

**Bryn Recycling - MRF Yard  
Extension and Enhanced  
Landscape Bund**

Ecological Assessment to inform Pre-  
Application Consultation

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<b>Client</b>	Bryn Aggregates Ltd
<b>Project</b>	Bryn Recycling - MRF Yard Extension, Ecological Assessment
<b>Version</b>	FINAL
<b>Project number</b>	P22-001 Bryn MRF Yard Extension Ecological Assessment

	<b>Name</b>	<b>Position</b>	<b>Date</b>
<b>Originated and issued to client</b>	James Gillespie	Director	31 March 2022

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## 1 Introduction

- 1.1 This ecological assessment of a proposed extension of the materials recycling facility (MRF) at Gelliagaerwellt Uchaf Farm in Caerphilly was commissioned by the Bryn Group.

### Description of project

- 1.2 The proposal is for an increase in the area of hardstanding of the MRF yard. There will be no increase in overall processing beyond the limits set by existing Environmental Permits. The increased hardstanding area will be contained by a landscape bund which will extend the established bund around the MRF.
- 1.3 The plan is shown on JPCE Ltd drawing BRL-MRFYD-2021-002- Rev F., which shows the boundary of the planning application area (referred to as “the Site” in this report).
- 1.4 A wooded bund or landscape mound will be created to the west of the existing MRF, with drains carrying surface water across the bund and feeding an interceptor drain at the toe of the bund. Water from here will enter a surface water runoff attenuation lagoon before entering the stream that runs along the western boundary of the Site. A new MRF yard water storage lagoon is proposed at the top of the bund, as well as a water tank, and reed beds in the north of the Site.

### Site description

- 1.5 The MRF is south of the Gelligaer Road between Gelligaer and Nelson, at Gelliagaerwellt Uchaf Farm. The MRF is a working site and vegetation is limited to small patches of scrub and colonising tall ruderal habitats. The proposed extension is to the west of the MRF. Habitats in the extension area are primarily agriculturally improved grassland, small patches of tall ruderal vegetation, bare spoil and spoil with colonising weedy growth. The southern boundary is marked in part by a fence line and inside of this is a small, incised watercourse approximately 70 m in length that drains into the stream that follows the western / north-western boundary of the extension area.
- 1.6 A fence marking the extent of the improved grassland broadly follows the stream and on the west / north-west of this is broadleaved woodland. This is a non-statutory Site of Importance for Nature Conservation and, in part, ancient woodland.

### Scope and purpose of this report

- 1.7 This ecological assessment provides information to support a Pre-Application Consultation for a proposed planning submission to Caerphilly County Borough Council (CCBC).
- 1.8 It describes the ecological interest of the Site and its surrounds and provides an assessment of the significance of the ecological impacts of the proposed development.

## 2 Methods

### Desk study

- 2.1 South-East Wales Biodiversity Records Centre (SEWBRc) was asked on 17 March 2022 to provide records of non-statutory designated sites and records of protected/notable species within 2 km of the Site. Records of most relevance to the proposed development are referred to in the results section of this report; detailed information from SEWBRc can be provided on request.
- 2.2 The presence of statutory designated sites of nature conservation interest within 2 km of the Site boundary was established using the Magic website<sup>1</sup>. Aerial photographs and mapping of the Site<sup>2, 3</sup> and its surroundings were reviewed to identify ponds within 250m and assess the landscape context of the Site.
- 2.3 A review of the Ecological Impact Assessment produced by BSG Ecology for the proposed extension of the nearby Bryn Quarry<sup>4</sup> was also undertaken.

### Field survey

- 2.4 On 13 January 2022 an extended Phase 1 Habitat survey of the Site was undertaken. All habitats were mapped using standard methods (JNCC, 2010), and any signs of protected or rare species, or suitable habitats for such species, were identified. Adjacent habitats such as the woodland and stream were looked over.

### Consideration of potential limitations

- 2.5 All parts of the Site west of the existing MRF lagoons and the existing spoil bunds were walked over. The remaining parts of the Site were viewed using binoculars. The remaining land is very sparsely vegetated, and is a mix of tipped materials, hard standing and patchy small stands of scrub and tall ruderal vegetation. The lack of access to the eastern-most parts of the Site is noted but as this is an active recycling facilities yard with limited vegetation this is not considered to be a limitation on the conclusions of this assessment.
- 2.6 The survey was undertaken in January which is outside the optimum time period for botanical and habitat surveys. However, the Site consists almost entirely of grassland that has a very low herb content and an almost constant presence of perennial rye-grass *Lolium perenne* and is clearly agriculturally improved. Other habitats that are likely to be affected by the proposals are very limited in extent and very common in nature (tall ruderal vegetation and low-growing colonising vegetation on the older parts of material that has already been tipped). No significant timing constraints are identified.

### Personnel

- 2.7 The fieldwork and report production were undertaken by James Gillespie MCIEEM. James is an ecologist with over thirty years of experience of botanical and habitat survey and ecological assessment.

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<sup>1</sup> <http://magic.defra.gov.uk/>, accessed in January and March 2022.

<sup>2</sup> Bing Maps and Google Earth Pro, accessed in January and March 2022.

<sup>3</sup> Ordnance Survey 1:25,000 scale mapping, reviewed March 2022.

