Cynllun Datblygu Lleol Newydd Cyngor Bwrdeistref Sirol Merthyr Tudful (2016-2031) Merthyr Tydfil County Borough Council Replacement Local Development Plan (2016 – 2031)



PAPURAU CEFNDIR | 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 to be included in the Replacement 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*¹ 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 can no longer meet SINC criteria.
- 4. All 64 SINCs have been mapped using GIS.

¹ Criteria for the Selection of Sites of Importance for Nature Conservation in the County Boroughs of Blaenau Gwent, Caerphilly, Merthyr Tydfil and Rhondda Cynon Taf (the 'Mid-Valleys Area'), Caerphilly County Borough Council, Merthyr Tydfil and Rhondda Cynon Taf County Borough Council. (2008).

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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 Deposit 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 currently 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 regional 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 Section 6 of the Environment (Wales) Act 2016 places the Biodiversity and Resilience of Ecosystems Duty on public authorities to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions, more specifically: 'a public authority must take into account the resilience of ecosystems, in particular the following aspects:
 - (a) Diversity between and within ecosystems;
 - (b) The connections between and within ecosystems;
 - (c) The scale of ecosystems;
 - (d) The condition of ecosystems (including their structure and functioning) and
 - (e) The adaptability of ecosystems.
- 2.2 In addition to this duty 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.

- 2.3 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.
- 2.4 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 nonstatutory sites.
- 2.5 With particular regard to non-statutory designations such as SINCs, 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 it that they do not preclude appropriate socio-economic activities. In addition, amongst other things paragraph 5.4.5 states that development plans 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.

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- 2.6 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.
- 2.7 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. This should be agreed with the LPA and or Local Wildlife Trust.

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 Sites² (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 Pryce¹. 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).

² 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 (SINCs).

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4.2 The criteria contained in the document were intended to be used to identify SINCs 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).

Local policy Context

- 4.1 In order to conserve the most locally important places or wildlife, 59 SINCs 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.

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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 indivdually 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 Canddate Sites, 2002), as part of the Fros-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.

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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, shown on Plan 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 sites listed below 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. <u>Gethin Forest</u> situated between Mynydd Gethin and the A470, 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, shown on Plan 2.

- III. <u>Cefn Forest</u> 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 accommodates 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, shown on Plan 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/Frridd 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, shown on Plan 4.
- V. <u>St. Tydfil Forest (West)</u> 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 & Asessment 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, shown on Plan 5.

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6. SINC Review Methodology

- 6.1 A site survey methodolgy was created to review each existing SINC (Nos. 1 & 5 60) designated in the adopted LDP and included on the 2011 Proposals Map. Given that Proposed SINC No. 4 was last surveyed in 2007, this methodology was also used to resurvey this site.
- 6.2 The methodolgy comprised a SINC Review Survey Sheet (attached, at Appendix 1) and accompanying, Habiitat and Indicator Species Tables (attached at Appenices 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 SINCs 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 SINCs 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.

Tal	Table 1:Summary Assessment – Candidate SINCs						
Co	ndidate Sites of	Importance for Nature Conservation in Merthyr Tydfil County Borough:					
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 platantion, semi natural broad leaved, wet and replanted ancient woodland, heathlnad, acid grassland, water courses, stading open water, flushes and supporting scrub, neutral grassland and fridd. The whole site qualifies as as a candidate SINC for its mosaic of habitats, which suport a divesrse range of flora and fauna.	H1, H3, H6, H7, H9, H12, H15, H16, H18, H20,H21,H22,S1,S 2,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, ffridd 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 surveyed boundary put forward as SINC.			
63	St. Tydfil Forest (East)	Large area of habitat mosaics, which includs significant coverage of woodland, all of which support ancient woodland indicator species as well as heathland and acid grasland throughout. Bird sepcies present include the marsh tit and barn owl.	H20, H1, H3, H4, H9, H10, H18, H21 & S1.	2013 surveyed boundary put forward as SINC.			
64	St. Tydfil Forest (West)	Meet SINC criteria, for its mosaic of extensive conifer wodlands, 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 surveyed boundary put forward as SINC.			

	Table 2: Summary Assessment – Existing SINCs 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 arassland 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 woodled 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 ffridd 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 grassheaths. 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	Scwrfa/ (Gellideg North Fields)	Series of fields containing species-rich rhos 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.

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 (Euphydryas aurinia), Great Crested Newt (Triturus cristatus), big blue pinkgill (Entoloma bloxamii) and olive earthtonge (Microglossum olivaceum).	H1, H3, H4, H6, H7, H9, H10, H12, H15, H16, H18, H20, H21, H22	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 seminatural 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 including salmon.	H1, H4, H5, H6, H9, H15	2011 LDP SINC boundary retained.

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.	H1, H3, H4, H6, H7, H9, H10, H20, H21	2011 LDP SINC boundary retained.
18	Parc Cyfarthfa	Part of an area of mainly ornamental parkland within Merthyr Tydfil. The SINC includes seminatural 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, and outcrops with ledge communities. A small wooded pond is present and several drainage ditches cross the site.	H1, H3, H4, H6, H9 & H20.	2011 LDP SINC boundary retained.

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, H9, 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 patches and scrub, as well as ditches, streams and a woodled pond. The site is important for a range of woodland birds	H1, H3, H4, H6, H9, H16	2011 LDP SINC boundary retained.

