CYNGOR CEFN GWLAD CYMRU
COUNTRYSIDE COUNCIL FOR WALES

CORE MANAGEMENT PLAN
INCLUDING CONSERVATION OBJECTIVES

FOR

SAFLEOEDD YSTLUMOD DYFFRYN GWY A FFOREST Y DDENA/ WYE VALLEY AND FOREST OF DEAN BAT SAC

Version: 1

Date: 22 January 2008

Approved by: David Mitchell

More detailed maps of management units can be provided on request.
A Welsh version of all or part of this document can be made available on request.

Cyngor Cefn Gwlad Cymru
Countryside Council for Wales

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PREFACE

This document provides the main elements of CCW's management plan for the site named. It sets out what needs to be achieved on the site, the results of monitoring and advice on the action required. This document is made available through CCW's web site and may be revised in response to changing circumstances or new information. This is a technical document that supplements summary information on the web site.

One of the key functions of this document is to provide CCW's statement of the Conservation Objectives for the relevant Natura 2000 site. This is required to implement the Conservation (Natural Habitats, &c.) Regulations 1994, as amended (Section 4). As a matter of Welsh Assembly Government Policy, the provisions of those regulations are also to be applied to Ramsar sites in Wales.

1. VISION FOR THE SITE

This is a descriptive overview of what needs to be achieved for conservation on the site. It brings together and summarises the Conservation Objectives (part 4) into a single, integrated statement about the site.

The Wye Valley and Forest of Dean Bat SAC is a cross border site, straddling the Welsh/English Border. It is made up of thirteen component SSSIs, of which four are in Wales: Llangovan Church, Mwyngloddfa Mynydd-bach, Newton Court Stable Block and Wye Valley Lesser Horseshoe Bats SSSIs. Wye Valley Lesser Horseshoe Bats SSSI is actually four separate summer bat roosts, consisting of Penallt Old Church, The Priory at Llandogo, Itton Court Stud and Tregeiriog Farm.

During the summer it is possible to see large numbers of bats coming and going from the roosts at dusk and dawn. Species numbers will vary slightly from year to year, but
Penallt Old Church supports at least 250 adult lesser horseshoe bats; The Priory, Llandogo supports at least 350 adult lesser horseshoe bats; Itton Court Stud supports at least 80 adult lesser horseshoe bats; and Tregeiriog Farm supports at least 80 adult lesser horseshoe bats.

Newton Court Stable Block should support a summer population of greater horseshoe bats of at least 55 adult bats and 30 juveniles.

Mwyngloddfa Mynydd-bach continues to support a hibernation roost, with at least 60 adult lesser horseshoe bats.

The buildings and structures that support these roosts are maintained in good condition, and improved where possible, to optimise the conditions suitable for the breeding success of these species. In order to allow the bats to enter and leave freely roost, access routes should be kept open. Tree/shrubs, which are important for bats as they act as flight paths to feeding areas, should be retained.

2. SITE DESCRIPTION

2.1 Area and Designations Covered by this Plan

Grid references:
Llangovan Church (SO456055)
Mwngloddfa Mynydd Bach (ST484943)
Newton Court Stable Block (SO522144)

Wye Valley Lesser Horseshoe Bats SSSI comprising:
Itton Court Stud (ST493952)
Penallt Old Church (SO522107)
Priory, Llandogo (SO525043)
Tregeriog Farm (SO455041)

Unitary authority: Monmouthshire

Area (hectares): 142.7ha

Designations covered:
Wye Valley and Forest of Dean Bats (Safleoedd Ystlumod Dyffryn Gwy A Fforest Y Ddena) Special Area of Conservation is notified as thirteen component SSSIs, four of which are in Wales.

Llangovan Church SSSI
Mwngloddfa Mynydd Bach SSSI
Newton Court Stable Block SSSI
Wye Valley Lesser Horseshoe Bats SSSI (comprising 4 separate sites):

- Itton Court Stud
- Penallt Old Church
- Priory, Llandogo
- Tregeriog Farm

Each component SSSI may have additional land or features that are not part of the SAC interest features. Refer to Section 3.

Detailed maps of the designated sites are available through CCW's web site:
http://www.ccw.gov.uk/interactive-maps/protected-areas-map.aspx

A summary map showing the coverage of this document can be found in Annex 1.