<sup>4</sup> See Chapter 7 of "Bryn Quarry, Gelligaer" Environmental Statement published by Barton Wilmore

### 3 Results, Potential Impacts, Mitigation and Enhancement

#### Protected Sites

- 3.1 Nelson Bog SSSI is 500 m to the south of the Site. This SSSI is notified as an example of valley mire, including habitats such as poor fen, grassland and woodland. It is fed in part by the watercourse that runs along the western boundary of the Site. SSSIs are of National importance.
- 3.2 There is a SINC woodland to the immediate west of the Site alongside the west bank of the watercourse that runs to Nelson (LDP Policy Ref. NH 3.61, Coed Gelliau'r-gwellt, east of Llancaiach). The SINC description is reproduced in Appendix 1. The SINC woodland is also in part an ancient woodland (see Appendix 1, which shows a screenshot from the website Lle.gov.wales and indicates the extent of ancient semi-natural woodland as mapped).
- 3.3 SINC's are important at a county borough level.
- 3.4 Thirteen other SINC's are present within the 2 km search area; the next nearest are 630 m east of the Site (Waun Rydd) and 830 m west (Nant Caeach). Given the nature of the proposal and the distance to SINC's further afield, all other SINC's are scoped out of further consideration.

#### Impacts on protected sites

- 3.5 *Nelson Bog SSSI*: the watercourse along the western edge of the Site flows to the SSSI. The watercourse will not be directly affected, apart from where it will be connected to the Site drainage and water attenuation scheme. In the absence of mitigation, construction of outfall structures has potential to give rise to short-term sedimentation of the watercourse and potentially the release of particulates into the watercourse. An adverse impact on the SSSI could arise which, depending on the severity of the incident, could potentially be of national significance.
- 3.6 Indirect adverse impacts on water quality in the watercourse could arise from slippage of unconsolidated materials from the surface of the landscape mound at times of higher rainfall, which could lead to soils and other particulates polluting the watercourse, and depending on the severity of this, an adverse impact on the SSSI could arise. However, this is unlikely because of the surface water drainage and attenuation scheme.
- 3.7 Adverse impacts from other sources of pollution are unlikely given the catchment of the Site drainage and water attenuation scheme, and the construction of the landscape mound from inert materials and clean soils on which the woodland will be planted.
- 3.8 Construction of outfall structures and the construction of the landscape mound, the surface water drainage system on the face of the landscape mound, and the surface water runoff attenuation lagoon, will be controlled by implementation of a Construction Environment Management Plan and this should be made the subject of a planning condition. Implementation of the approved CEMP will provide watercourse protection measures throughout the construction phase, and the constructed surface water management system will ensure that no unconsolidated or other polluting materials end up in the watercourse (or in Nelson Bog). In addition, the proposals will be subject to mandatory sustainable drainage requirements, requiring that surface water runoff is treated to prevent adverse impacts on receiving water courses. As a result, no significant impacts on the watercourse or on Nelson Bog would be expected to arise.
- 3.9 *SINC / ancient woodland*: The mapped SINC woodland boundary and the mapped ancient woodland boundary (see Appendix 1) include land on the east of the watercourse that is within the Site planning application boundary. However, the overlapping area is not impacted by the proposed landscape mound or other works.
- 3.10 The toe of the landscape mound and the proposed surface water drainage channel will be at least 15 m from the SINC / ancient woodland boundary, and no significant impact on the SINC / ancient woodland is expected to arise. Temporary works associated with the construction of the bund may take place closer than this along the north-west toe of the landscape mound. No direct impact from

temporary work will arise from the temporary work. Short term indirect impacts from disturbance of the tree root zone or from soil compaction should be avoided, and a CEMP and construction method statement will be proposed, to be secured by condition, to ensure no significant residual impacts.

### Habitats

- 3.11 Figure 1 shows the layout of habitats, as well as the location of target notes (TN) where features are described in more detail, and the location and direction of photographs (P) both of which are referred to in the description of the Site below. Photographs are shown in Section 5.
- 3.12 A lined circular lagoon with narrow fringe of improved grassland is present on the eastern edge of the Site, outside the development boundary – see TN1 / P1. It is surrounded by net fencing. To the east (beyond the Site boundary) is plantation broadleaved woodland on a bund approximately 4m high. To the north the spoil mound within the Site is very sparsely vegetated in places on its side but otherwise almost entirely bare. P3 looks upslope towards the circular lagoon across the improved grassland.
- 3.13 The wide expanse of pasture grassland that makes up most of the Site is agriculturally improved and dominated by perennial rye-grass, with Yorkshire fog-grass *Holcus lanatus* also evident. Visible herbs are limited and include creeping thistle *Cirsium arvense*, mouse ear *Cerastium fontanum*, broadleaved dock *Rumex obtusifolius*, red clover *Trifolium pratense*, and creeping buttercup *Ranunculus repens*. The field is shown on P6 / P7, looking across the expanse of grassland which is increasingly boggy underfoot towards the bottom of the slope. No rush species or other marshy grassland indicators were recorded in the sward here. To the north-east (upslope) the soils are generally drier.
- 3.14 TN2 is a smaller area of tipped spoil over improved grassland. P2 is taken from upslope, by the circular lagoon at TN1 and shows the tipped spoil at TN2 from above. P4 looks from the stream northwards and shows the typical content of tipping in TN2.
- 3.15 TN3 is a short, incised channel up to 3 m deep, with a shallow flow of water. It is culverted upslope and at the downslope end where it joins the stream that runs to Nelson to the south-west. P5 looks downstream along the channel watercourse. No aquatic vegetation was present at time of survey. Creeping bent grass *Agrostis stolonifera* is present on wet soils and growing over wet rock. On the right bank and adjacent to the bank top is scattered scrub and tall ruderal vegetation.
- 3.16 TN4 is improved grassland that has been fenced off and left ungrazed, and is developing a sparse tall ruderal component (see P8 looking up the hill). The sward is also slightly more tussocky in this area and the wet soils are in places very heavily cut up from the movement of heavy plant.
- 3.17 The main spoil mound is at TN5 (shown on P9). Tipping is taking place within the fence line indicated on Figure 1 and there are narrow fringes of improved grassland in places around the base of the spoil. The wetter soils have been cut up around the base of the tipping by heavy vehicle movement. P13 is in the northern corner and shows the extent of tipping along the edge of the larger, dry lagoon (offsite).
- 3.18 P10, P11, and P12 look downslope to the west to the broadleaved woodland (offsite) on the far side of the stream that flows towards Nelson.
- 3.19 TN6 is two oak trees (*Quercus* sp.) in the northern corner of the field, outside of the bund formation area (see P14). Visual inspection was undertaken from the ground using binoculars and the trees were assessed for their bat roosting potential following the approach described in Collins (2016). The downslope tree has two holes at around 2.2 m on a secondary trunk, more or less south-facing. There are no signs of use by bats from the outside (staining, polishing, scratch marks, etc.) Otherwise the main trunk and major limbs appear sound. Minor limbs appear sound with little peeling of bark. The tree was assessed as having low-moderate bat roosting potential. The upslope tree appears sound on its major limbs and trunk. Some bark peeling on upper limbs may offer limited potential for occasional roosting by single bats. It has low bat roosting potential.