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.	H1, H4, H6, H7, H9, H10, H12, H15, H20	2011 LDP SINC boundary retained.
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.	H1, H6, H7, H9, H10, H12, H15, H20, H22	2011 LDP SINC boundary retained.
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.	H1, H4, H6, H7, H17	2011 LDP SINC boundary retained.
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 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-	H1, H3, H4, H5, H6, H7, H9, H11, H12, H15, H16, H17, H18, H20, H21, H22	2011 LDP SINC boundary slightly amended

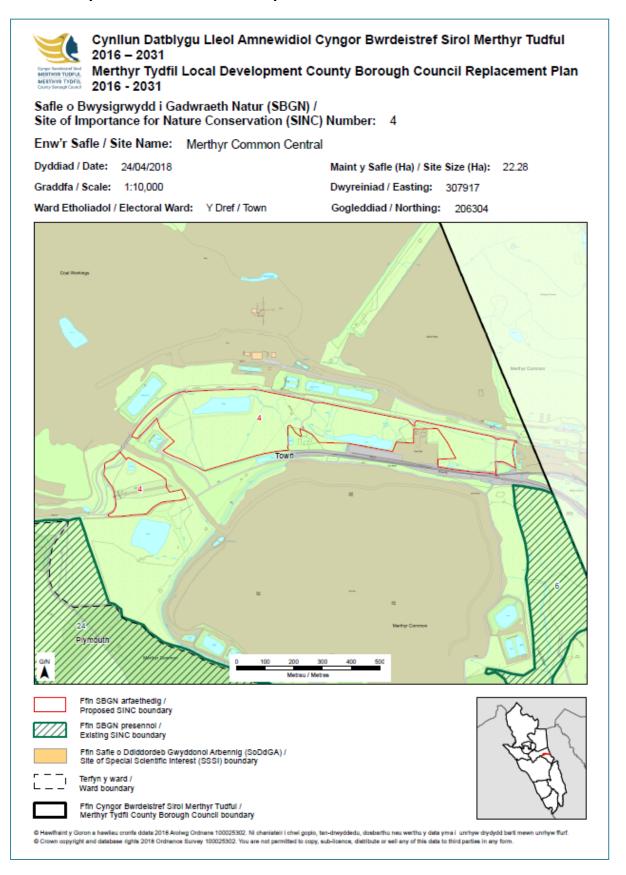
27	Caral Cours	improved grassland, but any such areas are a very minor component. Great crested newt occurs in small pools; noctule and pipstrelle bats have both been recorded. Nationally rare and scarce invertebrates are varied and common throughout the area.	111 112 117 117	0011100
37	Coed Cwm/ Cwm 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.	H1, H3, H6, H7, H9, H10, H20, H22	2011 LDP SINC boundary retained
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 bogmosses, 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 ponds and small streams are also present. The site supports numerous localised plant species, with a regionally scarce plant occuring in the acid grasslands.	H1, H3, H4, H6, H7, H9, H10, H12, H15, H16, H20, H21, H22	2011 LDP SINC boundary retained.
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.
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.

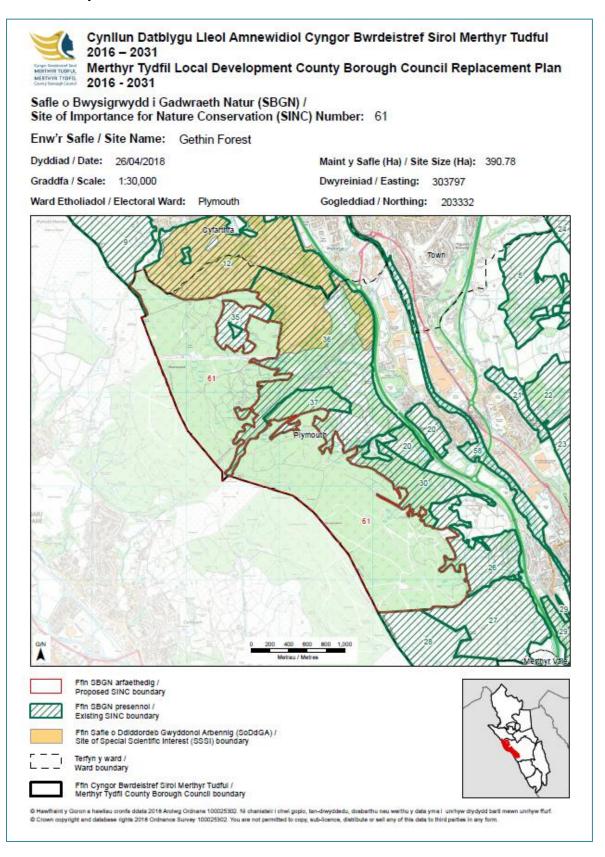
49	Mynydd Goetre- Coed	Hill-top area of dry heathland, acid grassland, grass-heath and bracken stands. Also some disused quarries and associated scree with scattered scrub and young trees. Includes a large area of colliery spoil to the north supporting mainly species-rich neutral grassland communities.	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.
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. Ofter 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 SINCs 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 SINC boundary amended.

