which extends along a ride within a conifer plantation and supports plant species of interest. The site supports a good range of breeding bird species and brown hare has also been recorded.	H1, H4, H6, H9, H10, H15, H20, H21, H22	2011 LDP SINC boundary retained.
31	Cwm Fedw	Large area of grassland and wet woodland on ffridd slopes beside the course of the Nant-y-Fedw and running down into Cwm Bargod. Mainly semi-improved acid grasslands on the upper slopes, with semi-improved neutral grasslands and marshy grasslands on the lower slopes. The marshy grasslands are mainly rush-pastures, with a small area of fen-meadow also present. There is ancient semi-natural woodland along the course of the Nant-y-Fedw. The site also contains bracken slopes, acid flushes and small areas of both wet and dry heathland.		To be surveyed Summer 2017.
32	Comin Mynydd-y-Capel/ Mynydd -y-Capel Common	Area of upland common land and ffridd occupying part of the hilltop between the Taf and Bargoed Taf valleys. Supports a mosaic of habitats characteristic of dry acid soils, particularly unimproved and semi-improved acid grasslands, with bracken slopes and small areas of heathland gorse scrub. There are numerous outcrops of acidic rock and small disused quarries.	H1, H3, H4, H6, H9, H10, H20 & H21.	2011 LDP SINC boundary retained.
33	Cwmfelin	Two parcels of land, comprising ffridd habitats above the Afon Bargod Taf. Mainly acid grasslands and mature broadleaved woodlands, with smaller areas of marshy grassland, dry heathland, grass-heath, acid flush and bracken. The woodlands include some wet woodland and an area of ancient woodland. Marshy grasslands, acid flushes and some of the acid grasslands are unimproved in character.		To be surveyed Summer 2017.
34	Aberfan Gorllewin /West Aberfan	Two parcels of land situated on the lower slopes of the Taff valley between Aberfan and the A470. The southern areas of the site support a mosaic of damp neutral grasslands, semi-natural broadleaved woodlands along minor streams and bracken stands. The woodlands include areas of wet woodland)and drier areas. The neutral grasslands are generally species-rich and include both unimproved and semi-improved areas. The northern portion of the site consists of a colliery spoil substrate that has revegetated with a mosaic of neutral grasslands and mixed-species scrub.	H1, H3, H4, H9, H15, H18, H20	2011 LDP SINC boundary retained.
35	Blaencanaid	Series of species-rich semi-improved neutral grassland enclosures surrounded by a large conifer plantation. Also contains small areas of acid and marshy grassland and some scattered scrub and hedges.		To be surveyed Summer 2017.
36	Rhydycar Gorllewin/ Rhydycar West	Very extensive mosaic of ffridd enclosures supporting complex of semi-upland and lowland habitats, partly contained within conifer plantation. Main components are ancient semi-natural woodland fragments, other semi-natural woodlands, wet		To be surveyed Summer 2017.

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		heathland, dry heathland, marshy grassland and semi-improved neutral grasslands. Also there are some bracken slopes, scrub, small ponds, streams and sections of dismantled railway. There are areas of semi-improved acid grasslands to the south especially. The habitats intergrade to form a complex mosaic, and may therefore also include some small areas of improved or low diversity semi-improved grassland, but any such areas are a very minor component. Great crested newt occurs in small pools; noctule and pipstrelle bats have both been recorded. Nationally rare and scarce invertebrates are varied and common throughout the area.		
37	Coed Cwm/ Cwm Woods	Area of ancient semi-natural woodland within a much larger conifer plantation. The grassy field layer has locally abundant bluebell. Also includes some associated areas of bracken, dry heathland, scrub, marshy grassland and acid grassland. A range of localised bird and moth species have also been recorded.		To be surveyed Summer 2017.
38	Tyle Haidd	Valley slopes above the Afon Taf Fechan on limestone geology with screes and a disused quarry (Tyle Haidd). Supports unimproved, species-rich, semi-upland calcareous grassland of high biodiversity value, along with calcareous ledge and crevice communities, calcareous scrub woodland, bracken stands and small areas of acid grassland.	H3, H5, H6, H9, H20, H21 7 H22.	2011 LDP SINC boundary retained.
39	Comin Gogledd Merthyr/ Merthyr Common North	Very extensive area of upland common land supporting a mosaic of both wet and dry moorland habitats. These include extensive areas of unimproved acid grassland, marshy grassland, dry heathland and grass-heath, together with areas of wet heath, acid flush, bracken stands, scree and exposed gritstone bedrock. Tracts of modified blanket bog occur on the highest ground in the north-east of the site; these are often wet with abundant bog-mosses, although sometimes drier where drainage channels have been cut. Numerous small ponds and streams are present, including the headwaters of the Nant Morlais. Several ponds support floating bur-reed, a rare species in Glamorgan. In the north-west of the site, in contrast, there are areas of outcropping limestone, scree and extensive disused quarries (Twynau Gwynion) supporting calcicole grassland and ledge communities of very restricted occurrence in the County Borough. These areas are characteristically species rich, and support many regionally rare and scarce species. Numerous other localised plant species also occur in these habitats.	H5, H6, H7, H9, H10, H12, H15, H16, H18, H20 & H21	2011 LDP SINC boundary retained.
40	Comin Gelligaer/ Gelligaer Common	A very extensive upland common that continues within the neighbouring authority of Caerphilly County Borough. Comprises mainly acid grassland and grass-heath with areas of dry heath and bracken slopes with scattered trees to the south and west. There are also scattered marshy grasslands, species-rich acid flushes and areas of western gorse scrub. Also included are some adjacent fields supporting species-rich neutral and acid grassland and small remnants of mature oak woodland. Several		To be surveyed Summer 2017.

		ponds and small streams are also present. The site supports numerous localised plant species, with a regionally scarce plant occurring in the acid grasslands.		
41	Nant Llwynog	Semi-upland ancient semi-natural woodland with bracken slopes and peripheral areas of dry semi-improved acid grassland and damp semi-improved neutral grassland on valleysides above the Nant Llwynog. The site supports a range of breeding woodland birds.	H1, H4, H6, H9	2011 LDP SINC boundary retained.
42	Coed-y-Hendre	Upland ancient semi-natural woodland, together with bracken slopes and areas of unimproved and semi-improved acid grassland. There is also a disused quarry (Coed Hendre Quarry) supporting heathland ledge and an old spoil tip supporting semi-improved acid grassland. The woodland supports a range of breeding birds.	H1, H6, H9, H10, H15, H16, H18, H20, H21	2011 LDP SINC boundary retained.
43	Craig-yr-efail	Semi-upland ffridd and hill top supporting mainly dry (heath, with bracken predominating on lower slopes. Also some replanted ancient semi-natural woodland, wet woodland, acid grassland, sandstone outcrops and quarries with associated screes.	H1, H6, H9, H10, H15, H21.	2011 LDP SINC boundary retained.
44	Tarren-y-Gigfran	Semi-upland valleyside slopes above the A470, including a large disused quarry with screes and outcrops, supporting dry heathland, bracken slopes and semi-improved acid grassland. Also includes numerous areas of semi-natural woodland, including ancient semi-natural woodland and wet woodland along the course of small streams. A second, smaller parcel of land to the west of the main part of the site comprises a hilltop heathland. The site is partially enclosed by conifer plantation.	H1, H6, H9, H10, H15, H20, H21, H22.	2011 LDP SINC boundary retained.
45	Ynysowen/ Merthyr Vale	Complex mosaic of ffridd habitats above the Afon Taf. These comprise mainly semi-natural woodlands, acid grasslands, dry heathlands and bracken slopes. Other habitats include dense and scattered scrub, marshy grassland and neutral grassland. There is also a large disused quarry with associated spoil tips which have re-vegetated with heathland. In the north of the site is a large regraded colliery spoil tip supporting acid grassland with several species of interest.	H1, H4, H6, H7, H9, H10, H15, H18, H20, H21 & H22	2011 LDP SINC boundary retained
46	Cwm Cothi	Large area of semi-natural broadleaved woodland, much of it ancient semi-natural woodland on the valley bottom and valleysides of Cwm Cothi. Site also includes wet heathlands, marshy grasslands and bracken slopes, as well as smaller areas of neutral grassland, acid grassland and acid flushes, and some small disused quarries and revegetated colliery spoil. The marshy habitats support numerous species of interest.	H1, H3, H4, H6, H7, H9, H10, H12, H15, H20, H21	2011 LDP SINC boundary retained.
47	Parc Treharris/ Treharris Park	Semi-natural broadleaved woodlands on valley slopes above the Afon Taf, including areas of ancient woodland and replanted ancient woodland. Also includes some open fridd areas with rocky outcrops, supporting a mosaic of bracken stands and dry heathlands. The site also includes small areas of acid and neutral grassland, scrub and several disused quarries. Ancient woodland indicator plants grow in the richer woodland areas. The fridd areas support a strong population of reptiles and the woodlands are important for a range of breeding birds.	H1, H3, H4, H6, H9, H10, H15, H20, H21	2011 LDP SINC boundary retained.