**Impacts on improved grassland**

- 3.20 The grassland is of low inherent conservation interest, is very common locally and throughout South Wales. It is readily re-creatable and has a low species and structural diversity. It is of importance at the level of the Site.
- 3.21 Most of the improved grassland will be lost in the creation of the landscape mound. At the toe of the mound some improved grassland may remain but in the long term this is unlikely to be grazed by stock (it will be part of a larger woodland management unit) and is likely to increase in structural and species diversity, become more tussocky, and may revert to scrub and woodland in the long term.
- 3.22 The loss of grassland is significant at the level of the Site. No mitigation for its loss is proposed.

**Impacts on watercourses**

- 3.23 The stretch of watercourse on the southern boundary of the Site is approximately 70 m long and fed by a culvert that runs under the MRF site to the east. This is a tributary of the watercourse that runs along the western boundary of the Site to Nelson. These form part of a local system of drains and streams that flow into Nelson Bog SSSI to the south, and together they are important in the local catchment context.
- 3.24 The potential for impacts on the western boundary watercourse, and mitigation, are considered above as part of the assessment of impacts on the SSSI at Nelson Bog. The short length of watercourse that emerges and flows along part of the southern boundary of the Site may be modified and incorporated into the finished Site drainage. Any work in this respect will be subject to the same pollution controls as outlined above.
- 3.25 With implementation of the measures set out above for protection of the interest of Nelson Bog SSSI, no significant adverse impact the watercourses will arise.

**Other habitats**

- 3.26 Very small patches of scrub and tall ruderal vegetation will be lost. These are very common habitats and because of their very limited extent they are assessed as being of negligible interest and are scoped out of further consideration.
- 3.27 The adjacent woodland will remain unaffected by the proposals. The landscape mound will be planted with native woodland (using canopy species such as sessile oak *Quercus petraea*, downy birch *Betula pubescens* and field maple *Acer campestre*). The band of planting between the toe of the bund ditch and the watercourse on the edge of the SINC is likely to be planted with a wet woodland mix including species such as native alder *Alnus glutinosa* and grey willow *Salix cinerea*. The creation of woodland in this location, adjacent to the ancient / SINC woodland will create a much larger local woodland block that will improve local habitat diversity and structure. This enhancement will be a positive impact in the context of the local valley and catchment.

**Protected / notable species**

- 3.28 No signs of, or potential for, protected or notable species were recorded during the Phase 1 survey, apart from in the two oak trees offsite to the north at TN6.
- 3.29 The desk study returned records for a range of protected and notable species throughout the 2 km search area. Species with potential to be affected by the proposals are considered in the text below.

**Bats**

- 3.30 The two oak trees just beyond the northern corner of the Site are described above in terms of their bat roosting potential. They will not be affected by the proposed development either directly or indirectly (either from disturbance arising from nearby construction, or from lighting during the

construction or operational phases of the development). They are scoped out of further consideration.

- 3.31 The desk study returned no records for protected species for the Site: the nearest records are for a noctule bat *Nyctalus noctule* to the north, alongside the Gelligaer Road, and records of Natterer's bat *Myotis nattereri*, common pipistrelle bat *Pipistrellus pipistrellus*, and whiskered/Brandt's bat *Myotis mystacinus/brandtii*, approximately 425 m to the south of the Site on the edge of the wooded watercourse that flows to Nelson. Other records from within the search area include Daubenton's bat (closest record approximately 1 km distant), soprano pipistrelle *Pipistrellus pygmaeus* (closest record approximately 1.4 km distant), and brown long-eared bat *Plecotus auratus* (closest record approximately 800 m distant). In total, there were 54 records of bats within 2 km of the Site.
- 3.32 The Site is a large field of improved grassland with spoil mounds of inert materials and a small stretch of running water with scattered scrub. It has low potential for feeding and commuting bats and is likely to be of negligible importance as a resource for the local bat population. The importance of the stream and woodland edge will be higher for bats, and roosting in woodland trees is likely. The stream and the woodland will not be directly affected by the proposals.

#### **Impacts on bats / habitat for bats**

- 3.33 No roosting opportunities for bats are present on the Site. Indirect impacts (noise, light, vibration) could impact bats that might roost in trees in the adjacent SINC woodland. However, mitigation of this potential impact will be controlled by implementation of a proposed CEMP which will control activities close to the woodland to ensure light spill and excessive noise or vibration do not occur.
- 3.34 The large field of improved grassland will be replaced by native woodland on the landscape mound and the streamside strip of native woodland. This will create a much larger local woodland block that will increase foraging, commuting and, ultimately, roosting opportunities for the local bat population. This enhancement will be a positive impact for bats in the context of the local valley and catchment.