Plan 1: Proposed SINC No. 4 Merthyr Common Central



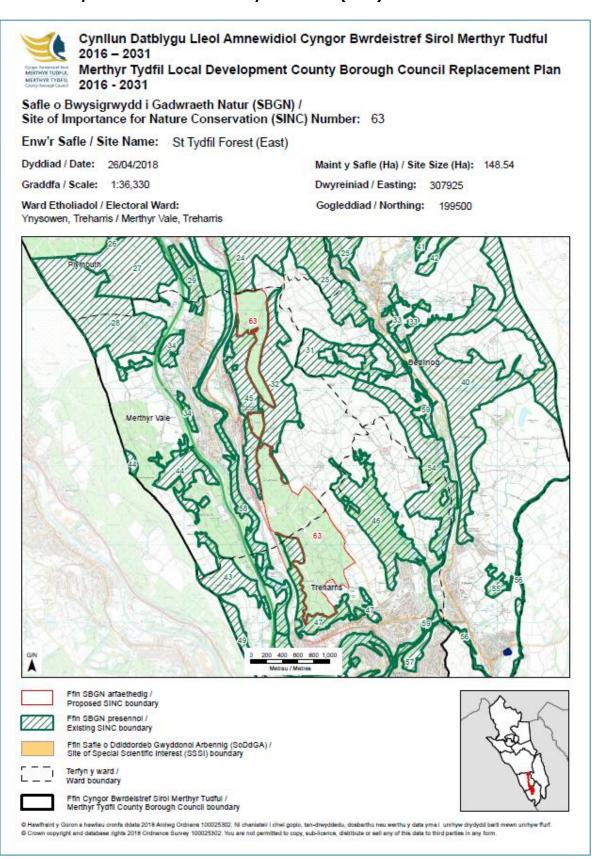
Plan 2: Proposed SINC No. 61 Gethin Forest



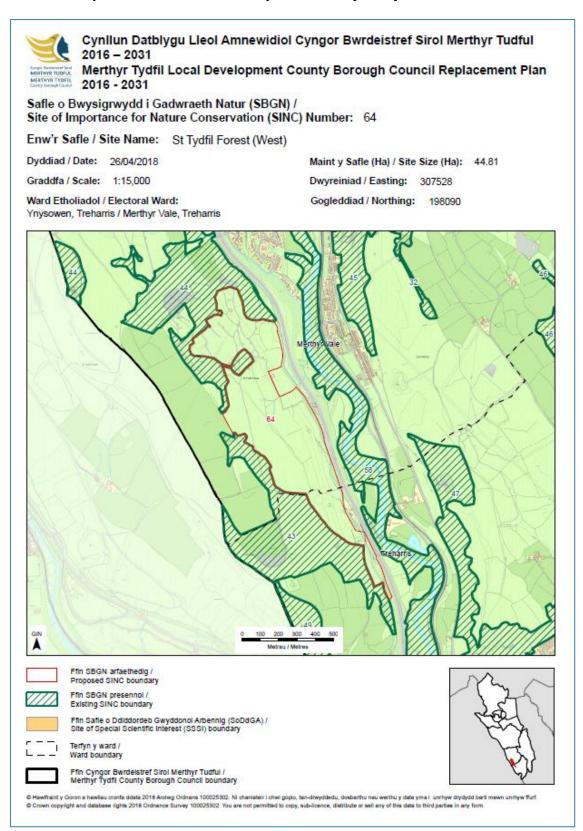
Plan 3: Proposed SINC No. 62 Cefn Forest

Cynllun Datblygu Lleol Amnewidiol Cyngor Bwrdeistref Sirol Merthyr Tudful 2016 - 2031 Merthyr Tydfil Local Development County Borough Council Replacement Plan 2016 - 2031 Safle o Bwysigrwydd i Gadwraeth Natur (SBGN) / Site of Importance for Nature Conservation (SINC) Number: 62 Enw'r Safle / Site Name: Cefn Forest Dyddiad / Date: 26/04/2018 Maint y Safle (Ha) / Site Size (Ha): 47.49 Graddfa / Scale: 1:15,000 Dwyreiniad / Easting: 306447 Ward Etholiadol / Electoral Ward: Ynysowen / Merthyr Vale Gogleddiad / Northing: 199325 Ffin SBGN arfaethedig / Proposed SINC boundary Ffin SBGN presennol / Existing SINC boundary Ffin Safle o Ddiddordeb Gwyddonol Arbennig (SoDdGA) / Site of Special Scientific Interest (SSSI) boundary Terfyn y ward / Ward boundary Ffin Cyngor Bwrdeistref Sirol Merthyr Tudful / Merthyr Tydfil County Borough Council boundary © Hawffraint y Goron a hawless cronfe didate 2018 Archag Ordnans 100025502. Ni charieteir i chiel goplo, tan-drwyddedu, dosbarthu neu werthu y date yma i sunrhyw dlydydd barti mewn sunrhyw ffurf. © Crown copyright and detabase lights 2018 Ordnance Survey 100025302. You are not permitted to copy, sub-licence, distribute or sell enry of this date to third perties in any form.