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48	Coed Edwardsville/ Edwardsville Woods	Steep valley sides along the sharply meandering lower section of the Afon Taf, mainly supporting ancient semi-natural woodlands. Also includes some adjacent areas of neutral and acid grasslands, scrub, bracken and grass-heath. The damp woods have a particularly rich ground flora with the dry woods having a much sparser ground flora, but supporting abundant bluebell. A wide range of bird species have been recorded from the woodlands. The grasslands and bracken in the north of the site are important for reptiles.	H1, H3, H4, H6, H9, H10, H15, H20, H21, H22	2011 LDP SINC boundary retained.
49	Mynydd Goetre-Coed	Hill-top area of dry heathland, acid grassland, grass-heath and bracken stands. Also some disused quarries and associated scree with scattered scrub and young trees. Includes a large area of colliery spoil to the north supporting mainly species-rich neutral grassland communities.	H4, H6, H9, H10, H18, H20, H21 & H22.	2011 LDP SINC boundary retained.
50	Comin Craig-Evan-Leyshon (Whitehall Golf Course)	Mainly bracken slopes but with areas of dry heathland, acid grassland, semi-natural woodland (along the course of an old railway line) and disused quarries, forming a mosaic of habitats. (An extension of the much larger Craig-Evan Leyshon Common SINC in the neighbouring authority of Rhondda Cynon Taff County Borough).	H1, H3, H6, H9, H10, H18, H20, H21 & H22.	2011 LDP SINC boundary retained.
51	Cwm Mafon	Area of wet woodland along the course of the Nant Mafon, including some adjacent areas of marshy grassland and damp neutral grassland. Also includes some bracken stands and scrub. The stream has many natural physical features and a number of large mature trees along its banks. The wet woodland supports a rich ground flora. This is a transboundary SINC site, continuing into adjacent marshy grassland habitats in the neighbouring authority of Caerphilly County Borough.	H1, H3, H4, H7, H9, H15, H20	2011 LDP SINC boundary retained.
52	Craig Berthlwyd	Area of valley side slope in an urban setting supporting a mosaic of dry heathland, acid grassland, bracken and broadleaved woodland. Also includes some rocky outcrops, old quarries and associated clitter scree. The acid grasslands are mostly unimproved	H1, H6, H9, H10, H20, H21, H22	2011 LDP SINC boundary retained.
53	Goetre Coed	Remnant area of ancient semi-natural woodland and associated bracken slopes with scattered mature trees. There are also some small areas of dry heathland associated with old quarries. The woodland is acidic in character, with a generally sparse ground. Large outcrops of native gritstone rock are a feature of the woodlands. The old quarries and other exposed rocks support heathland.	H1, H6, H9, H10, H20, H21	2011 LDP SINC boundary retained.
54	Cwm Bargod/ Lower Cwm Bargod	Large and diverse site on valley sides above the Afon Bargod Taf, comprising semi-natural woodland, including a large area of ancient woodland, bracken slopes, small areas of heathland, and an old colliery spoil tip supporting acid grassland. Other habitats present include small areas of neutral grassland, marshy grassland, scrub and some gritstone outcrops. Also includes a section of the Afon Bargod Taf, along with some adjacent reed beds and two lakes that form part of the Parc Taf Bargod. The spoil heap supports a diverse range of plants. Climbing corydalis occurs in the bracken slopes.	H1, H3, H4, H6, H7, H9, H11, H15, H16, H18, H20, H21, H22	2011 LDP SINC boundary retained.

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55	Trelewis	Small remnant of ancient semi-natural woodland. Also includes small areas of acid grassland and marshy grassland in clearings and at the woodland borders. The marshy grasslands are species-rich and support species of interest.	H1, H6, H7, H20	2011 LDP SINC boundary retained.
56	Nant Caiach	Stream course which is semi-upland in character at its source and progressively becomes a large lowland stream towards its confluence with the Afon Taf Bargod. The stream follows an unmodified course and includes natural physical features such as meanders, small waterfalls, pools and riffles. The lower reaches pass through remnant areas of ancient semi-natural woodland as well as wet woodland pockets. Upstream sections pass through agricultural land, and include some adjacent areas of semi-improved neutral grassland as well as scattered mature broad-leaved trees alongside the stream. There are also small areas of marshy grassland, scrub and bracken.	H1, H3, H4, H7, H9, H15	2011 LDP SINC boundary amended.
57	Berthlwyd	Valley side slopes above the Afon Bargoed Taf, supporting semi-natural woodland, semi-improved neutral grassland and stands. Also includes small areas of acid grassland and scrub and a small disused quarry. Much of the grassland is flowery and species-rich and supports species of interest. Small pockets of acid grassland are also present with regionally scarce species also occurring on the site.	H1, H3, H4, H6, H9, H20	2011 LDP SINC boundary retained.
58	Afon Taf	The major river in the County Borough. Includes areas of bankside habitats, particularly towards the south where the river corridor is less industrialised than further north. Associated habitats are chiefly semi-natural woodland, including areas of ancient semi-natural woodland and linear wet woodlands. There are also numerous neutral grasslands, scrub patches and bracken stands, as well as small areas of marshy grassland and tall herb vegetation. Notable features of the river course include cobble banks which support localised plants. Otter occurs throughout the length of the river which is known to be of value to a wide variety of birds, fish, bats and reptiles.	H1, H3, H4, H7, H9, H15, H16, H22	2011 LDP SINC boundary retained.
59	Afon Bargod Taf	Major river system flowing through the eastern part of the County Borough. The river passes through former industrial areas in its lower reaches, and includes some sections that have been canalised. The upstream reaches, in contrast, are bordered by woodland and agricultural land. The SINC covers all sections of the Bargod Taf which do not fall in other SINC's along the route, comprising three discrete sections. Includes adjacent bankside habitats, particularly semi-natural woodland along with semi-improved neutral and acid grasslands, bracken stands and swamp. Large mature trees are frequent along the banks, and these may support roosting bats. Otter occurs throughout the length of the river which is known to be of value to a wide variety of birds, fish, bats and reptiles.	H1, H4, H6, H9, H11, H15, H18	2011 LDP SINC boundary retained.

60	Coed Meirig	Small group of horse-grazed fields supporting a mosaic of marshy grassland and semi-improved acid grassland. The marshy areas are mostly species-rich with bordering rush pastures. An area of fen meadow in the east of the site supports the regionally scarce plants. There are also small areas of species-rich neutral grassland and bramble scrub. Mature broadleaved trees are present along field boundaries and several small streams cross the site.	H1, H3, H4, H6, H7, H15, H20, H22	2011 LDP SIN boundary amended.
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Map 1: Proposed SINC No. 4 Merthyr Common Central



Cynllun Datblygu Lleol Merthyr Tudful 2016-2031 Merthyr Tydfil Local Development Plan 2016-2031

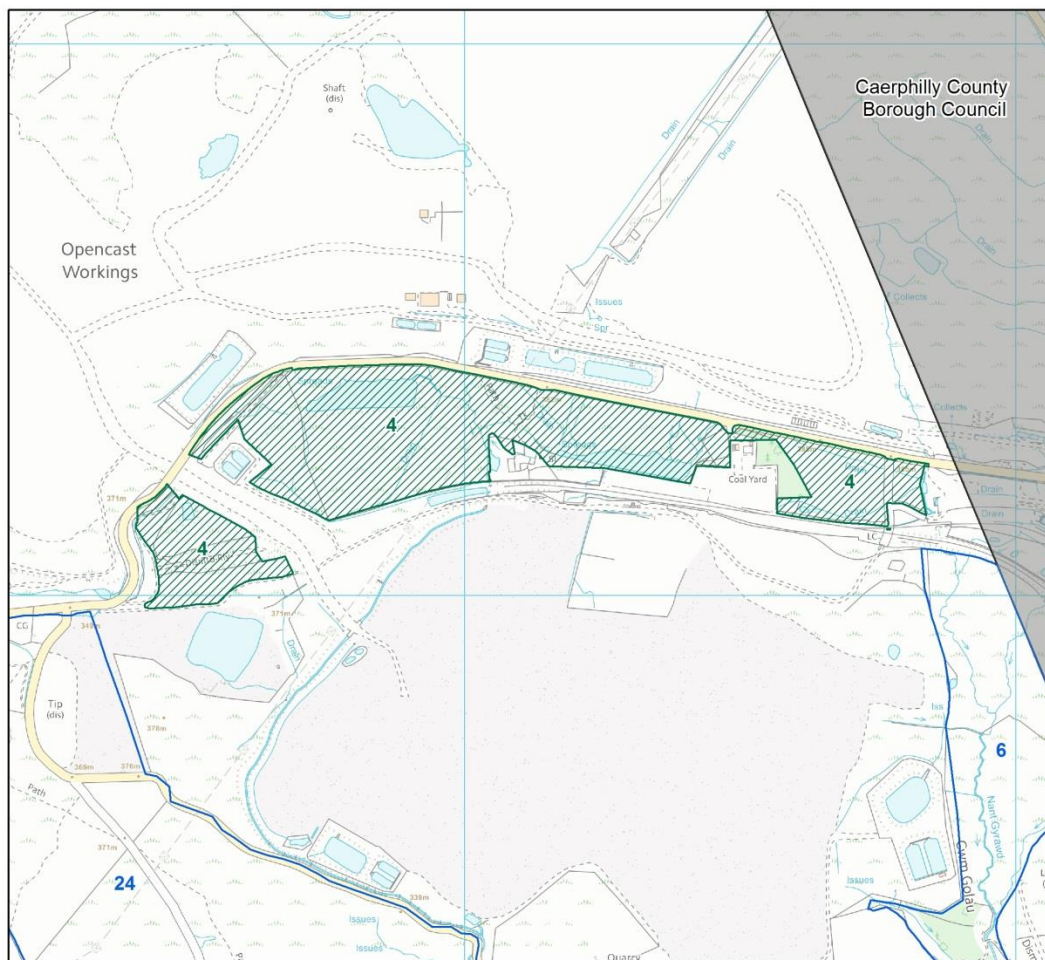
Safle o Bwysigrwydd i Gadwraeth Natur (SBN) /
Site of Importance for Nature Conservation (SINC) Number: 4

Enw'r Safle / Site name: Merthyr Common Central

Ward / Ward: Town

Dwyreiniad / Easting: 307938 Gogleddiad / Northing: 206304

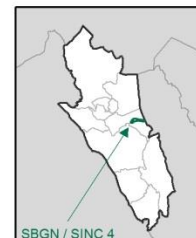
Maint y Safle (Ha) / Site Size (Ha): 22.28



Ffin SBN arfaethedig /
Proposed SINC boundary

Ffin SBN cyfagos /
Neighbouring SINC boundary

Ffin Cynghor Bwrdeistref Sirol Merthyr Tudful /
Merthyr Tydfil County Borough Council boundary



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werthu y data yma i unrhyw drydydd barti mewn unrhyw ffurf"

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Map 2: Proposed SINC No. 61 Gethin Forest



Cynllun Datblygu Lleol Merthyr Tudful 2016-2031 Merthyr Tydfil Local Development Plan 2016-2031