2.2 Outline Description

The Wye Valley and Forest of Dean Bats SAC straddles the Wales-England border and measures c.142.7ha. It is underpinned by 4 SSSI in Wales and 9 in England, all of which lie entirely within the SAC. This report only considers the sites that occur within Wales.

The four component SSSIs are: Llangovan Church SSSI Mwngloddfa Mynydd-bach SSSI Newton Court Stable Block SSSI, and the Wye Valley Lesser Horseshoe Bats SSSI which is a composite SSSI comprising 4 distinct sites.

Llangovan Church SSSI comprises a stone built Norman church and surrounding churchyard, situated on the east facing slope of a valley side in Llangovan, Monmouthshire.

The bats roost in the apex of the main church and in a small roof space to the south side of the tower, but also have access to the main body of the church. A purpose built gap in the church porch allows access on a direct flight path.

Mwngloddfa Mynydd-bach SSSI consists of a disused mine adit cut through Old Red Sandstone rocks. The single entrance faces northeast. The entrance is in a narrow strip of woodland to the north of the Carpenter's Arms Public House at Mynydd-bach. The horizontal adit passes under the B4235 Usk to Chepstow Road to the southwest and continues into the hillside along a straight line, for a total length of about 70 metres.

The bats are found mainly 14 m to 20 m from the entrance with smaller numbers scattered along the length of the adit and at the further end. The site is used throughout the year by smaller numbers of adult and immature lesser horseshoe bats, and is also the only hibernaculum within the Wye Valley and Forest of Dean Bat SAC.

Newton Court Stable Block SSSI comprises a stable block, courtyard and an area of adjacent woodland. The roof space of the stable block is an important breeding site for the rare and endangered greater horseshoe bat.

Newton Court Stable Block is the only breeding roost for greater horseshoe bats *Rhinolophus ferrumequinum* in Monmouthshire and one of only three known in Wales. The site is also used by a small number of lesser horseshoe bats *Rhinolophus hipposideros.*

Wye Valley Lesser Horseshoe Bats SSSI is a composite bat site in and around the valleys of the lower River Wye and its tributaries. The site comprises 4 summer nursery roosts of the lesser horseshoe bat:

1. Itton Court Stud, situated approximately 3 miles north west of Chepstow, comprises part of the courtyard stable block and the access points to this roost site. The site acts as an important transitory roost for many of the bats, utilised during the spring and autumn.

2. Penallt Old Church, dating from the late 13th Century, is located approximately 3 miles south of Monmouth. The site comprises the church and the churchyard. The church is the site of the largest known nursery roost for the species in the UK.

3. The Priory, a large country house, is situated on the steep east facing slopes of the River Wye Gorge at Llandogo. The roost here is in the roof space of the main building, which has been used as a nursery site regularly since its discovery in 1985.

4. Tregeiriog farm lies close to Llangovan, approximately 7 miles south west of Monmouth. The nursery roost here is found in the cellar of a building one used as an icehouse.

Other bat species, brown long-eared *Plecotus auritus* and Natterer's *Myotis nattereri* are found at Itton Court Stud and Tregeiriog Farm respectively.

2.3 Outline of Past and Current Management

At Llangovan Church a false ceiling has been built in the main apex with purpose built access points to improve the Church for roosting lesser horseshoe bats. The Vincent Wildlife Trust currently manages the site, leasing the roof space from the Church in Wales.

Mwyngloddfa Mynydd-Bach is the only hibernaculum within the SAC. No management has been carried out since 1994, when a grille was fitted over the mine entrance. In the wider area, the woodland has been coppiced and more recent management has focused on removing tree roots threatening the integrity of the rock near the mine entrance.

At Newton Court various temporary works have been undertaken in recent years. For example, insulation and felt have been used to reduce the amount of wind penetrating the building, and part of the window has been covered in an attempt to decrease the light levels in order to keep the building in a suitable condition for the bats. However, these works are insufficient in the long term and more substantial works are necessary to maintain the building in a condition that meets the needs of the roosting bats.