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



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



BACKGROUND PAPER: REVIEW OF SITES OF IMPORTANCE FOR NATURE CONSERVATION

APPENDIX 1: SINC REVIEW SURVEY SHEET

Sites of Importance for Nature Conservation (SINC) Review					
SURVEY SHEET					
SINC Name (English language	e):	Welsh Language and/or local SINC Name:			
As shown on Appendix 1 of the adopted Merthyr Tydfil I August 25th May 2011.	ocal Development Plan –				
SINC No:	Grid Reference	e:	S	Site Area:	
As shown on Appendix 1 of the adopted LDP– August 25th May 2011	As shown on Appendix 1 August 25th May 2011	of the adopted LE	DP- A	s shown on the atta	ached plan
Main habitat feature/s:					
				See remar	rks on original summary sheet.
SINC Habitat identified in origi	nal survey:				
H1 H2 H3	H4	H5	Не	6 H7	7
H8 H9 H10	H11	H12	2 H1	15 H1	16
H17 H18 H19	H20	H21	l H2	22	
As identified in Criteria for the Selection of Sites of Impo Cynon Taff (the 'Mid-Valleys Area') - 2008.	ortance for Nature Conserva	tion in the County	Boroughs of Bla	enau Gwent, Caerphilly	lly, Merthyr Tydfil and Rhondda
Selection Criteria met for each	habitat includir	ng indicate	or specie	s present on	site:
(Cut and paste from attached Habitats Cri	teria table and attach	completed I	ndicator Spe	cies tables where	e relevant):
Н	Н		F	ł	
Are there any significant chang	ges to the SINC	?	YES NO		NO
If yes what are they?(Include deta	ils of any specific hab	oitat loss)		·	
Is there an overall loss of habit	tat? YES	3			NO
	If ye	s, What is	the net los	ss?SQI	М
Are boundary changes require	d?		YES	N	NO
(If yes illustrate on attached plan)					
Does the site still meet SINC of	ria?	YES	N	NO	
Additional Notes:					
Validation surveyor/s:				Date of Su	rvey:

BACKGROUND PAPER: REVIEW OF SITES OF IMPORTANCE FOR NATURE CONSERVATION

Appendix 2: HABITAT CRITERIA TABLE

Sites	of Importance for	r Nature Conservation (SINC) Review
HABIT	TAT CRITERIA TABL	E (Criteria for the Selection of SINCs in the Mid-Valleys Area)
H1	WOODLANDS	 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: Semi-natural woodland vascular plants). 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	 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.
НЗ	SCRUB COMMUNITIES	 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. (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).
H4	NEUTRAL GRASSLANDS	 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: Seminatural woodland vascular plants and ≥ 0.2 ha. All stands of species-rich atypical NVC neutral grassland, with at least 8 species from Table 1: Seminatural woodland vascular plants ≥ 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: Indicator Species for Neutral Grasslands- any grassland site which supports a population of rare or very restricted species in the Mid-Valleys area: wood bitter-vetch (Vicia orubus); moonwort (Botrychium linaria); soft-leaved sedge (Carex

		montana); meadow saffron (Colchium autumnale); dyer's greenweed (Genista
		tinctoria); adder's-tongue fern (Ophioglossum vulgatum); green winged orchid (Orchis
		morio); greater butterfly orchid (Platanthera chlorantha); meadow saxifrage (Saxifraga
		granulata) and orcommon meadow-rue (Thalictrum flavum).
H5	CALCAREOUS	All examples of unimproved calcareous grassland ≥ 0.2 ha.
	GRASSLANDS	• 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	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 and of a larger QINO decise of the provided by the first area of the provided by the
		integral part of a larger SINC designation or complex habitat mosaics or fulfil a strategic
		linking function between SINC.
H7	MARSHY	All areas of: blunt-flowered rush - marsh bedstraw fen meadow (M22), purple moor-grass
	GRASSLANDS	- 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</i>
		Species for Marshy Grasslands 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</i>
		Species for Marshy Grasslands and all stands of M25 (8 species from Table 5: Indicator
		Species for Marshy Grasslands) ≥ 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	All examples of floodplain grassland, which are extensive, subject to frequent inundation
ПО	GRAZING MARSH	and/or support semi/unimproved grassland communities or populations of characteristic
	ONAZINO MANON	
	FEDIDO	species.
H9	FFRIDD	All large stands of ffridd ≥ 10 ha.
	COMMUNITIES	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 SINCs.
		(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).
H10	HEATHLANDS AND	All examples of unmodified wet heathland and wet grass-heath, and where cross-leaved
	GRASS-HEATH	heath is still present even though reduced in its cover due to grazing pressure.
	COMMUNITIES	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.
		(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,

		and amphibians in wet heath).
H11	FENS, REEDBEDS AND OTHER SWAMPS	 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. (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).
H12	BOG HABITATS AND FLUSHES	 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. (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).
H15	WATERCOURSES	 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. (The designation of watercourses will be supported by the presence of associated species e.g. bryophytes and lichens, flora, invertebrates, amphibians, birds and mammals).
H16	STANDING OPEN WATER	 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	 All sites that support close networks of interlinked hedges of which the majority (i.e. ≥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,

H18	MINERAL SPOIL TIPS AND OTHER POST- INDUSTRIAL LAND	ponds or other locally important habitats, and/or are known to support rare or protected species (see <i>Species Criteria</i>). (The designation of hedgerow SINC may be supported by the presence of associated species e.g. fungi, flora, invertebrates, reptiles, amphibians, birds and mammals). • 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). (The designation mineral spoil sites may be supported by the presence of associated appoints of a funcil floral invertebrates continue appoint to the presence of associated appoints of a funcil floral invertebrates continue appoints of and mammals).
H19	SPECIES-RICH	species e.g. fungi, flora, invertebrates, reptiles, amphibians, birds and mammals). All examples of fields that contain 8 or more species listed in Table 7: <i>Indicator Species for</i>
	TILLAGE FIELDS	Tillage Fields and Margins.
	AND MARGINS	(The designation of SINC may be supported by the presence of associated species e.g.
		fungi, flora, invertebrates, reptiles, amphibians, birds and mammals).
H20	MOSAIC HABITATS AND COMMON LAND	 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 (≥25%) of the total area. A 'block designation' of extensive areas of open countryside where semi-natural upland features predominate. (The designation of mosaic SINCs may be supported by the presence of associated species).
H21	ROCK EXPOSURES	 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. (All rock exposure sites may also qualify as geological RIGS).
H22	OTHER FEATURES	 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 unsurfaced 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.