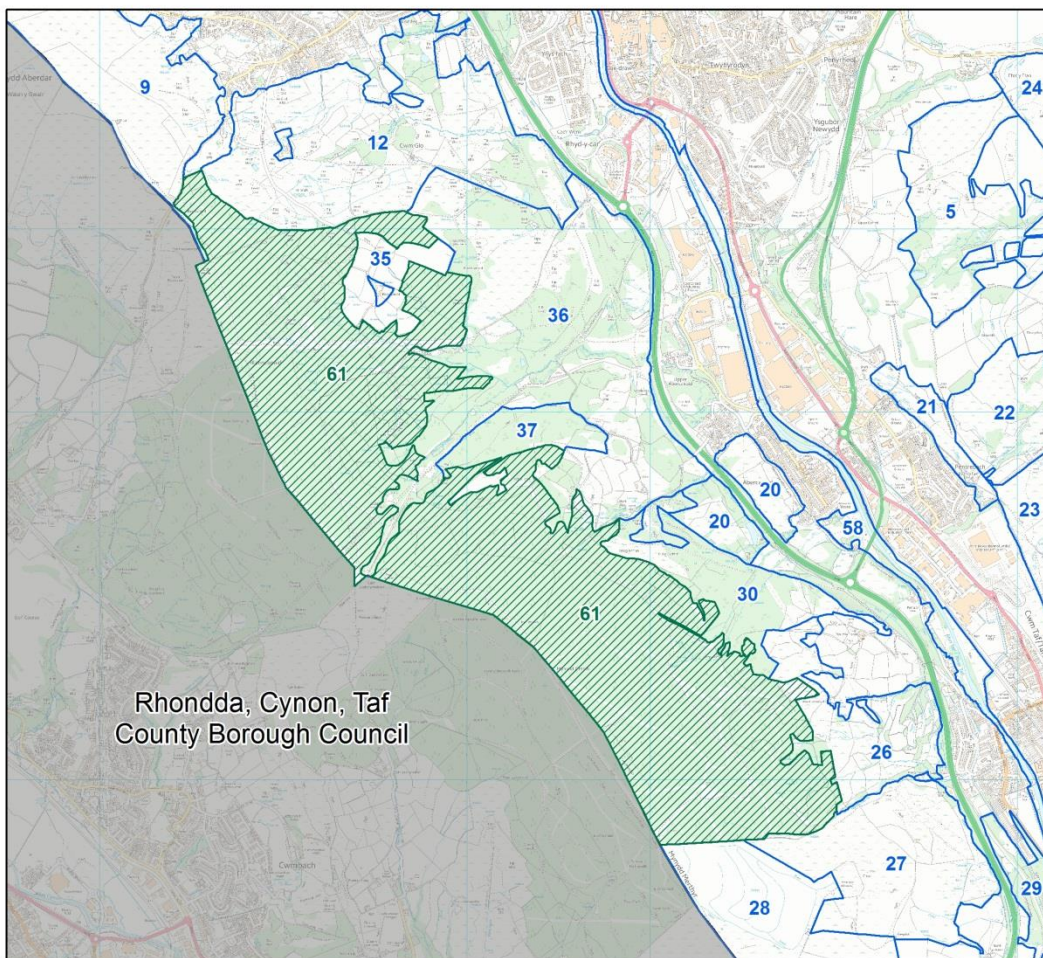
Safle o Bwysigrwydd i Gadwraeth Natur (SBGN) /
Site of Importance for Nature Conservation (SINC) Number: 61

Enw'r Safle / Site name: Gethin Forest

Ward / Ward: Plymouth

Dwyreiniad / Easting: 303843 Gogleddiad / Northing: 203352

Maint y Safle (Ha) / Site Size (Ha): 390.7



0 500 1,000 1,500
Metrau / Metres



Ffin SBGN arfaethedig /
Proposed SINC boundary

Ffin SBGN cyfagos /
Neighbouring SINC boundary

Ffin Cynllun Datblygu Lleol Merthyr Tudful /
Merthyr Tydfil County Borough Council boundary



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werthu y data yma i unrhyw drydydd barti mewn unrhyw ffurf"

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Map 3: Proposed SINC No. 62 Cefn Forest



Cynllun Datblygu Lleol Merthyr Tudful 2016-2031 Merthyr Tydfil Local Development Plan 2016-2031

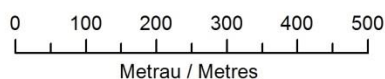
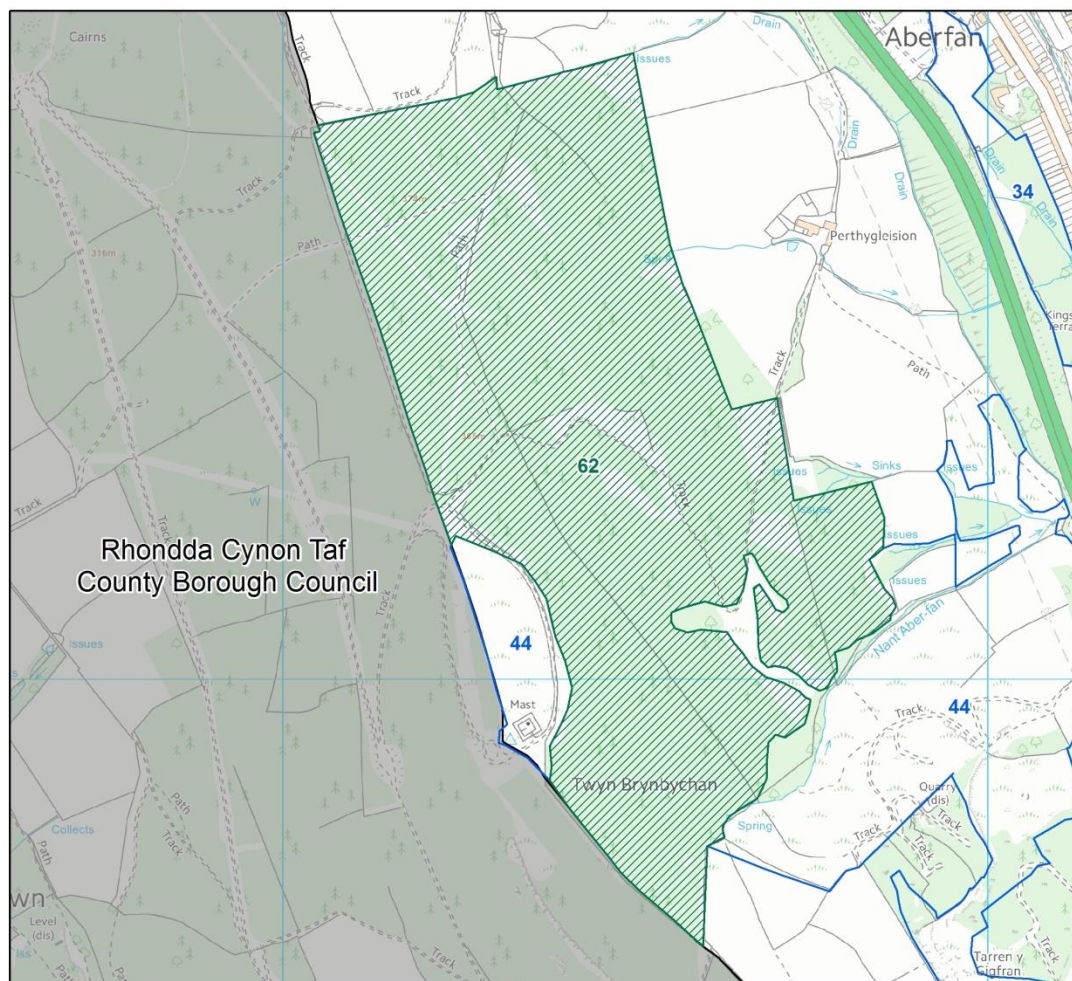
Safle o Bwysigrwydd i Gadwraeth Natur (SBGN) /
Site of Importance for Nature Conservation (SINC) Number: 62

Site Name / Enw'r Safle: Cefn Forest

Ward / Ward: Merthyr Vale

Dwyreiniad / Easting: 306436 Gogleddiad / Northing: 199310

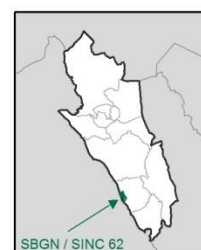
Maint y Safle (Ha) / Site Size (Ha): 47.49



Ffin SBGN arfaethedig /
Proposed SINC boundary

Ffin SBGN cyfagos /
Neighbouring SINC boundary

Ffin Cyngor Bwrdeistref Sirol Merthyr Tudful /
Merthyr Tydfil County Borough Council boundary



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werthu y data yma i unrhyw drydydd barti mewn unrhyw ffurf"

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Map 4: Proposed SINC No. 63 St Tydfil Forest (East)



Cynllun Datblygu Lleol Merthyr Tudful 2016-2031 Merthyr Tydfil Local Development Plan 2016-2031