The four component sites of the Wye Valley Bats SSSI are managed as described below:

- Itton Court Stud is the stable block building on an old stud farm and is currently unused. Minor renovation works have occurred at Itton in recent years. CCW provided grant aid for repairs to the slates of the roof of the main roost area in 1993/94. Funding was also provided for a replacement door on the boiler house that was incorporated into a bat access point.

- Penallt Church was re-roofed in the 1980s and is overall in good condition. There are future plans for small-scale repairs and timber treatment in the future, however these works are not imminent. The Vincent Wildlife Trust leases the site from the Church in Wales. An attic hatch has been installed to enable access into the tower. However, there is no access into the main attic space where the bats roost.

- The Priory, a large country house, has always been occupied and is now run as a care home for the elderly. There have been extensive discussions as to how the needs of all should be best met at this site, and a report has been produced by Dr Stebbings that investigated potential conflicts of interest at this site and how they should be resolved (Dr RE Stebbings 1995 (CCW Cardiff)). The building itself is generally in good condition.

- The Tregeiriog farm building was once used as an icehouse, but is now managed for the bats in the cellar. It is a listed building that requires significant structural repair. Some renovation works were carried out during 2000, however these works relate to the farmhouse and there are currently no plans for renovation of the cellars where the bats roost. In the past a hot water tank located above the cellar stairwell has been in use. This has however not been used in recent years, and this could have led to a change in conditions that has caused a decline in the number of bats at this site.

The priority of management at these sites should be to maintain the structural integrity of the roosting areas, while maintaining the surrounding habitats in a condition that can sustain the local bat population.

2.4 Management Units

The plan area has been divided into management units to enable practical communication about features, objectives, and management. This will also allow us to differentiate between

the different designations where necessary. In this plan the management units have been based on geographical location and ownership.

A map showing the management units referred to in this plan can be found in Annex 2

The following table confirms the relationships between the management units and the designations covered:

Unit number	**SAC**	**SSSI**	**CCW owned**	**Other**
Llangovan Church SSSI				
1	✓	✓		
Mwngloddfa Mynydd-bach SSSI				
2	✓	✓		
Newton Court Stable Block SSSI				
3	✓	✓		
Wye Valley Lesser Horseshoe Bats SSSI				
4	✓	✓		
5	✓	✓		
7	✓	✓		
6	✓	✓		

The units within the Wye Valley Bats SSSI have been designated unit numbers alphabetically:

Unit 1 – Itton Court Stud
Unit 2 – Penallt Old Church
Unit 3 – The Priory, Llandogo
Unit 4 – Tregeiriog

3. THE SPECIAL FEATURES

3.1 Confirmation of Special Features

Designated feature	***Relationships, nomenclature etc***	***Conservation Objective in part 4***
SAC features		
Annex II species that are a primary reason for selection of this site: ***1.*** **Greater horseshoe bat** *Rhinoloplus ferrumequinum* **(EU Species Code: 1304)**		1
2. **Lesser horseshoe bat** *Rhinolophus hipposideros* **(EU Species Code: 1303)**		2
SPA features		
Not applicable		
Ramsar features		
Not applicable		
SSSI features		
Greater horseshoe bat *Rhinoloplus ferrumequinum*		1

Lesser horseshoe bat *Rhinolophus hipposideros*		2

3.2 Special Features and Management Units

This section sets out the relationship between the special features and each management unit. This is intended to provide a clear statement about what each unit should be managed for, taking into account the varied needs of the different special features. All special features are allocated to one of seven classes in each management unit. These classes are:

Key Features
KH - a 'Key Habitat' in the management unit, i.e. the habitat that is the main driver of management and focus of monitoring effort, perhaps because of the dependence of a key species (see KS below). There will usually only be one Key Habitat in a unit but there can be more, especially with large units.
KS – a 'Key Species' in the management unit, often driving both the selection and management of a Key Habitat.
Geo – an earth science feature that is the main driver of management and focus of monitoring effort in a unit.

Other Features
Sym - habitats, species and earth science features that are of importance in a unit but are not the main drivers of management or focus of monitoring. These features will benefit from management for the key feature(s) identified in the unit. These may be classed as 'Sym' features because:
a) they are present in the unit but may be of less conservation importance than the key feature; and/or
b) they are present in the unit but in small areas/numbers, with the bulk of the feature in other units of the site; and/or
c) their requirements are broader than and compatible with the management needs of the key feature(s), e.g. a mobile species that uses large parts of the site and surrounding areas.