BACKGROUND PAPER: REVIEW OF SITES OF IMPORTANCE FOR NATURE CONSERVATION

APPENDIX 3: INDICATOR SPECIES TABLES

Scientific Name	Common Name	Date recorded	Date recorded	Date recorded
Acer campestre	field maple			
Adoxa moschatellina	moshatel			
Allium ursinum	ramsons			
Anemone nemorosa	wood anenome			
Aquilega vulgaris	columbine			
Blechnum spicant	hard fern			
Bromus ramosus	hairy brome			
Calluna vulgaris	heather			
Campanula trachelium	nettle-leaved beliflower			
Carex laevigata	smooth-stalked sedge			
Carex pallescens	pale sedge			
Carex pendula	pendulous sedge			
Carex remota	distant sedge			
Carex strigosa	thin-spiked wood-sedge			
Carex sylvatica	wood sedge			
Chrysosplenium alternifolium	alternate-leaved golden-saxifrage			
Chrysosplenium oppositifolium	opposite-leaved golden-saxifrage			
Conopodium majus	pignut			
Convallaria majalis	lily-of-the-valley			
Corydalis claviculata	climbing corydalis			
Daphne laureola	spurge laurel			
Daphne mezereon	mezeron			
Deshampsia flexuosa	wavy hair grass			
Dryopteris affinis	scaly male fern			
Dryopteris aemula	hay-scented buckler fern			
Elymus caninus	bearded couch-grass			
Epipactis helleborine	broad-leaved helleborine			
Equisetum sylvaticum	wood horsetail			
Euonymus europaeus	spindle			
Euphorbia amygdaloides	wood spurge			
Festuca gigantea	giant fescue			
Frangula alnus	alder buckthorn			
Galium odoratum	sweet woodruff			
Geum rivale	water avens			
Gymnocarpium dryopteris	oak fern			
Hyacinthoides non-scripta	bluebell			
Hymenophyllum tunbridgense	Tunbridge filmy-fern			
Hymenophyllum wilsonii	Wilson's filmy fern			
Hypericum androsaemum	tutsan			
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Lamiastrum galeobdolon	yellow archangel		
Lathraea squamaria	toothwort		
Luzula forsteri	southern woodrush		
Luzula pilosa	hairy woodrush		
Luzula sylvatica	great woodrush		
Lysimachia nemorum	yellow pimpernel		
Malus sylvestris	crab apple		
Melampyrum pratense	common cow-wheat		
Melica uniflora	wood mellick		
Melittis melissophyllum	bastard balm		
Mercurialis perennis	dog's mercury		
Milium effusum	wood millet		
Moehringia trinervum	three-nerved sandwort		
Neottia nidus-avis	bird's nest orchid		
Orchis mascula	early purple-orchid		
Oxalis acetosella	wood sorrel		
Paris quadrifolia	herb-Paris		
Platanthera chlorantha	greater butterfly orchid		
Poa nemoralis	wood meadow grass		
Polygonatum multiflorum	solomon's seal		
Polystichum aculeatum	hard shield fern		
Polystichum setiferum	soft shield fern		
Populus tremula	Aspen		
Potentilla sterilis	barren strawberry		
Primula vulgaris	Primrose		
Prunus padus	bird cherry		
Quercus petraea	sessile oak		
Ranunculus auricomus	goldilocks buttercup		
Rhamnus catharticus	Buckthorn		
Ribes rubrum	Redcurrant		
Sanicula europaea	Sanicle		
Scirpus sylvaticus	wood club-rush		
Scrophularia nodosa	Figwort		
Sorbus torminalis	wild service		
Stellaria neglecta	greater chickweed		
Stellaria nemorum	wood stichwort		
Taxus baccata	Yew		
Tilia cordata	small-leaved lime		
Ulmus glabra	wych elm		
Vaccinium myrtillus	Bilberry		
Veronica montana	wood speedwell		
Viburnum opulus	guelder rose		
Vicia sylvatica	wood vetch		
Viola reichenbachiana	pale dog violet	T	

Scientific Name	Common Name	Date recorded	Date recorded	Date recorded
Achillea ptarmica	sneezewort	Date recorded	Date recorded	Data rosorasa
Agrimonia eupatoria	agrimony			
Agrimonia procera	fragrant agrimony			
Ajuga reptans	bugle			
Alchemilla glabra	lady's-mantle			
Alchemilla filicaulis	lady's-mantle			
Alchemilla xanthochlora	lady's-mantle			
Allium vineale	wild onion			
Botrychium lunaria	moonwort			
Briza media	quaking grass			
Bromus commutatus	meadow brome			
Bromus racemosus	smooth brome			
Campanula rotundiflora	harebell			
Cardamine pratensis	cuckoo flower			
Carex caryophyllea	spring sedge			
Carex divulsa	grey sedge			
Carex flacca	glaucous sedge			
Carex montana	soft-leaved sedge			
Carex muricata	prickly sedge			
Carex nigra	common sedge			
Carex panicea	carnation sedge			
Carex spicata	spiked sedge			
Centaurea nigra	common knapweed			
Centaurium erythraea	common centuary			
Cirsium dissectum	meadow thistle			
Colchicum autumnale	meadow saffron			
Conopodium majus	pignut			
Dactylorhiza spp.	spotted orchids			
Danthonia decumbens	heath grass			
Erophila verna	whitlow grass			
Euphrasia officinalis agg.	eyebright			
Festuca arundinacia	tall fescue			
Festuca pratensis	meadow fescue			
Galium verum	lady's bedstraw			
Genista tinctoria	dyer's greenweed			
Geranium pratense	meadow crane's-bill			
Helictotrichon pubescens	downy oat-grass			
Hordeum secalinum	meadow barley			
Hypericum hirsutum	hairy St John's-wort			
Hypericum maculatum	imperforate St John's-wort			
Hypericum perforatum	perforate St John's-wort			