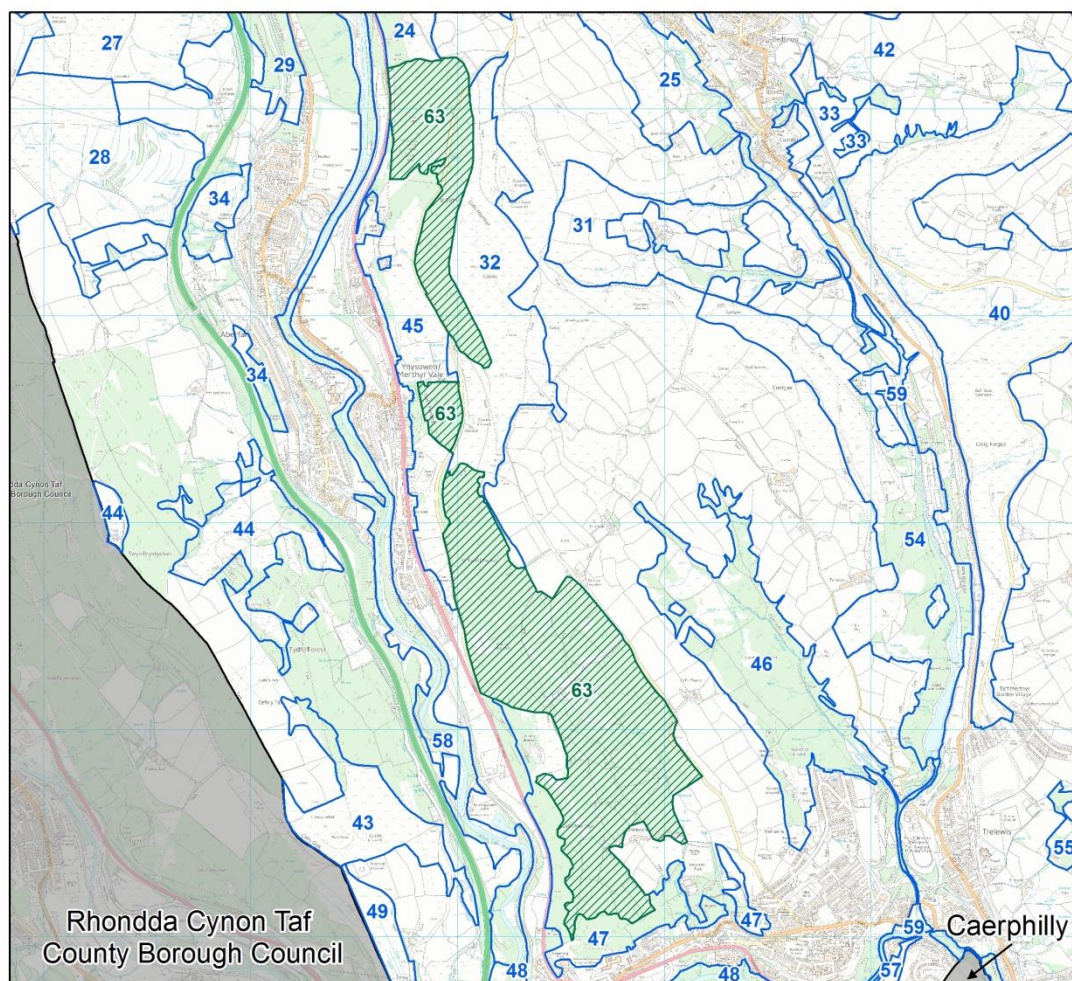
Safle o Bwysigrwydd i Gadwraeth Natur (SBN) /
Site of Importance for Nature Conservation (SINC) Number: 63

Enw'r Safle / Site Name: St Tydfil Forest (East)

Ward / Ward: Merthyr Vale / Treharris

Dwyreiniad / Easting: 308033 Gogleddiad / Northing: 199055

Maint y Safle (Ha) / Site Size (Ha): 148.53



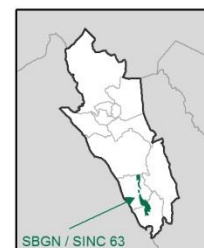
Ffin SBN arfaethedig /
Proposed SINC boundary

Ffin SBN cyfagos /
Neighbouring SINC boundary

Ffin Cynllun Datblygu Lleol Merthyr Tudful /
Merthyr Tydfil Local Development Plan boundary

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"Ni chaniateir i chwi gopio, tan-drwyddedu, dosbarthu neu
werthu y data yma i unrhyw drydydd barti mewn unrhyw ffurf"

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Map 5: Proposed SINC No. 64 St Tydfil Forest (West)



Cynllun Datblygu Lleol Merthyr Tudful 2016-2031
Merthyr Tydfil Local Development Plan 2016-2031

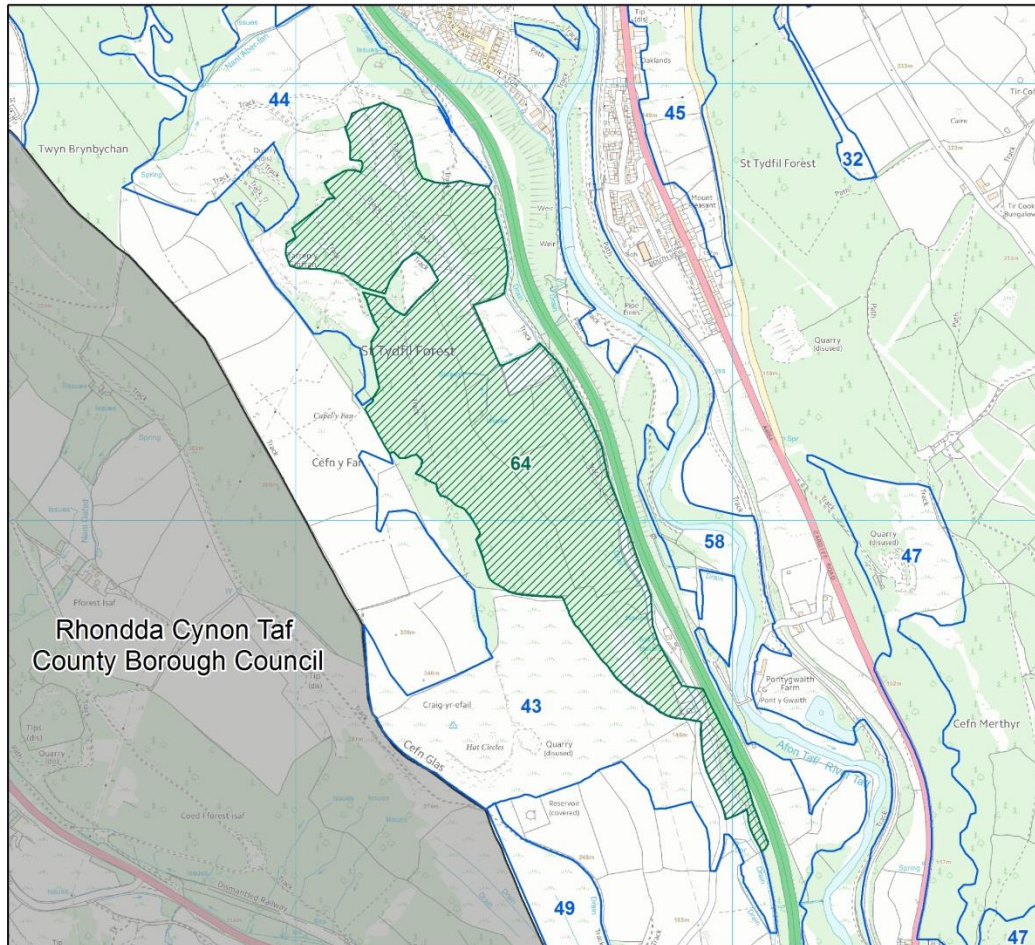
Safle o Bwysigrwydd i Gadwraeth Natur (SBN) /
Site of Importance for Nature Conservation (SINC) Number: 64

Enw'r Safle / Site name: St Tydfil Forest West

Ward / Ward: Merthyr Vale / Treharris

Dwyreiniad / Easting: 307427 **Gogleddiad / Northing:** 198210

Maint y Safle (Ha) / Site Size (Ha): 44.8



Ffin SBN arfaethedig /
Proposed SINC boundary

Ffin SBN cyfagos /
Neighbouring SINC boundary

Ffin Cyngor Bwrdeistref Sirol Merthyr Tudful /
Merthyr Tydfil County Borough Council boundary

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APPENDIX 1: SINC REVIEW SURVEY SHEET

Sites of Importance for Nature Conservation (SINC) Review SURVEY SHEET			
SINC Name (English language): <small>As shown on Appendix 1 of the adopted Merthyr Tydfil Local Development Plan – August 25th May 2011.</small>		Welsh Language and/or local SINC Name:	
SINC No: <small>As shown on Appendix 1 of the adopted LDP– August 25th May 2011</small>	Grid Reference: <small>As shown on Appendix 1 of the adopted LDP– August 25th May 2011</small>	Site Area: <small>As shown on the attached plan</small>	
Main habitat feature/s: <div style="text-align: right;"><small>See remarks on original summary sheet.</small></div>			
SINC Habitat identified in original survey:			
H1	H2	H3	H4
H5	H6	H7	
H8	H9	H10	H11
H12	H15	H16	
H17	H18	H19	H20
H21	H22		
<small>As identified in <i>Criteria for the Selection of Sites of Importance for Nature Conservation in the County Boroughs of Blaenau Gwent, Caerphilly, Merthyr Tydfil and Rhondda Cynon Taff (the 'Mid-Valleys Area')</i> - 2008.</small>			
Selection Criteria met for each habitat including indicator species present on site: (Cut and paste from attached Habitats Criteria table and attach completed Indicator Species tables where relevant):			
H	H	H	
Are there any significant changes to the SINC?		YES	NO
If yes what are they?(Include details of any specific habitat loss)			
Is there an overall loss of habitat?	YES If yes, What is the net loss?.....SQM		NO
Are boundary changes required? (If yes illustrate on attached plan)	YES	NO	
Does the site still meet SINC designation criteria?	YES	NO	
Additional Notes:			
Validation surveyor/s:		Date of Survey:	