#### **Great crested newts and other amphibians**

- 3.35 There are several records of great crested newt within 2km of the Site. The closest records are from Nelson Bog and date from 1984. Environmental DNA (eDNA) surveys were undertaken in April 2020 by BSG Ecology as part of the ecological study to inform the proposed extension of Bryn Quarry. They returned a negative result for the presence of great crested newts within the ponds on the proposed quarry extension area and two other ponds within 500 m of the quarry extension area. Great crested newts were considered to be absent from the proposed quarry extension site, and absent the other two ponds (a settlement lagoon 280 m south-east of the MRF extension Site and one 240 m south-south-east of the MRF extension Site).
- 3.36 Common toad, frogs and smooth newts are also recorded locally, with the closest records from over 600 m away.
- 3.37 The large expanse of improved grassland on the Site has very limited habitat potential for great crested newts, and the remaining patches of tall ruderal vegetation and scattered scrub are very small and over 700 m (straight line) from the nearest records of great crested newts. The lined circular lagoon at TN1 (see Figure 1) has no visible vegetation and very limited potential for great crested newts. Given the distances to the nearest records of any amphibians, the absence of newts in recent eDNA survey of nearby ponds, and the low potential of the habitats on the Site to support any amphibians, they are scoped out of further consideration.

#### **Reptiles**

- 3.38 The nearest record is for slow worm *Anguis fragilis*, approximately 800 m south-east. Basking and sheltering opportunities are very limited on the Site and they are scoped out of further consideration.

**Brown hare**

- 3.39 The nearest record for brown hare *Lepus europaeus*, is approximately 580 m south-south-east of the Site. Potential for brown hare is very limited on the Site and while their occasional presence on the grassland cannot be ruled out, the lack of cover means that the Site is likely to be of negligible importance for the species and they are scoped out of further consideration.

**Otter**

- 3.40 Otter *Lutra lutra* is present on the local stream catchment: several recent records of otter were returned from SEWBRc, mainly from Nelson Bog. Otters may occasionally commute up the watercourse from Nelson Bog but the watercourse at this point is small and very close to the top of the catchment and very unlikely to provide a significant source of food. The Site itself has very low potential and is of negligible interest for the species.

**Impacts on otter**

- 3.41 Given the low potential of the Site and the watercourse to support otters, the stand-off between the watercourse and the landscape mound, and the short-term nature of engineering works at the toe of the bank, which will be controlled by implementation of a CEMP, significant disturbance impacts on otters are unlikely to arise.

**Other species: birds**

- 3.42 Noise and lighting impacts could arise in respect of nesting birds during the construction phase in the adjacent woodland (although this will depend on when construction takes place). Mitigation of this potential impact will be controlled by implementation of a proposed CEMP which will control activities close to the woodland to ensure light spill and excessive noise do not occur. No significant residual impact would be expected.

**Enhancement**

- 3.43 The Development will deliver biodiversity enhancement: it will enhance local species and structural diversity, replacing a large, improved grassland field with a landscape mound of native woodland, along with native wet woodland on the lower part of the field. This will benefit a range of species locally, and in particular will provide increased commuting, foraging and long-term roosting opportunities for bats.
- 3.44 Also included in the design is a surface water management system designed to attenuate water from the new mound slope before it enters the local watercourse system. Although this is a practical function it will also increase the amount of open water locally and has potential for further enhancement through the incorporation of native marginal planting to provide additional wetland habitat of value for a wide variety of species.
- 3.45 Once established, the wooded mound will be of higher biodiversity value than the habitats that it replaces, and a long-term management plan for management of the woodland and other marginal habitats should be produced to maintain this.

**Key biodiversity policy and legislation**

- 3.46 The proposals are considered in light of the requirements of the Wildlife and Countryside Act, Conservation of Habitats and Species Regulations, the Environment (Wales) Act, Planning Policy Wales (11) and TAN 5; as well relevant Local Development Plan (LDP) policies (CW4, CW6 and NH3).
- 3.47 **Effects on statutory designated sites.** To ensure protection of habitats for which Nelson Bog SSSI is notified, construction-phase measures will be specified in a CEMP to be secured by condition. No significant residual impacts on SSSIs will arise with mitigation in place, in line with the requirements of relevant legislation, PPW 11 and TAN 5.

- 3.48 **Effects on non-statutory designated sites.** None will be significantly affected. A CEMP will ensure no significant residual impacts from temporary engineering work close to the SINC. This is in line with Policies CW4 and NH3. Protection measures will take account of the requirements of Policy CW6, and the presence of ancient woodland adjacent to the Site.
- 3.49 **Effects on protected and Section 7 (Environment (Wales) Act) species.** Residual adverse effects on bats are assessed as negligible, and diversification and enhancement of habitat will benefit bats and other species. No significant adverse impacts are anticipated for other protected species.
- 3.50 Residual effects on protected and Section 7 species are in line with the requirements of the Wildlife and Countryside Act, the Conservation of Habitats and Species Regulations, PPW 11 and TAN 5, as well as relevant LDP policies.
- 3.51 **Effects on habitats and species.** Planting of new native woodland over the landscape mound means that there will be an enhancement of the local habitat network. Management of the woodland will be proposed to maximise conservation as well as landscape potential, and to ensure local habitat connectivity enhancement in the long-term. Water courses, existing woodland and other protected habitats around and close to the site will be safeguarded through the implementation of a CEMP.
- 3.52 **Ecosystem assessment.** Maintenance and enhancement of local habitat structure and function will be delivered and the development will contribute to the aims of the Environment (Wales) Act in maintaining and enhancing biodiversity and promoting the resilience of ecosystems – in particular, woodland and water courses. The proposals will increase local habitat connectivity and increase opportunities for bats and other faunal species. This will ensure maintenance of ecosystem diversity, connectivity, function, and resilience. Management will ensure ecosystem adaptability and continued resilience. This is in line with the requirements of the Environment (Wales) Act, addressing Sections 6/7 of the Act. By protecting and enhancing the local green network, corridors and connecting habitats within the developed area it is also in line with PPW 11.