Knautia arvensis	field scabious		
Koeleria macrantha	crested hair grass		
Lathyrus linifolius	bitter-vetch		
Lathyrus nissolia	grass vetchling		
Lathyrus pratensis	meadow vetchling		
Leontodon hispidus	rough hawkbit		
Leontodon saxatilis	lesser hawkbit		
Leucanthemum vulgare	oxeye daisy		
Linum catharticum	fairy flax		
Listera ovata	common twayblade		
Lotus corniculatus	common bird's-foot-trefoil		
Lotus glaber	narrow-leaved bird's-foot-trefoil		
Luzula campestris	field wood-rush		
Narcissus pseudonarcissus	wild daffodil		
Ononis repens	common restharrow		
Ononis spinosa	spiny restharrow		
Ophioglossum vulgatum	adder's-tongue		
Orchis mascula	early-purple orchid		
Orchis morio	green-winged orchid		
Pedicularis sylvatica	lousewort		
Petroselinum segetum	corn parsley		
Phleum bertolonii	small cat's-tail		
Pilosella officinarum	mouse-ear hawkweed		
Pimpinella saxifraga	burnet-saxifrage		
Plantago media	hoary plantain		
Platanthera chlorantha	greater butterfly-orchid		
Poa angustifolia	narrow-leaved meadow-grass		
Poa humilis	spreading meadow-grass		
Polygala vulgaris	common milkwort		
Polygonum bistorta	common bistort		
Potentilla anglica	trailing tormentil		
Potentilla erecta	tormentil		
Primula veris	cowslip		
Ranunculus bulbosus	bulbous buttercup		
Rhinanthus minor	yellow rattle		
Sanguisorba minor	salad burnet		
Sanguisorba officinalis	greater burnet		
Saxifraga granulata	meadow saxifrage		
Saxifraga tridactylites	rue-leaved saxifrage		
Senecio erucifolius	hoary ragwort		
Serratula tinctoria	saw-wort		
Silaum silaus	pepper-saxifrage		
Sison amomum	stone parsley		
Stachys officinalis	betony		
Stellaria graminea	lesser stitchwort		
Succisa pratensis	devil's-bit scabious		

Thalictrum flavum	common meadow-rue	
Thymus pulegioides	large thyme	
Torilis nodosa	knotted hedge-parsley	
Trifolium fragiferum	strawberry clover	
Trifolium medium	zig-zag clover	
Trifolium micranthum	slender trefoil	
Trifolium pratense	red clover	
Trifolium scabrum	rough clover	
Trifolium striatum	knotted clover	
Trisetum flavescens	yellow oat-grass	
Veronica officinalis	heath speedwell	
Vicia cracca	tufted vetch	
Vicia orobus	wood bitter-vetch	
Viola riviniana	common dog-violet	
Vulpia bromoides	squirreltail fescue	

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Sites of Importance for Nature Conservation (SINC) Review						
Table 3: Indicator Species for Calcareous Grasslands						
Scientific Name	Common Name	Date recorded	Date recorded	Date recorded		
Allium vineale	wild onion					
Aloina aloides						
Anacamptis pyramidalis	pyramidal orchid					
Anthyllis vulneraria	kidney vetch					
Arabis hirsuta	hairy rock-cress					
Asperula cynanchica	squincywort					
Blackstonia perfoliata	yellow-wort					
Brachypodium pinnatum	tor grass					
Briza media	quaking grass					
Bromopsis erecta	upright brome					
Campanula glomerata	clustered bellflower					
Campanula rotundiflora	harebell					
Campanula trachelium	nettle-leaved bellflower					
Carex caryophyllea	spring sedge					
Carex flacca	glaucous sedge					
Carex montana	soft-leaved sedge					
Carlina vulgaris	carline thistle					
Centaurea nigra	common knapweed					
Centaurea scabiosa	greater knapweed					
Centaurium erythraea	common centuary					
Cirsium acaule	dwarf thistle					
Cirsium eriophorum	woolly thistle					
Cirsium tuberosum	tuberous thistle					
Clinopodium acinos	basil thyme					
Clinopodium ascendens	common calamint					
Clinopodium calamintha	lesser calamint					
Clinopodium vulgare	wild basil					

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Coeloglossum viride	frog orchid		
Crepis biennis	rough hawk's-beard		
Cruciata laevipes	crosswort		
Daucus carota	wild carrot		
Ditrichum flexicaule			
Ditrichum gracile			
Echium vulgare	viper's-bugloss		
Erophila verna	whitlow grass		
Festuca ovina agg.	sheep's fescue		
Galium mollugo	hedge bedstraw		
Galium sterneri	limestone bedstraw		
Galium verum	lady's bedstraw		
Genista tinctoria	dyer's greenweed		
Gentianella amarella	autumn gentian		
Geranium columbinum	long-stalked crane's-bill		
Helianthemum nummularium	common rock-rose		
Helictotrichon pratense	meadow oat-grass		
Helictotrichon pubescens	downy oat-grass		
Hippocrepis comosa	horseshoe vetch		
Homalothecium lutescens			
Hypericum hirsutum	hairy St John's-wort		
Hypericum montanum	pale St John's-wort		
Hypericum perforatum	perforate St John's-Wort		
Inula conyzae	ploughman's spikenard		
Knautia arvensis	field scabious		
Koeleria macrantha	crested hair-grass		
Lathyrus nissolia	grass vetchling		
Leiocolea turbinata			
Leontodon hispidus	rough hawkbit		
Leontodon saxatilis	lesser hawkbit		
Linum catharticum	fairy flax		
Listera ovata	twayblade		
Lotus corniculatus	common bird's-foot trefoil		
Medicago lupulina	black medick		
Ononis repens	common restharrow		
Ononis spinosa	spiny restharrow		
Ophioglossum vulgatum	adder's-tongue		
Ophrys apifera	bee orchid		
Orchis mascula	early-purple orchid		
Orchis morio	green-winged orchid		
Origanum vulgare Pastinaca sativa	wild narsnin		
	wild parsnip		
Petroselinum segetum	corn parsley		
Picris hieracioides	hawkweed oxtongue		
Pilosella officinarum	mouse-ear hawkweed		
Pimpinella saxifraga	burnet-saxifrage		