Appendix 2: HABITAT CRITERIA TABLE

Sites of Importance for Nature Conservation (SINC) Review		
HABITAT CRITERIA TABLE (Criteria for the Selection of SINC in the Mid-Valleys Area)		
H1	WOODLANDS	<ul style="list-style-type: none"> All ancient woodlands (1600 AD) as recorded in the Ancient Woodland Inventories, including Planted Ancient Woodlands (PAWs). All semi-natural woodlands ≥ 0.25 ha which support an assemblage of ancient woodland indicator and/or semi-natural woodland plant species (see Table 1: <i>Semi-natural woodland vascular plants</i>). All wet woodland sites ≥ 0.25 ha with an assemblage of ancient woodland indicators, or wetland ground floras. All planted woodland ≥ 0.25 ha that support an assemblage of ancient woodland indicators, or other species-rich habitats. Smaller areas (≤ 0.25 ha) of semi-natural or wet woodland as SINC if they either particularly species-rich, support important faunas, or if they form part of a larger SINC designation, or complex of habitats, or fulfil a strategic linking function between SINC areas, or other habitats. All conifer plantations which support important species, or species assemblages, or which support habitats, which would qualify under other Habitat criteria (e.g. bogs or heathland).
H2	WOOD PASTURE, PARKLANDS, ORCHARDS AND VETERAN TREES	<ul style="list-style-type: none"> Parkland sites which derived from ancient woodland and which continue to support large mature trees (often referred to as 'coedcae'). Parkland sites, of whatever origin, containing good numbers of large over-mature trees. Over-mature/veteran trees ≥ 3.7m circumference at 1.3m from base, or individuals that are estimated to be at least 200 years old which exhibit veteran tree characteristics such as rot hollows, bracket fungi or a large proportion of dead wood. Examples of orchards which are, or were, traditionally managed and which still contain several old fruit trees.
H3	SCRUB COMMUNITIES	<ul style="list-style-type: none"> Structurally diverse and species-rich mixed scrub sites ≥ 1 ha in size. Significant stands of gorse (≥ 1 ha in size) and/or stands which support key associated species. Smaller stands of scrub (including less species-rich areas) if they form an integral part of a larger SINC designation or complex habitat mosaics or fulfil a strategic linking function between SINC. <p>(It is suggested that 'mixed scrub' habitats considered for selection should normally contain at least 6 native woody species and that there is good structural diversity).</p>
H4	NEUTRAL GRASSLANDS	<ul style="list-style-type: none"> All examples of crested dog's-tail - common knapweed grasslands (mg5) ≥ 0.2 ha All stands of species-rich MG1 and MG6 with at least 8 species from Table 1: <i>Semi-natural woodland vascular plants</i> and ≥ 0.2 ha. All stands of species-rich atypical NVC neutral grassland, with at least 8 species from Table 1: <i>Semi-natural woodland vascular plants</i> ≥ 0.2 ha. In particular important grassland communities, which occur on road verges, or brown field sites, are often not easily referable to NVC community. From Table 2: <i>Indicator Species for Neutral Grasslands</i>- any grassland site which supports a population of rare or very restricted species in the Mid-Valleys area: wood bitter-vetch (<i>Vicia orobus</i>); moonwort (<i>Botrychium linaria</i>); soft-leaved sedge (<i>Carex</i>

		<i>montana</i>); meadow saffron (<i>Colchium autumnale</i>); dyer's greenweed (<i>Genista tinctoria</i>); adder's-tongue fern (<i>Ophioglossum vulgatum</i>); green winged orchid (<i>Orchis morio</i>); greater butterfly orchid (<i>Platanthera chlorantha</i>); meadow saxifrage (<i>Saxifraga granulata</i>) and orcommon meadow-rue (<i>Thalictrum flavum</i>).
H5	CALCAREOUS GRASSLANDS	<ul style="list-style-type: none"> All examples of unimproved calcareous grassland ≥ 0.2 ha. All examples of species-rich semi-improved or secondary calcareous grassland ≥ 0.2 ha. Smaller areas (≤ 0.2 ha) of species-rich calcareous grassland if they form an integral part of a larger SINC designation or complex habitat mosaics or fulfil a strategic linking function between SINC, or as part of a road verge designation.
H6	ACID GRASSLANDS	<ul style="list-style-type: none"> All examples of unimproved acid grassland ≥ 0.2 ha. All examples of semi-improved acid grassland ≥ 0.5 ha, which retain a relatively high diversity of indicator species. Smaller areas (≤ 0.5 ha) of unimproved or semi-improved acid grassland if they form an integral part of a larger SINC designation or complex habitat mosaics or fulfil a strategic linking function between SINC.
H7	MARSHY GRASSLANDS	<ul style="list-style-type: none"> All areas of: blunt-flowered rush - marsh bedstraw fen meadow (M22), purple moor-grass - meadow thistle fen meadow (M24) and meadowsweet - wild angelica mire (M27). All examples of species-rich M23 ≥ 0.2 ha, which include 12 species in Table 5: <i>Indicator Species for Marshy Grasslands</i> and all stands of moderately species-rich M23 (8 species from Table 5: <i>Indicator Species for Marshy Grasslands</i>) ≥ 0.5 ha. All examples of species-rich M25 ≥ 0.2 ha, which include 12 species in Table 5: <i>Indicator Species for Marshy Grasslands</i> and all stands of M25 (8 species from Table 5: <i>Indicator Species for Marshy Grasslands</i>) ≥ 0.5 ha. All stands of marshy grassland (and associated dry grassland habitats), which have been identified as potential, suitable or good condition marsh fritillary habitat. Smaller areas of marshy grassland if they form an integral part of a larger SINC designation or complex habitat mosaics (including wet heath) or fulfil a strategic linking function between SINC.
H8	FLOODPLAIN GRAZING MARSH	All examples of floodplain grassland, which are extensive, subject to frequent inundation and/or support semi/unimproved grassland communities or populations of characteristic species.
H9	FFRIDD COMMUNITIES	<ul style="list-style-type: none"> All large stands of ffridd ≥ 10 ha. Smaller stands of species-rich bracken habitat, including violet-rich fritillary butterfly habitat. Smaller areas of ffridd if they form an integral part of a larger SINC designation or complex habitat mosaics or fulfil a strategic linking function between SINC. <p>(The designation of ffridd may be supported by the presence of associated species e.g. grassland fungi, bryophytes and lichens, flora, invertebrates, reptiles, birds and mammals).</p>
H10	HEATHLANDS AND GRASS-HEATH COMMUNITIES	<ul style="list-style-type: none"> All examples of unmodified wet heathland and wet grass-heath, and where cross-leaved heath is still present even though reduced in its cover due to grazing pressure. All examples of unmodified dry heathland. All examples of degraded heathland, secondary heathland, coal spoil heaths (including lichen/bryophyte/heath) and grass-heath mixtures which either meet the guidelines for designation as acid grassland (and are thus designated as such) or which have at least 10% dwarf shrub heath cover. <p>(The designation of heathland sites is supported by the presence of associated species e.g. heathland fungi, bryophytes and lichens, flora, invertebrates, reptiles, birds and mammals,</p>

		and amphibians in wet heath).
H11	FENS, REEDBEDS AND OTHER SWAMPS	<ul style="list-style-type: none"> All examples of fen habitat, providing they are not grossly modified by agricultural improvement. All examples of reedbed and other tall swamps ≥ 0.2 ha. Smaller stands of reedbed and swamp if they form an integral part of a larger SINC designation or complex habitat mosaics, or fulfil a strategic linking function. <p>(The designation fens, reedbeds and swamp sites are supported by the presence of associated species e.g. bryophytes and lichens, flora, invertebrates, reptiles, amphibians, birds and mammals).</p>
H12	BOG HABITATS AND FLUSHES	<ul style="list-style-type: none"> All examples of un-degraded bog habitats. All degraded bog habitats with the potential for restoration or which support some distinctive features of the habitat type. Individual neutral, basic or acid flushes of any size, providing they are not grossly modified by agricultural improvement. <p>(The designation of bogs sites may be supported by the presence of associated species e.g. bryophytes and lichens, flora, invertebrates, amphibians, birds and mammals).</p>
H15	WATERCOURSES	<ul style="list-style-type: none"> All examples of stretches of main rivers where the riverbed and banks remain comparatively unmodified and the water is not grossly polluted. All examples of stretches of smaller watercourses (i.e. streams, canals, brooks etc.), which are comparatively unmodified within the last 100 years, which support good aquatic, emergent or bank side plant communities, and the water is not grossly polluted. All examples of systems of reens and/or ditches with a diverse aquatic flora and/or fauna (including the associated habitat, e.g. field systems on river floodplains). All stretches of watercourses which support protected species, including otter and water vole. <p>(The designation of watercourses will be supported by the presence of associated species e.g. bryophytes and lichens, flora, invertebrates, amphibians, birds and mammals).</p>
H16	STANDING OPEN WATER	<ul style="list-style-type: none"> All examples of lakes and ponds which have largely unmodified, semi-natural beds and banks, good water quality and/or which support good aquatic, emergent or bank side plant communities. All examples of ponds which score 'High' or 'Very High' when assessed using methodology set out in the <i>National Pond Survey</i> (Pond Action, 1998). All ponds which qualify under individual relevant Species Criteria (flora, invertebrates, amphibians, or birds). All less valuable ponds if they occur as integral features larger mosaic SINC.
H17	HEDGEROWS	<ul style="list-style-type: none"> All sites that support close networks of interlinked hedges of which the majority (i.e. $\geq 50\%$) score grade 2 or higher when evaluated using the HEGS methodology (Clements & Tofts, 1992) All sites that support close networks of interlinked hedges of which the majority contain 5 or more native woody shrubs in a 30 metre sample and which qualify as 'Important Hedgerows', as defined in the Hedgerow Regulations (HMSO, 1997). N.B. 'close networks' in this context refers to sites in which the average field size is about 4.0ha or less. All those hedges that score grade 1 (including -1) when evaluated using the HEGS methodology (Clements & Tofts, 1992) and/or are linked to woodlands, ponds or other locally important habitats, and/or are known to support rare or protected species. All other hedgerows and hedgerow networks which form important links to woodlands,

		<p>ponds or other locally important habitats, and/or are known to support rare or protected species (see <i>Species Criteria</i>).</p> <p>(The designation of hedgerow SINC may be supported by the presence of associated species e.g. fungi, flora, invertebrates, reptiles, amphibians, birds and mammals).</p>
H18	MINERAL SPOIL TIPS AND OTHER POST-INDUSTRIAL LAND	<ul style="list-style-type: none"> All examples of species-rich mineral spoil tips / post-industrial land that have naturally re-vegetated with a diverse range of native and archaeophyte non-woody plant species. The constituent habitats will be assessed against individual habitat criteria as set out in this document or as part of large mosaic SINC. All examples of lichen-heath on mineral spoil tips which support the 8 key lichen-heath species identified in the <i>Strategic Conservation Assessment of Heathland and Associated Habitats on the Coal Spoils of South Wales</i> (Miller HS, Clarkson, B and Smith, PL., 2007). <p>(The designation mineral spoil sites may be supported by the presence of associated species e.g. fungi, flora, invertebrates, reptiles, amphibians, birds and mammals).</p>
H19	SPECIES-RICH TILLAGE FIELDS AND MARGINS	<p>All examples of fields that contain 8 or more species listed in Table 7: <i>Indicator Species for Tillage Fields and Margins</i>.</p> <p>(The designation of SINC may be supported by the presence of associated species e.g. fungi, flora, invertebrates, reptiles, amphibians, birds and mammals).</p>
H20	MOSAIC HABITATS AND COMMON LAND	<ul style="list-style-type: none"> Any coherent site, which comprises at least 3 distinct habitat types, where at least 1 habitat is approaching SINC selection status in its own right, providing that improved, species-poor or degraded elements of low or negligible conservation interest do not form a significant proportion ($\geq 25\%$) of the total area. A 'block designation' of extensive areas of open countryside where semi-natural upland features predominate. <p>(The designation of mosaic SINC's may be supported by the presence of associated species).</p>
H21	ROCK EXPOSURES	<ul style="list-style-type: none"> All occurrences of limestone pavement, especially where supporting a rich gryke flora (i.e. mixtures of species characteristic of calcareous woodlands and grasslands within the cracks and furrows). Inland cliffs, quarries, crags and associated screes, where these support species of interest. <p>(All rock exposure sites may also qualify as geological RIGS).</p>
H22	OTHER FEATURES	<ul style="list-style-type: none"> Continuous sections of disused railway line supporting semi-natural vegetation. Continuous sections of green lanes and other linear features that have more-or-less continuous semi-natural woodland boundaries or wide flowery verges and/or un-surfaced track ways. All examples of areas where there are significant populations of anthills and/or where several are estimated to be in excess of 50 years old.