## 4 References

Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London. Dietz, C., Helverson, O., Nill, D. (2009) *Bats of Britain, Europe and North-West Africa*. A & C Black.

## 5 Photographs



Photo 1: Settlement lagoon in existing MRF



Photo 2: View west from settlement lagoon in Photo 1 over southern end of extension area



Photo 3 reverse view of Photo 2 towards offsite settlement lagoon across the improved grassland



Photo 4 view north from southern Site boundary of tipped rubble



Photo 5: southern boundary of Site - view along a tributary of the stream that flows toward Nelson Bog



Photo 6: view from southern boundary north across improved grassland



Photo 7: view from southern boundary north across improved grassland



Photo 8: view east onto tall ruderal vegetation, improved grassland and tipped material



Photo 9: view north-east onto tipped material



Photo 10: view south-west from below the dry lagoon offsite towards SINC 3.61 *Coed Gelliau'r-gwellt*, east of *Llancaiach*



Photo 11: view west from below the dry lagoon offsite towards SINC 3.61 *Coed Gelliau'r-gwellt*, east of *Llancaiach*



Photo 12 view north-west from below the dry lagoon offsite towards SINC 3.61 *Coed Gelliau'r-gwellt*, east of *Llancaiach*



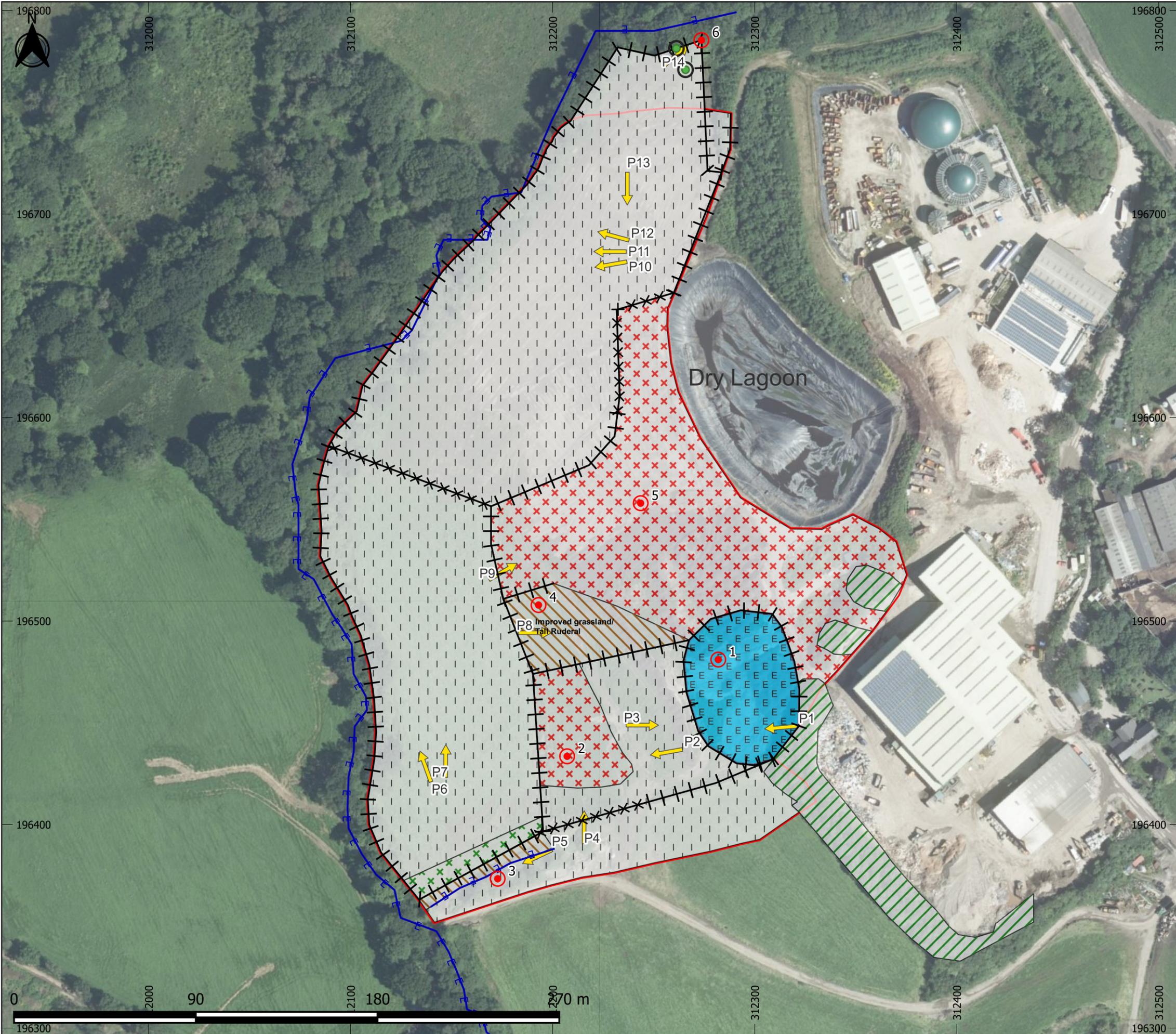
Photo 13: view from northern corner of Site towards tipped material above the extension area



Photo 14: two oak trees just offsite in northern corner of field Left-hand tree is downslope.