Plantago media	hoary plantain		
Platanthera chlorantha	greater butterfly-orchid		
Poa angustifolia	narrow-leaved meadow-grass		
Poa humilis	spreading meadow-grass		
Polygala vulgaris	common milkwort		
Potentilla sterilis	barren strawberry		
Primula veris	cowslip		
Ranunculus bulbosus	bulbous buttercup		
Rhodobryum roseum			
Sagina nodosa	knotted pearlwort		
Sanguisorba minor	salad burnet		
Saxifraga hypnoides	mossy saxifrage		
Saxifraga tridactylites	rue-leaved saxifrage		
Scabiosa columbaria	small scabious		
Senecio erucifolius	hoary ragwort		
Serratula tinctoria	saw-wort		
Sherardia arvensis	field madder		
Sison amomum	stone parsley		
Spiranthes spiralis	autumn lady's-tresses		
Thalictrum minus	lesser meadow-rue		
Thymus polytrichus	wild thyme		
Thymus pulegioides	large thyme		
Torilis nodosa	knotted hedge-parsley		
Trichostomum brachydontium			
Trichostomum crispulum			
Trifolium campestre	hop trefoil		
Trifolium scabrum	rough clover		
Trifolium striatum	knotted clover		
Trisetum flavescens	yellow oat-grass		
Veronica arvensis	wall speedwell		
Viola hirta	hairy violet		
Viola riviniana	common dog-violet		
Vulpia bromoides	squirreltail fescue		
Weissa controversa			
Weissa brachycarpa			
Weissa microstoma			

Sites of Importance for Nature Conservation (SINC) Review				
Table 4: Indicator Specie	es for Acid Grasslands			
Scientific Name	Common Name	Date recorded	Date recorded	Date recorded
Agrostis curtisii	bristle bent			
Agrostis vinealis	brown bent			
Aira caryophyllea	silver hair-grass			
Aira praecox	early hair-grass			
Botrychium lunaria	moonwort			
Calluna vulgaris	ling heather			

Campanula rotundiflora	harebell			
Carex caryophyllea	spring sedge			
Carex pilulifera	pill sedge			
Carex muricata	prickly sedge			
Cirsium dissectum	meadow thistle			
Conopodium majus	pignut			
Dactylorhiza maculata	heath spotted-orchid			
Danthonia decumbens	heath grass			
Deschampsia flexuosa	wavy hair-grass			
Dicranum scoparium	1			
Erica cinerea	bell-heather			
Erophila verna	whitlow grass			
Festuca ovina	sheep's fescue			
Galium saxatile	heath bedstraw			
Hieracium spp	hawkweed spp			
Hylocomium splendens				
Hypericum humifusum	trailing St John's-wort			
Hypericum pulchrum	slender St John's-wort			
Jasione montana	sheep's bit			
Juncus squarrosus	heath rush			
Lathyrus linifolius	bitter vetch			
Luzula multiflora	heath wood-rush			
Lycopodium clavatum	stag's-horn clubmoss			
Moenchia erecta	upright chickweed			
Nardus stricta	mat grass			
Ophioglossum vulgatum	adder's-tongue			
Ornithopus perpusillus	bird's-foot			
Pedicularis sylvatica	lousewort			
Pilosella officinarum agg.	mouse ear-hawkweed			
Pleurosium schreberi				
Polygala serpyllifolia	heath milkwort			
Polytrichum formosum				
Potentilla anglica	trailing tormentil			
Potentilla erecta	tormentil			
Rumex acetosella	sheeps sorrel			
Senecio sylvaticus	heath groundsel			
Solidago virgaurea	goldenrod			
Spergularia rubra	sand spurrey			
Stachys officinalis	betony			
Succisa pratensis	devil's-bit scabious			
Trifolium scabrum	rough clover			
Trifolium striatum	knotted clover			
Vaccinium myrtillus	bilberry			
Veronica officinalis	heath speedwell			
Viola canina	heath dog-violet			
	mountain pansy		+	+