APPENDIX 3: INDICATOR SPECIES TABLES

Sites of Importance for Nature Conservation (SINC) Review

Table 1: Semi-natural woodland vascular plants

Scientific Name	Common Name	Date recorded	Date recorded	Date recorded
<i>Acer campestre</i>	field maple			
<i>Adoxa moschatellina</i>	moshatel			
<i>Allium ursinum</i>	ramsons			
<i>Anemone nemorosa</i>	wood anemone			
<i>Aquilegia vulgaris</i>	columbine			
<i>Blechnum spicant</i>	hard fern			
<i>Bromus ramosus</i>	hairy brome			
<i>Calluna vulgaris</i>	heather			
<i>Campanula trachelium</i>	nettle-leaved bellflower			
<i>Carex laevigata</i>	smooth-stalked sedge			
<i>Carex pallescens</i>	pale sedge			
<i>Carex pendula</i>	pendulous sedge			
<i>Carex remota</i>	distant sedge			
<i>Carex strigosa</i>	thin-spiked wood-sedge			
<i>Carex sylvatica</i>	wood sedge			
<i>Chrysosplenium alternifolium</i>	alternate-leaved golden-saxifrage			
<i>Chrysosplenium oppositifolium</i>	opposite-leaved golden-saxifrage			
<i>Conopodium majus</i>	pignut			
<i>Convallaria majalis</i>	lily-of-the-valley			
<i>Corydalis claviculata</i>	climbing corydalis			
<i>Daphne laureola</i>	spurge laurel			
<i>Daphne mezereum</i>	mezeron			
<i>Deshampsia flexuosa</i>	wavy hair grass			
<i>Dryopteris affinis</i>	scaly male fern			
<i>Dryopteris aemula</i>	hay-scented buckler fern			
<i>Elymus caninus</i>	bearded couch-grass			
<i>Epipactis helleborine</i>	broad-leaved helleborine			
<i>Equisetum sylvaticum</i>	wood horsetail			
<i>Euonymus europaeus</i>	spindle			
<i>Euphorbia amygdaloides</i>	wood spurge			
<i>Festuca gigantea</i>	giant fescue			
<i>Frangula alnus</i>	alder buckthorn			
<i>Galium odoratum</i>	sweet woodruff			
<i>Geum rivale</i>	water avens			
<i>Gymnocarpium dryopteris</i>	oak fern			
<i>Hyacinthoides non-scripta</i>	bluebell			
<i>Hymenophyllum tunbridgense</i>	Tunbridge filmy-fern			
<i>Hymenophyllum wilsonii</i>	Wilson's filmy fern			
<i>Hypericum androsaemum</i>	tutsan			
<i>Iris foetidissima</i>	stinking iris			
<i>Lamium galeobdolon</i>	yellow archangel			
<i>Lathraea squamaria</i>	toothwort			
<i>Luzula forsteri</i>	southern woodrush			
<i>Luzula pilosa</i>	hairy woodrush			
<i>Luzula sylvatica</i>	great woodrush			
<i>Lysimachia nemorum</i>	yellow pimpernel			
<i>Malus sylvestris</i>	crab apple			
<i>Melampyrum pratense</i>	common cow-wheat			
<i>Melica uniflora</i>	wood mellick			
<i>Melittis melissophyllum</i>	bastard balm			
<i>Mercurialis perennis</i>	dog's mercury			

<i>Milium effusum</i>	wood millet			
<i>Moehringia trinervium</i>	three-nerved sandwort			
<i>Neottia nidus-avis</i>	bird's nest orchid			
<i>Orchis mascula</i>	early purple-orchid			
<i>Oxalis acetosella</i>	wood sorrel			
<i>Paris quadrifolia</i>	herb-Paris			
<i>Platanthera chlorantha</i>	greater butterfly orchid			
<i>Poa nemoralis</i>	wood meadow grass			
<i>Polygonatum multiflorum</i>	solomon's seal			
<i>Polystichum aculeatum</i>	hard shield fern			
<i>Polystichum setiferum</i>	soft shield fern			
<i>Populus tremula</i>	Aspen			
<i>Potentilla sterilis</i>	barren strawberry			
<i>Primula vulgaris</i>	Primrose			
<i>Prunus padus</i>	bird cherry			
<i>Quercus petraea</i>	sessile oak			
<i>Ranunculus auricomus</i>	goldilocks buttercup			
<i>Rhamnus catharticus</i>	Buckthorn			
<i>Ribes rubrum</i>	Redcurrant			
<i>Sanicula europaea</i>	Sanicle			
<i>Scirpus sylvaticus</i>	wood club-rush			
<i>Scrophularia nodosa</i>	Figwort			
<i>Sorbus torminalis</i>	wild service			
<i>Stellaria neglecta</i>	greater chickweed			
<i>Stellaria nemorum</i>	wood stichwort			
<i>Taxus baccata</i>	Yew			
<i>Tilia cordata</i>	small-leaved lime			
<i>Ulmus glabra</i>	wych elm			
<i>Vaccinium myrtillus</i>	Bilberry			
<i>Veronica montana</i>	wood speedwell			
<i>Viburnum opulus</i>	guelder rose			
<i>Vicia sylvatica</i>	wood vetch			
<i>Viola reichenbachiana</i>	pale dog violet			

Sites of Importance for Nature Conservation (SINC) Review

Table 2: Indicator Species for Neutral Grasslands

Scientific Name	Common Name	Date recorded	Date recorded	Date recorded
<i>Achillea ptarmica</i>	sneezewort			
<i>Agrimonia eupatoria</i>	agrimony			
<i>Agrimonia procera</i>	fragrant agrimony			
<i>Ajuga reptans</i>	bugle			
<i>Alchemilla glabra</i>	lady's-mantle			
<i>Alchemilla filicaulis</i>	lady's-mantle			
<i>Alchemilla xanthochlora</i>	lady's-mantle			
<i>Allium vineale</i>	wild onion			
<i>Botrychium lunaria</i>	moonwort			
<i>Briza media</i>	quaking grass			
<i>Bromus commutatus</i>	meadow brome			
<i>Bromus racemosus</i>	smooth brome			
<i>Campanula rotundiflora</i>	harebell			
<i>Cardamine pratensis</i>	cuckoo flower			
<i>Carex caryophyllea</i>	spring sedge			
<i>Carex divulsa</i>	grey sedge			

<i>Carex flacca</i>	glaucous sedge			
<i>Carex montana</i>	soft-leaved sedge			
<i>Carex muricata</i>	prickly sedge			
<i>Carex nigra</i>	common sedge			
<i>Carex panicea</i>	carnation sedge			
<i>Carex spicata</i>	spiked sedge			
<i>Centaurea nigra</i>	common knapweed			
<i>Centaurium erythraea</i>	common centuary			
<i>Cirsium dissectum</i>	meadow thistle			
<i>Colchicum autumnale</i>	meadow saffron			
<i>Conopodium majus</i>	pignut			
<i>Dactylorhiza spp.</i>	spotted orchids			
<i>Danthonia decumbens</i>	heath grass			
<i>Erophila verna</i>	whitlow grass			
<i>Euphrasia officinalis agg.</i>	eyebright			
<i>Festuca arundinacia</i>	tall fescue			
<i>Festuca pratensis</i>	meadow fescue			
<i>Galium verum</i>	lady's bedstraw			
<i>Genista tinctoria</i>	dyer's greenweed			
<i>Geranium pratense</i>	meadow crane's-bill			
<i>Helictotrichon pubescens</i>	downy oat-grass			
<i>Hordeum secalinum</i>	meadow barley			
<i>Hypericum hirsutum</i>	hairy St John's-wort			
<i>Hypericum maculatum</i>	imperfurate St John's-wort			
<i>Hypericum perforatum</i>	perforate St John's-wort			
<i>Hypochoeris radicata</i>	common cat's-ear			
<i>Knautia arvensis</i>	field scabious			
<i>Koeleria macrantha</i>	crested hair grass			
<i>Lathyrus linifolius</i>	bitter-vetch			
<i>Lathyrus nissolia</i>	grass vetchling			
<i>Lathyrus pratensis</i>	meadow vetchling			
<i>Leontodon hispidus</i>	rough hawkbit			
<i>Leontodon saxatilis</i>	lesser hawkbit			
<i>Leucanthemum vulgare</i>	oxeye daisy			
<i>Linum catharticum</i>	fairy flax			
<i>Listera ovata</i>	common twayblade			
<i>Lotus corniculatus</i>	common bird's-foot-trefoil			
<i>Lotus glaber</i>	narrow-leaved bird's-foot-trefoil			
<i>Luzula campestris</i>	field wood-rush			
<i>Narcissus pseudonarcissus</i>	wild daffodil			
<i>Ononis repens</i>	common restharrow			
<i>Ononis spinosa</i>	spiny restharrow			
<i>Ophioglossum vulgatum</i>	adder's-tongue			
<i>Orchis mascula</i>	early-purple orchid			
<i>Orchis morio</i>	green-winged orchid			
<i>Pedicularis sylvatica</i>	lousewort			
<i>Petroselinum segetum</i>	corn parsley			
<i>Phleum bertolonii</i>	small cat's-tail			
<i>Pilosella officinarum</i>	mouse-ear hawkweed			
<i>Pimpinella saxifraga</i>	burnet-saxifrage			