## 6 Figures

(Figure 1, overleaf)



- Legend
- Target note
  - Existing large tree
  - Photography point
  - ⊥ Fence
  - ⊗⊗ Boundary removed
  - Running water - eutrophic
  - ▨ Broadleaved woodland - plantation
  - ⊕ Scrub - scattered
  - ▨ Improved grassland
  - ▨ Other tall herb and fern - ruderal
  - ▨ Standing water - eutrophic
  - ⊗ Spoil
  - ▭ Site boundary

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PROJECT TITLE  
 BRYN QUARRY

DRAWING TITLE  
 Figure 1: Phase 1 Habitat Survey 2022

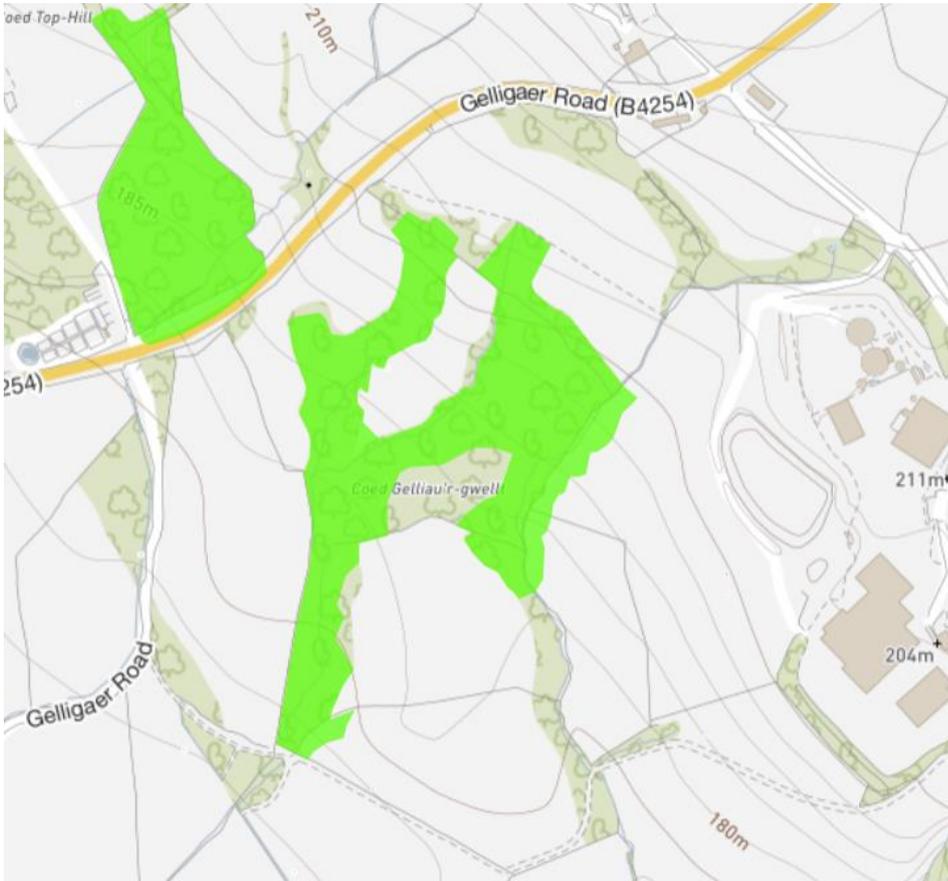
DATE: 28/03/2022      CHECKED: JG      SCALE: 1:1,800  
 DRAWN: LR      APPROVED: JG      VERSION: 1.0

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 Projection: OSGB 1936/British National Grid - EPSG 27700  
 Sources: BSG Ecology survey data