Nm - an infrequently used category where features are at risk of decline within a unit as a result of meeting the management needs of the key feature(s), i.e. under Negative Management. These cases will usually be compensated for by management elsewhere in the plan, and can be used where minor occurrences of a feature would otherwise lead to apparent conflict with another key feature in a unit.
Mn - Management units that are essential for the management of features elsewhere on a site e.g. livestock over-wintering area included within designation boundaries, buffer zones around water bodies, etc.
x – Features not known to be present in the management unit.

The table(s) below sets out the relationship between the special features and management units identified in this plan:

Llangovan Church SSSI	**Management unit**
	1
SAC	✔
SSSI	✔
NNR/CCW owned	
SAC features	
1. Lesser Horseshoe Bats	**KS**
SSSI features	

2. Lesser Horseshoe Bats	**KS**

Mwngloddfa Mynydd-bach SSSI	**Management unit**
	2
SAC	✔
SSSI	✔
NNR/CCW owned	
SAC features	
1. Lesser Horseshoe Bats	**KS**
SSSI features	
2. Lesser Horseshoe Bats	**KS**

Newton Court Stable Block SSSI	**Management unit**
	3
SAC	✔
SSSI	✔
NNR/CCW owned	
SAC features	
1. Greater Horseshoe Bats	**KS**
SSSI features	
2. Greater Horseshoe Bats	**KS**

Wye Valley Lesser Horseshoe Bats SSSI	**Management unit**			
	4	5	7	6
SAC	✔	✔	✔	✔
SSSI	✔	✔	✔	✔
NNR/CCW owned				
SAC features				
1. Lesser Horseshoe Bats	**KS**	**KS**	**KS**	**KS**
SSSI features				
2. Lesser Horseshoe Bats	**KS**	**KS**	**KS**	**KS**
3. Brown Long-Eared Bat	**Sym**	**x**	**x**	**x**
4. Natterer's Bat	**x**	**x**	**x**	**Sym**

4. CONSERVATION OBJECTIVES

Background to Conservation Objectives:

a. Outline of the legal context and purpose of conservation objectives.

Conservation objectives are required by the 1992 'Habitats' Directive (92/43/EEC). The aim of the Habitats Directives is the maintenance, or where appropriate the restoration of the 'favourable conservation status' of habitats and species features for which SACs and SPAs are designated (see Box 1).

In the broadest terms, 'favourable conservation status' means a feature is in satisfactory condition and all the things needed to keep it that way are in place for the foreseeable future. CCW considers that the concept of favourable conservation status provides a practical and legally robust basis for conservation objectives for Natura 2000 and Ramsar sites.

Box 1
Favourable conservation status as defined in Articles 1(e) and 1(i) of the Habitats Directive

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

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

The conservation status of a species is the sum of the influences acting on the species that may affect the long-term distribution and abundance of its populations. The conservation status will be taken as 'favourable' when:

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

Achieving these objectives requires appropriate management and the control of factors that may cause deterioration of habitats or significant disturbance to species.

As well as the overall function of communication, conservation objectives have a number of specific roles:

- Conservation planning and management.

  The conservation objectives guide management of sites, to maintain or restore the habitats and species in favourable condition.

- Assessing plans and projects.

  Article 6(3) of the 'Habitats' Directive requires appropriate assessment of proposed plans and projects against a site's conservation objectives. Subject to certain exceptions, plans or projects may not proceed unless it is established that they will not adversely affect the integrity of sites. This role for testing plans and projects also applies to the review of existing decisions and consents.

- Monitoring and reporting.

  The conservation objectives provide the basis for assessing the condition of a feature and the status of factors that affect it. CCW uses 'performance indicators' within the conservation objectives, as the basis for monitoring and reporting. Performance indicators are selected to provide useful information about the condition of a feature and the factors that affect it.

The conservation objectives in this document reflect CCW's current information and understanding of the site and its features and their importance in an international context. The conservation objectives are subject to review by CCW in light of new knowledge.

b. Format of the conservation objectives

There is one conservation objective for each feature listed in part 3. Each conservation objective is a composite statement representing a site-specific description of what is considered to be the favourable conservation status of the feature. These statements apply to a whole feature as it occurs within the whole plan area, although section 3.2 sets out their relevance to individual management units.