<i>Plantago media</i>	hoary plantain			
<i>Platanthera chlorantha</i>	greater butterfly-orchid			
<i>Poa angustifolia</i>	narrow-leaved meadow-grass			
<i>Poa humilis</i>	spreading meadow-grass			
<i>Polygala vulgaris</i>	common milkwort			
<i>Polygonum bistorta</i>	common bistort			
<i>Potentilla anglica</i>	trailing tormentil			
<i>Potentilla erecta</i>	tormentil			
<i>Primula veris</i>	cowslip			
<i>Ranunculus bulbosus</i>	bulbous buttercup			
<i>Rhinanthus minor</i>	yellow rattle			
<i>Sanguisorba minor</i>	salad burnet			
<i>Sanguisorba officinalis</i>	greater burnet			
<i>Saxifraga granulata</i>	meadow saxifrage			
<i>Saxifraga tridactylites</i>	rue-leaved saxifrage			
<i>Senecio erucifolius</i>	hoary ragwort			
<i>Serratula tinctoria</i>	saw-wort			
<i>Silene silaus</i>	pepper-saxifrage			
<i>Sison amomum</i>	stone parsley			
<i>Stachys officinalis</i>	betony			
<i>Stellaria graminea</i>	lesser stitchwort			
<i>Succisa pratensis</i>	devil's-bit scabious			
<i>Thalictrum flavum</i>	common meadow-rue			
<i>Thymus pulegioides</i>	large thyme			
<i>Torilis nodosa</i>	knotted hedge-parsley			
<i>Trifolium fragiferum</i>	strawberry clover			
<i>Trifolium medium</i>	zig-zag clover			
<i>Trifolium micranthum</i>	slender trefoil			
<i>Trifolium pratense</i>	red clover			
<i>Trifolium scabrum</i>	rough clover			
<i>Trifolium striatum</i>	knotted clover			
<i>Trisetum flavescens</i>	yellow oat-grass			
<i>Veronica officinalis</i>	heath speedwell			
<i>Vicia cracca</i>	tufted vetch			
<i>Vicia orobus</i>	wood bitter-vetch			
<i>Viola riviniana</i>	common dog-violet			
<i>Vulpia bromoides</i>	squirreltail fescue			

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Table 3: Indicator Species for Calcareous Grasslands

Scientific Name	Common Name	Date recorded	Date recorded	Date recorded
<i>Allium vineale</i>	wild onion			
<i>Aloina aloides</i>				
<i>Anacamptis pyramidalis</i>	pyramidal orchid			
<i>Anthyllis vulneraria</i>	kidney vetch			
<i>Arabis hirsuta</i>	hairy rock-cress			
<i>Asperula cynanchica</i>	squincywort			

<i>Blackstonia perfoliata</i>	yellow-wort			
<i>Brachypodium pinnatum</i>	tor grass			
<i>Briza media</i>	quaking grass			
<i>Bromopsis erecta</i>	upright brome			
<i>Campanula glomerata</i>	clustered bellflower			
<i>Campanula rotundiflora</i>	harebell			
<i>Campanula trachelium</i>	nettle-leaved bellflower			
<i>Carex caryophylla</i>	spring sedge			
<i>Carex flacca</i>	glaucous sedge			
<i>Carex montana</i>	soft-leaved sedge			
<i>Carlina vulgaris</i>	carline thistle			
<i>Centaurea nigra</i>	common knapweed			
<i>Centaurea scabiosa</i>	greater knapweed			
<i>Centaurium erythraea</i>	common centuary			
<i>Cirsium acaule</i>	dwarf thistle			
<i>Cirsium eriophorum</i>	woolly thistle			
<i>Cirsium tuberosum</i>	tuberous thistle			
<i>Clinopodium acinos</i>	basil thyme			
<i>Clinopodium ascendens</i>	common calamint			
<i>Clinopodium calamintha</i>	lesser calamint			
<i>Clinopodium vulgare</i>	wild basil			
<i>Coeloglossum viride</i>	frog orchid			
<i>Crepis biennis</i>	rough hawk's-beard			
<i>Cruciata laevipes</i>	crosswort			
<i>Daucus carota</i>	wild carrot			
<i>Ditrichum flexicaule</i>				
<i>Ditrichum gracile</i>				
<i>Echium vulgare</i>	viper's-bugloss			
<i>Erophila verna</i>	whitlow grass			
<i>Festuca ovina agg.</i>	sheep's fescue			
<i>Galium mollugo</i>	hedge bedstraw			
<i>Galium sternerii</i>	limestone bedstraw			
<i>Galium verum</i>	lady's bedstraw			
<i>Genista tinctoria</i>	dye's greenweed			
<i>Gentianella amarella</i>	autumn gentian			
<i>Geranium columbinum</i>	long-stalked crane's-bill			
<i>Helianthemum nummularium</i>	common rock-rose			
<i>Helictotrichon pratense</i>	meadow oat-grass			
<i>Helictotrichon pubescens</i>	downy oat-grass			
<i>Hippocrepis comosa</i>	horseshoe vetch			
<i>Homalothecium lutescens</i>				
<i>Hypericum hirsutum</i>	hairy St John's-wort			
<i>Hypericum montanum</i>	pale St John's-wort			
<i>Hypericum perforatum</i>	perforate St John's-Wort			
<i>Inula conyzae</i>	ploughman's spikenard			
<i>Knautia arvensis</i>	field scabious			
<i>Koeleria macrantha</i>	crested hair-grass			
<i>Lathyrus nissolia</i>	grass vetchling			
<i>Leiocolea turbinata</i>				

<i>Leontodon hispidus</i>	rough hawkbit			
<i>Leontodon saxatilis</i>	lesser hawkbit			
<i>Linum catharticum</i>	fairy flax			
<i>Listera ovata</i>	twayblade			
<i>Lotus corniculatus</i>	common bird's-foot trefoil			
<i>Medicago lupulina</i>	black medick			
<i>Ononis repens</i>	common restharrow			
<i>Ononis spinosa</i>	spiny restharrow			
<i>Ophioglossum vulgatum</i>	adder's-tongue			
<i>Ophrys apifera</i>	bee orchid			
<i>Orchis mascula</i>	early-purple orchid			
<i>Orchis morio</i>	green-winged orchid			
<i>Origanum vulgare</i>	wild majoram			
<i>Pastinaca sativa</i>	wild parsnip			
<i>Petroselinum segetum</i>	corn parsley			
<i>Picris hieracioides</i>	hawkweed oxtongue			
<i>Pilosella officinarum</i>	mouse-ear hawkweed			
<i>Pimpinella saxifraga</i>	burnet-saxifrage			
<i>Plantago media</i>	hoary plantain			
<i>Platanthera chlorantha</i>	greater butterfly-orchid			
<i>Poa angustifolia</i>	narrow-leaved meadow-grass			
<i>Poa humilis</i>	spreading meadow-grass			
<i>Polygala vulgaris</i>	common milkwort			
<i>Potentilla sterilis</i>	barren strawberry			
<i>Primula veris</i>	cowslip			
<i>Ranunculus bulbosus</i>	bulbous buttercup			
<i>Rhodobryum roseum</i>				
<i>Sagina nodosa</i>	knotted pearlwort			
<i>Sanguisorba minor</i>	salad burnet			
<i>Saxifraga hypnoides</i>	moosy saxifrage			
<i>Saxifraga tridactylites</i>	rue-leaved saxifrage			
<i>Scabiosa columbaria</i>	small scabious			
<i>Senecio erucifolius</i>	hoary ragwort			
<i>Serratula tinctoria</i>	saw-wort			
<i>Sherardia arvensis</i>	field madder			
<i>Sison amomum</i>	stone parsley			
<i>Spiranthes spiralis</i>	autumn lady's-tresses			
<i>Thalictrum minus</i>	lesser meadow-rue			
<i>Thymus polytrichus</i>	wild thyme			
<i>Thymus pulegioides</i>	large thyme			
<i>Torilis nodosa</i>	knotted hedge-parsley			
<i>Trichostomum brachydontium</i>				
<i>Trichostomum crispulum</i>				
<i>Trifolium campestre</i>	hop trefoil			
<i>Trifolium scabrum</i>	rough clover			
<i>Trifolium striatum</i>	knotted clover			
<i>Trisetum flavescens</i>	yellow oat-grass			
<i>Veronica arvensis</i>	wall speedwell			
<i>Viola hirta</i>	hairy violet			
<i>Viola riviniana</i>	common dog-violet			

<i>Vulpia bromoides</i>	squirreltail fescue			
<i>Weissa controversa</i>				
<i>Weissa brachycarpa</i>				
<i>Weissa microstoma</i>				

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Table 4: Indicator Species for Acid Grasslands

Scientific Name	Common Name	Date recorded	Date recorded	Date recorded
<i>Agrostis curtisii</i>	bristle bent			
<i>Agrostis vinealis</i>	brown bent			
<i>Aira caryophylla</i>	silver hair-grass			
<i>Aira praecox</i>	early hair-grass			
<i>Botrychium lunaria</i>	moonwort			
<i>Calluna vulgaris</i>	ling heather			
<i>Campanula rotundiflora</i>	harebell			
<i>Carex caryophylla</i>	spring sedge			
<i>Carex pilulifera</i>	pill sedge			
<i>Carex muricata</i>	prickly sedge			
<i>Cirsium dissectum</i>	meadow thistle			
<i>Conopodium majus</i>	pignut			
<i>Dactylorhiza maculata</i>	heath spotted-orchid			
<i>Danthonia decumbens</i>	heath grass			
<i>Deschampsia flexuosa</i>	wavy hair-grass			
<i>Dicranum scoparium</i>				
<i>Erica cinerea</i>	bell-heather			
<i>Erophila verna</i>	whitlow grass			
<i>Festuca ovina</i>	sheep's fescue			
<i>Galium saxatile</i>	heath bedstraw			
<i>Hieracium spp</i>	hawkweed spp			
<i>Hylocomium splendens</i>				
<i>Hypericum humifusum</i>	trailing St John's-wort			
<i>Hypericum pulchrum</i>	slender St John's-wort			
<i>Jasione montana</i>	sheep's bit			
<i>Juncus squarrosus</i>	heath rush			
<i>Lathyrus linifolius</i>	bitter vetch			
<i>Luzula multiflora</i>	heath wood-rush			
<i>Lycopodium clavatum</i>	stag's-horn clubmoss			
<i>Moenchia erecta</i>	upright chickweed			
<i>Nardus stricta</i>	mat grass			
<i>Ophioglossum vulgatum</i>	adder's-tongue			
<i>Ornithopus perpusillus</i>	bird's-foot			
<i>Pedicularis sylvatica</i>	lousewort			
<i>Pilosella officinarum agg.</i>	mouse ear-hawkweed			
<i>Pleurosium schreberi</i>				
<i>Polygala serpyllifolia</i>	heath milkwort			
<i>Polytrichum formosum</i>				
<i>Potentilla anglica</i>	trailing tormentil			