Graphics Ref. No.: 00174

## Appendix 1: Ancient Woodland and Details of Adjacent SINC

Extract from Lle.gov.wales showing extent of ancient semi-natural woodland



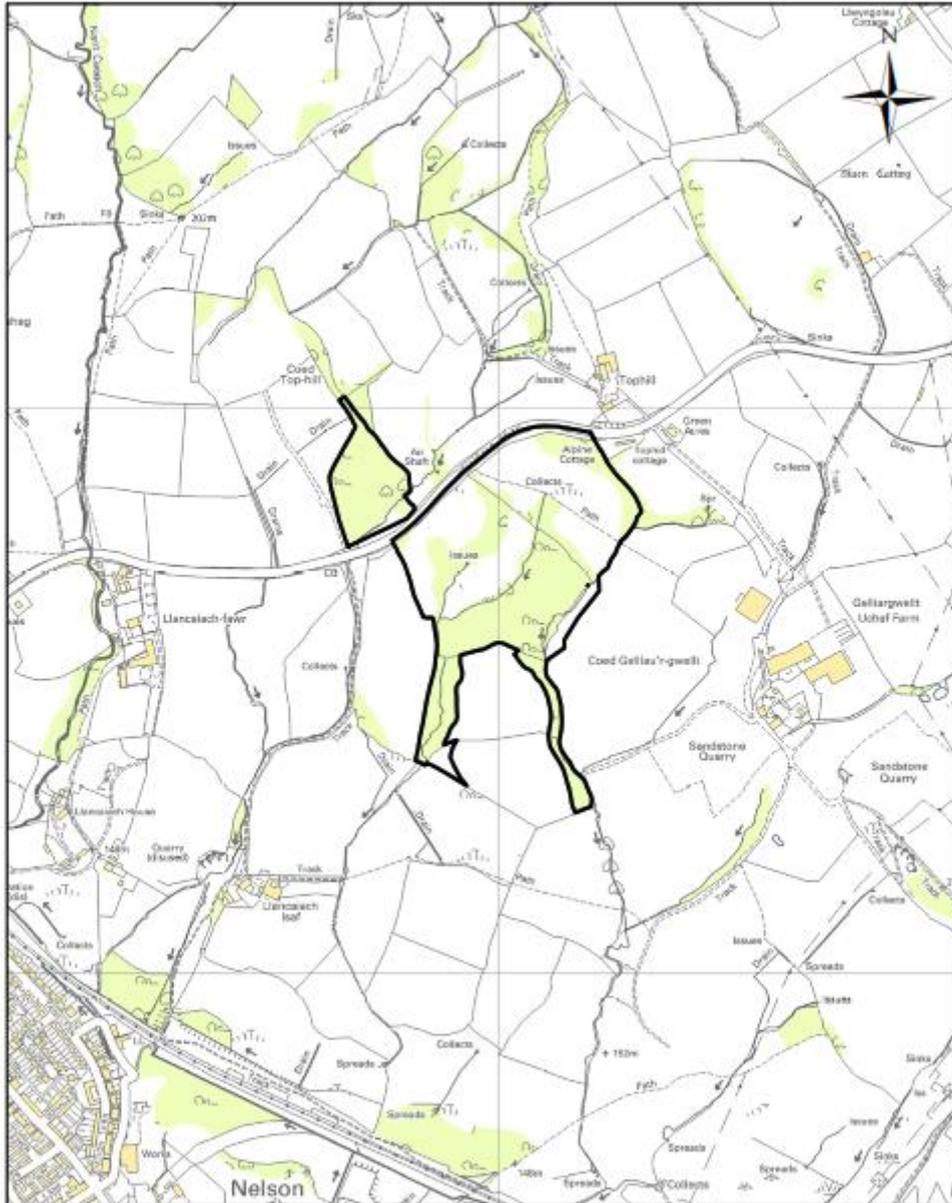
## SINC description

Sites of Importance for Nature Conservation in Caerphilly County Borough Council	
<b>LDP Policy Ref. NH 3.61</b>	<b>SINC name: Coed Gelliau'r-gwellt, east of Llancaiach</b>
<b>Grid reference: ST120966</b>	<b>Area (hectares): 16</b>
<b>Survey date: 10<sup>th</sup> July 2007</b>	<b>Surveyed by: Dr Peter Sturgess (Hyder Consulting Ltd.)</b>
<b>(UDP policy reference: C11.58)</b>	
<b>Summary description</b>	
<p>The site supports semi-natural, ancient Oak woodland, with a canopy of Oak, Alder and Downy birch. The area to the north of Gelligaer Road is ungrazed and includes a tangled understorey of Hazel and Holly, and a moderate diversity of semi-natural indicators in its ground flora. The majority of the woodland to the south of Gelligaer Road is grazed with less under storey and a higher proportion of grasses in its ground flora, and several large clearings that support semi-improved grassland. In the northeastern part, there is an area of Purple moor-grass and Birch scrub, with patches of diverse marshy grassland vegetation including Devil's-bit scabious, Meadow thistle and <i>Sphagnum</i> mosses. Marsh fritillary and Small pearl-bordered fritillary butterflies have been recorded from this area.</p>	
<b>Qualifying features</b>	
<p>Ancient woodland with an assemblage of semi-natural indicator species.</p> <p>Species-rich marshy grassland with at least 12 indicator species.</p> <p>Presence of Marsh Fritillary Butterfly.</p>	
<b>Secondary features</b>	
<p>Semi-improved neutral/ acid grassland.</p> <p>Scrub.</p>	
<b>Potential value/ unconfirmed features</b>	
<p>The site is likely to provide good foraging and roosting habitat for bats.</p> <p>The marshy grassland habitat is likely to be used by reptiles.</p> <p>The site is likely to support a high diversity of invertebrates, possibly including uncommon species such as fritillary butterflies or Narrow-bordered bee hawkmoth.</p>	
<b>Current management (including problems and opportunities for biodiversity enhancement)</b>	
<p>Cattle graze the southern woodland area and this appears to be limiting the ground flora diversity and regeneration of young trees. It would therefore be beneficial for the ground vegetation and habitat structure if the grazing intensity within the woodland were reduced. The marshy grassland area has not been grazed for several years and is subject to occasional burning. A reduction in the number of low-growing plants (see desk study data) suggests that the area has declined in nature conservation value and the re-introduction of light grazing by horses or cattle would be beneficial to enhance the site, particularly for the flora and Marsh fritillary butterfly.</p>	