Vulpia bromoides squirreltail fescue			
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Scientific Name	Common Name	Date recorded	Date recorded	Date recorded
Achillea ptarmica	Sneezewort			
Agrostis canina	velvet bent			
Agrostis curtisii	bristle bent			
Anagallis tenella	bog pimpernel			
Angelica sylvestris	wild angelica			
Apium graveolens	Celery			
Apium inundatum	lesser marshwort			
Apium nodiflorum	fool's-water-cress			
Bidens cernua	nodding bur-marigold			
Bidens tripartite	trifid bur-marigold			
Briza media	quaking grass			
Calamagrostis epigejos	wood small-reed			
Caltha palustris	marsh marigold			
Cardamine pratensis	cuckoo flower			
Carex acuta	slender tufted-sedge			
Carex acutiformis	lesser pond-sedge			
Carex binervis	green-ribbed sedge			
Carex disticha	brown sedge			
Carex echinata	star sedge			
Carex flacca	glaucous sedge			
Carex hostiana	tawny sedge			
Carex laevigata	smooth-stalked sedge			
Carex montana	soft-leaved sedge			
Carex nigra	common sedge			
Carex ovalis	oval sedge			
Carex pallescens	pale sedge			
Carex panicea	carnation sedge			
Carex paniculata	greater tussock-sedge			
Carex pendula	pendulous sedge			
Carex pseudocyperus	cyperus sedge			
Carex pulicaris	flea sedge			
Carex riparia	greater pond-sedge			
Carex rostrata	bottle sedge			
Carex vesicaria	bladder sedge			
Carex viridula	common yellow-sedge			
Carum verticillatum	whorled caraway			
Cirsium dissectum	meadow thistle			
Dactylorhiza spp.	spotted or marsh orchids			
Dipsacus pilosus	small teasel			
Drosera rotundifolia	round-leaved sundew			
Dryopteris carthusiana	narrow buckler-fern			
Eleocharis spp.	spike-rush spp.			
Epipactis palustris	marsh helleborine			

cientific Name	Common Name	Date recorded	Date recorded	Date recorded
Equisetum palustre	marsh horsetail			
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Equisetum sylvaticum	wood horsetail			
Equisetum telemateia	great horsetail			
Erica tetralix	cross-leaved heath			
Friophorum angustifolium	common cottongrass			
riophorum latifolium	broad-leaved cottongrass			
Eupatorium cannabinum	hemp agrimony			
Filipendula ulmaria	Meadowsweet			
Galium palustre	common marsh-bedstraw			
Galium uliginosum	fen bedstraw			
Genista anglica	petty whin			
Geum rivale	water avens			
Glyceria declinata	small sweet-grass			
Glyceria fluitans	floating sweet-grass			
Glyceria maxima	reed sweet-grass			
Glyceria notata	plicate sweet-grass			
lydrocotyle vulgaris	marsh pennywort			
Hypericum elodes	marsh St John's-wort			
Hypericum tetrapterum	square-stalked St John's-wort			
ris pseudacorus	yellow flag-iris			
solepis setacea	bristle club-rush			
luncus acutiflorus	sharp-flowered rush			
luncus articulatus	jointed rush			
luncus conglomeratus	compact rush			
luncus squarrosus	heath rush			
luncus subnodulosus	blunt-flowered rush			
otus uliginosus	greater bird's-foot-trefoil			
uzula multiflora	heath wood-rush			
ychnis flos-cuculi	ragged robin			
ycopus europaeus	Gypsywort			
ysimachia nemorum	yellow pimpernel			
ysimachia nummularia	creeping-jenny			
ysimachia vulgaris	yellow loosestrife			
ythrum portula	water purslane			
ythrum salicaria	purple loosestrife			
Mentha aquatica	water mint			
Menyanthes trifoliata	Bogbean			
Molinia caerulea	purple moor-grass			
Montia fontana	Blinks			
Nyosotis laxa	tufted forget-me-not			
Nyosotis scorpioides	water forget-me-not			
Nyosotis secunda	creeping forget-me-not			
Nyrica gale	bog myrtle			
larthecium ossifragum	bog asphodel			
Denanthe aquatica	fine-leaved water-dropwort			
Denanthe crocata	hemlock water-dropwort			
Denanthe fistulosa	tubular water-dropwort			
Osmunda regalis	royal fern			
Pedicularis palustris	marsh lousewort			
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able 5: Indicator Species for Scientific Name	Common Name	Date recorded	Date recorded	Date recorded
Persicaria bistorta	common bistort			
Phalaris arundinacea	reed canary-grass			
Phragmites australis	common reed			
Pinguicula vulgaris	common butterwort			
Polygala serpyllifolia	heath milkwort			
Potentilla erecta	Tormentil			
Potentilla palustris	marsh cinquefoil			
Pulicaria dysenterica	common fleabane			
Ranunculus flammula	lesser spearwort			
Ranunculus sceleratus	celery-leaved buttercup			
Rumex conglomeratus Rumex hydrolapathum	clustered dock water dock			
Sagina nodosa	knotted pearlwort			
Salix repens	creeping willow			
Scirpus sylvaticus	wood club-rush			
Scrophularia auriculata	water figwort			
Scutellaria galericulata	Skullcap			
Scutellaria minor	lesser skullcap			
Senecio aquaticus	marsh ragwort			
Serratula tinctoria	saw-wort			
Sibthorpia europaea	cornish moneywort			
Stachys officinalis	Betony			
Stachys palustris	marsh woundwort			
Stellaria alsine	bog stitchwort			
Succisa pratensis	devil's-bit scabious			
Thalictrum flavum	common meadow-rue			
Thelypteris palustris	marsh fern			
Trichophorum cespitosum	Deergrass			
Triglochin palustre	marsh arrowgrass			
Trollius europaeus	globeflower			
Vaccinium oxycoccos	Cranberry			
Valeriana dioica	marsh valerian			
Valeriana officinalis	common valerian			
Veronica anagallis-aquatica	blue water-speedwell			
Veronica beccabunga	Brooklime			
Veronica catonata	pink water-speedwell			
Veronica scutellata	marsh speedwell			
Viola palustris	marsh violet			
Wahlenbergia hederacea	ivy-leaved bell-flower			1

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