<i>Potentilla erecta</i>	tormentil			
<i>Rumex acetosella</i>	sheeps sorrel			
<i>Senecio sylvaticus</i>	heath groundsel			
<i>Solidago virgaurea</i>	goldenrod			
<i>Spergularia rubra</i>	sand spurrey			
<i>Stachys officinalis</i>	betony			
<i>Succisa pratensis</i>	devil's-bit scabious			
<i>Trifolium scabrum</i>	rough clover			
<i>Trifolium striatum</i>	knotted clover			
<i>Vaccinium myrtillus</i>	bilberry			
<i>Veronica officinalis</i>	heath speedwell			
<i>Viola canina</i>	heath dog-violet			
<i>Viola lutea</i>	mountain pansy			
<i>Vulpia bromoides</i>	squirreltail fescue			

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Table 5: Indicator Species for Marshy Grasslands

Scientific Name	Common Name	Date recorded	Date recorded	Date recorded
<i>Achillea ptarmica</i>	Sneezewort			
<i>Agrostis canina</i>	velvet bent			
<i>Agrostis curtisii</i>	bristle bent			
<i>Anagallis tenella</i>	bog pimpernel			
<i>Angelica sylvestris</i>	wild angelica			
<i>Apium graveolens</i>	Celery			
<i>Apium inundatum</i>	lesser marshwort			
<i>Apium nodiflorum</i>	fool's-water-cress			
<i>Bidens cernua</i>	nodding bur-marigold			
<i>Bidens tripartite</i>	trifid bur-marigold			
<i>Briza media</i>	quaking grass			
<i>Calamagrostis epigejos</i>	wood small-reed			
<i>Caltha palustris</i>	marsh marigold			
<i>Cardamine pratensis</i>	cuckoo flower			
<i>Carex acuta</i>	slender tufted-sedge			
<i>Carex acutiformis</i>	lesser pond-sedge			
<i>Carex binervis</i>	green-ribbed sedge			
<i>Carex disticha</i>	brown sedge			
<i>Carex echinata</i>	star sedge			
<i>Carex flacca</i>	glaucous sedge			
<i>Carex hostiana</i>	tawny sedge			
<i>Carex laevigata</i>	smooth-stalked sedge			
<i>Carex montana</i>	soft-leaved sedge			
<i>Carex nigra</i>	common sedge			
<i>Carex ovalis</i>	oval sedge			
<i>Carex pallens</i>	pale sedge			
<i>Carex panicea</i>	carnation sedge			
<i>Carex paniculata</i>	greater tussock-sedge			
<i>Carex pendula</i>	pendulous sedge			
<i>Carex pseudocyperus</i>	cyperus sedge			
<i>Carex pulicaris</i>	flea sedge			
<i>Carex riparia</i>	greater pond-sedge			

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Table 5: Indicator Species for Marshy Grasslands

Scientific Name	Common Name	Date recorded	Date recorded	Date recorded
<i>Carex rostrata</i>	bottle sedge			
<i>Carex vesicaria</i>	bladder sedge			
<i>Carex viridula</i>	common yellow-sedge			
<i>Carum verticillatum</i>	whorled caraway			
<i>Cirsium dissectum</i>	meadow thistle			
<i>Dactylorhiza</i> spp.	spotted or marsh orchids			
<i>Dipsacus pilosus</i>	small teasel			
<i>Drosera rotundifolia</i>	round-leaved sundew			
<i>Dryopteris carthusiana</i>	narrow buckler-fern			
<i>Eleocharis</i> spp.	spike-rush spp.			
<i>Epipactis palustris</i>	marsh helleborine			
<i>Equisetum palustre</i>	marsh horsetail			
<i>Equisetum sylvaticum</i>	wood horsetail			
<i>Equisetum telemateia</i>	great horsetail			
<i>Erica tetralix</i>	cross-leaved heath			
<i>Eriophorum angustifolium</i>	common cottongrass			
<i>Eriophorum latifolium</i>	broad-leaved cottongrass			
<i>Eupatorium cannabinum</i>	hemp agrimony			
<i>Filipendula ulmaria</i>	Meadowsweet			
<i>Galium palustre</i>	common marsh-bedstraw			
<i>Galium uliginosum</i>	fen bedstraw			
<i>Genista anglica</i>	petty whin			
<i>Geum rivale</i>	water avens			
<i>Glyceria declinata</i>	small sweet-grass			
<i>Glyceria fluitans</i>	floating sweet-grass			
<i>Glyceria maxima</i>	reed sweet-grass			
<i>Glyceria notata</i>	plicate sweet-grass			
<i>Hydrocotyle vulgaris</i>	marsh pennywort			
<i>Hypericum elodes</i>	marsh St John's-wort			
<i>Hypericum tetrapterum</i>	square-stalked St John's-wort			
<i>Iris pseudacorus</i>	yellow flag-iris			
<i>Isolepis setacea</i>	bristle club-rush			
<i>Juncus acutiflorus</i>	sharp-flowered rush			
<i>Juncus articulatus</i>	jointed rush			
<i>Juncus conglomeratus</i>	compact rush			
<i>Juncus squarrosus</i>	heath rush			
<i>Juncus subnodulosus</i>	blunt-flowered rush			
<i>Lotus uliginosus</i>	greater bird's-foot-trefoil			
<i>Luzula multiflora</i>	heath wood-rush			
<i>Lychnis flos-cuculi</i>	ragged robin			
<i>Lycopus europaeus</i>	Gypsywort			
<i>Lysimachia nemorum</i>	yellow pimpernel			
<i>Lysimachia nummularia</i>	creeping-jenny			
<i>Lysimachia vulgaris</i>	yellow loosestrife			
<i>Lythrum portula</i>	water purslane			
<i>Lythrum salicaria</i>	purple loosestrife			
<i>Mentha aquatica</i>	water mint			
<i>Menyanthes trifoliata</i>	Bogbean			
<i>Molinia caerulea</i>	purple moor-grass			
<i>Montia fontana</i>	Blinks			

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Table 5: Indicator Species for Marshy Grasslands

Scientific Name	Common Name	Date recorded	Date recorded	Date recorded
<i>Myosotis laxa</i>	tufted forget-me-not			
<i>Myosotis scorpioides</i>	water forget-me-not			
<i>Myosotis secunda</i>	creeping forget-me-not			
<i>Myrica gale</i>	bog myrtle			
<i>Narthecium ossifragum</i>	bog asphodel			
<i>Oenanthe aquatica</i>	fine-leaved water-dropwort			
<i>Oenanthe crocata</i>	hemlock water-dropwort			
<i>Oenanthe fistulosa</i>	tubular water-dropwort			
<i>Osmunda regalis</i>	royal fern			
<i>Pedicularis palustris</i>	marsh lousewort			
<i>Pedicularis sylvatica</i>	Lousewort			
<i>Persicaria amphibia</i>	amphibious bistort			
<i>Persicaria bistorta</i>	common bistort			
<i>Phalaris arundinacea</i>	reed canary-grass			
<i>Phragmites australis</i>	common reed			
<i>Pinguicula vulgaris</i>	common butterwort			
<i>Polygala serpyllifolia</i>	heath milkwort			
<i>Potentilla erecta</i>	Tormentil			
<i>Potentilla palustris</i>	marsh cinquefoil			
<i>Pulicaria dysenterica</i>	common fleabane			
<i>Ranunculus flammula</i>	lesser spearwort			
<i>Ranunculus sceleratus</i>	celery-leaved buttercup			
<i>Rumex conglomeratus</i>	clustered dock			
<i>Rumex hydrolapathum</i>	water dock			
<i>Sagina nodosa</i>	knotted pearlwort			
<i>Salix repens</i>	creeping willow			
<i>Scirpus sylvaticus</i>	wood club-rush			
<i>Scrophularia auriculata</i>	water figwort			
<i>Scutellaria galericulata</i>	Skullcap			
<i>Scutellaria minor</i>	lesser skullcap			
<i>Senecio aquaticus</i>	marsh ragwort			
<i>Serratula tinctoria</i>	saw-wort			
<i>Sibthorpia europaea</i>	cornish moneywort			
<i>Stachys officinalis</i>	Betony			
<i>Stachys palustris</i>	marsh woundwort			
<i>Stellaria alsine</i>	bog stitchwort			
<i>Succisa pratensis</i>	devil's-bit scabious			
<i>Thalictrum flavum</i>	common meadow-rue			
<i>Thelypteris palustris</i>	marsh fern			
<i>Trichophorum cespitosum</i>	Deergrass			
<i>Triglochin palustre</i>	marsh arrowgrass			
<i>Trollius europaeus</i>	globeflower			
<i>Vaccinium oxycoccos</i>	Cranberry			
<i>Valeriana dioica</i>	marsh valerian			
<i>Valeriana officinalis</i>	common valerian			
<i>Veronica anagallis-aquatica</i>	blue water-speedwell			
<i>Veronica beccabunga</i>	Brooklime			
<i>Veronica catonata</i>	pink water-speedwell			
<i>Veronica scutellata</i>	marsh speedwell			
<i>Viola palustris</i>	marsh violet			
<i>Wahlenbergia hederacea</i>	ivy-leaved bell-flower			

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