<p><b>Access/ community use</b></p> <p>A public footpath crosses the marshy grassland area. There is no other formal public access to the site, although there are signs of informal access.</p>
<p><b>Additional information</b></p> <p>The strip of woodland extending northwards beyond the SINC boundary is classified as ancient woodland. It does not appear to meet SINC criteria in terms of its vegetation, but may still provide a corridor usable by bats. This area should be considered at future review. Aerial photography and Phase 1 maps indicate several fields of marshy grassland and woodland at approximately ST119974. These should be considered at future SINC review.</p>
<p><b>Species list (Dominant species, SINC Criteria, RDB or other notable indicator species)</b> (LBAP species shown in <b>bold</b>, species confirmed by 2007 survey in <i>italics</i>)</p> <p><u>Woodland and scrub woody species:</u> <i>Quercus robur</i>, <i>Alnus glutinosa</i>, <i>Salix cinerea</i>, <i>Quercus petraea</i>, <i>Lonicera periclymenum</i>, <i>Betula pubescens</i>, <i>Corylus avellana</i>, <i>Fraxinus excelsior</i>, <i>Sorbus aucuparia</i>, <i>Rubus fruticosus</i>, <i>Acer pseudoplatanus</i>, <i>Crataegus monogyna</i>, <i>Ilex aquifolium</i>, <i>Viburnum opulus</i>, <i>Hedera helix</i>, <i>Salix caprea</i>, <i>Salix aurita</i>, <i>Ulex gallii</i>, <i>Ulex europaeus</i>.</p> <p><u>Woodland ground flora species:</u> <b><i>Hyacinthoides non-scripta</i></b>, <i>Oxalis acetosella</i>, <i>Stellaria holostea</i>, <i>Chamerion angustifolium</i>, <i>Digitalis purpurea</i>, <i>Geum urbanum</i>, <i>Circaea lutetiana</i>, <i>Viola riviniana</i>, <i>Anemone nemorosa</i>, <i>Potentilla erecta</i>, <i>Veronica montana</i>, <i>Viola palustris</i>, <i>Chrysosplenium oppositifolium</i>, <i>Arum maculatum</i>, <i>Lysimachia nemorum</i>, <i>Holcus mollis</i>, <i>Agrostis capillaris</i>, <i>Anthoxanthum odoratum</i>, <i>Deschampsia cespitosa</i>, <i>Molinia caerulea</i>, <i>Pteridium aquilinum</i>, <i>Blechnum spicant</i>, <i>Dryopteris dilatata</i>, <i>Dryopteris filix-mas</i>, <i>Dryopteris affinis</i>, <i>Mnium hornum</i>, <i>Kindbergia praelonga</i>, <i>Scleropodium purum</i>, <i>Fissidens taxifolius</i>, <i>Polytrichum formosum</i>, <i>Polytrichum commune</i>, <i>Thuidium tamariscinum</i>, <i>Eurhynchium striatum</i>. The fungus <i>Laetiporus sulphureus</i> was growing on a dead Oak in the northern woodland.</p> <p><u>Marshy grassland species:</u> <i>Succisa pratensis</i>, <i>Cirsium palustre</i>, <i>Potentilla erecta</i>, <i>Cirsium dissectum</i>, <i>Viola palustris</i>, <i>Serratula tinctoria</i>, <i>Lotus pedunculatus</i>, <i>Lychnis flos-cuculi</i>, <i>Ranunculus flammula</i>, <i>Lathyrus linifolius</i>, <i>Myosotis laxa</i>, <i>Filipendula ulmaria</i>, <i>Angelica sylvestris</i>, <i>Valeriana officinalis</i>, <i>Galium palustre</i>, <i>Epilobium palustre</i>, <i>Stellaria alsine</i>, <i>Ajuga reptans</i>, <i>Galium saxatile</i>, <i>Eupatorium cannabinum</i>, <i>Molinia caerulea</i>, <i>Deschampsia cespitosa</i>, <i>Agrostis capillaris</i>, <i>Festuca ovina</i>, <i>Nardus stricta</i>, <i>Danthonia decumbens</i>, <i>Carex binervis</i>, <i>Juncus acutiflorus</i>, <i>Juncus effusus</i>, <i>Sphagnum denticulatum/ inundatum</i>, <i>Aulacomnium palustre</i>, <i>Polytrichum commune</i>.</p> <p><u>Semi-improved grassland species:</u> <i>Potentilla erecta</i>, <i>Lotus corniculatus</i>, <i>Ranunculus flammula</i>, <i>Plantago lanceolata</i>, <i>Ulex gallii</i>, <i>Holcus lanatus</i>, <i>Agrostis capillaris</i>, <i>Anthoxanthum odoratum</i>, <i>Cynosurus cristatus</i>, <i>Agrostis stolonifera</i>, <i>Carex flacca</i>, <i>Juncus inflexus</i>, <i>Rhytidadelphus squarrosus</i>.</p> <p><u>Fauna observations:</u> <b>Song Thrush</b>, <b>Buzzard</b>, <b>Blackcap</b>, <b>Chiffchaff</b>, <b>Meadow Brown Butterfly</b>, <b>Red Admiral Butterfly</b>, <b>Marbled White Butterfly</b> (in grassland on tip adjacent to north-west of SINC).</p> <p><u>Additional species noted from desk study and consultation:</u> <b>Marsh Fritillary Butterfly</b>, <i>Genista anglica</i>, <b>Dactylorhiza maculata</b>, <i>Anagallis tenella</i>, <i>Carex montana</i>, <i>Carex hostiana</i>, <i>Carex panicea</i>, <i>Carex echinata</i>, <i>Carex viridula</i>, <i>Briza media</i>.</p>

Caerphilly County Borough Council  
 Site of Importance for Nature Conservation  
 LDP Policy Ref: NH 3.61 (SINC 058)  
 Coed Gelliau'r-Gwellt, East of Llancaiach 16 Ha

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Allymhyrchedd o fapad yr Anoleg Ordnans gyda chaniadau rheolwr Llythfa a Mawrthdi hawlfraidi y Goron.  
 Mae allymhyrchtu heb awdurdod yn foni hawlfraidi y Goron.  
 Gall hyn arwain at wilyriad neu achos ail. Cyngor Bwrdeistref Siroedd Caerphilly, 100025372, 2008.