Each conservation objective consists of the following two elements:

1. Vision for the feature
2. Performance indicators

As a result of the general practice developed and agreed within the UK Conservation Agencies, conservation objectives include performance indicators, the selection of which should be informed by JNCC guidance on Common Standards Monitoring[1].

There is a critical need for clarity over the role of performance indicators within the conservation objectives. **A conservation objective, because it includes the vision for the feature, has meaning and substance independently of the performance indicators, and is more than the sum of the performance indicators**. The performance indicators are simply what make the conservation objectives measurable, and are thus part of, not a substitute for, the conservation objectives. Any feature attribute identified in the performance indicators should be represented in the vision for the feature, but not all elements of the vision for the feature will necessarily have corresponding performance indicators.

As well as describing the aspirations for the condition of the feature, the Vision section of each conservation objective contains a statement that the factors necessary to maintain those desired conditions are under control. Subject to technical, practical and resource constraints, factors which have an important influence on the condition of the feature are identified in the performance indicators.

[1] Available through www.jncc.gov.uk and follow links to Protected Sites and Common Standards Monitoring.

4.1 Conservation Objective for Feature 1: Greater Horseshoe Bat *Rhinolophus ferrumequinum* (EU Species Code: 1304)

Vision for feature 1

The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- The site will support a sustainable population of greater horseshoe bats in the Wye Valley area.
- The population will viable in the long term, acknowledging the population fluctuations of the species.
- Buildings, structures and habitats on the site will be in optimal condition to support the populations.
- Sufficient foraging habitat is available, in which factors such as disturbance, interruption to flight lines, and mortality from predation or vehicle collision, changes in habitat management that would reduce the available food source are not at levels which could cause any decline in population size or range
- Management of the surrounding habitats is of the appropriate type and sufficiently secure to ensure there is likely to be no reduction in population size or range, nor any decline in the extent or quality of breeding, foraging or hibernating habitat.
- There will be no loss or decline in quality of linear features (such as hedgerows and tree lines) which the bats use as flight lines - there will be no loss of foraging habitat use by the bats or decline in its quality, such as due to over-intensive woodland management
- All factors affecting the achievement of the foregoing conditions are under control.

Performance indicators for Feature 1

The performance indicators are <u>part of</u> the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators.

The performance indicators for maintenance of **favourable condition** of the greater horseshoe bats (*Rhinolophus ferrumequinum*) on the Welsh side of the Wye Valley and Forest of Dean Bat Sites SAC.

Performance indicators for feature condition		
Attribute	***Attribute rationale and other comments***	***Specified limits***
A1. Population of Greater Horseshoe Bats	Justification for limits in document 'Draft Performance Indicators for Greaters', K. Wilkinson, 2005. Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements. An adult bat is defined as any greater horseshoe bat recorded leaving the roost between 7th – 21st July.	*Upper limits:* None required. *Lower limits:* During at least one surveillance visit between 7th –21st July of every year, there will be 80 or more adult bats present.

A2. Recruitment to bat population/productivity	Justification for limits in document 'Draft Performance Indicators for Greaters', K. Wilkinson, 2005. Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements.	*Upper limits:* None required. *Lower limits:* During at least one surveillance visit between 7th –28th July of every year, the productivity should be 0.3 or more (i.e. number of births is 30% or more of the total number of adult bats).
Performance indicators for factors affecting the feature		
Factor	***Factor rationale and other comments***	***Operational Limits***
F1. Site security	Justification for limits in document 'Draft Performance Indicators for Greaters', K. Wilkinson, 2005. Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements.	*Upper limits:* None required. *Lower limits:* Access to the site under the control of the owner/occupier or site secured against unauthorised access.
F2. External condition of the building	Justification for limits in document 'Draft Performance Indicators for Greaters', K. Wilkinson, 2005. Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements.	*Upper limits:* None required. *Lower limits:* Fabric of building sufficient to maintain roost conditions internally with: • Weatherproof roof. • No holes allowing excessive heat loss or high light levels in the roost area. • Walls sound, rainwater goods in adequate condition. • Solar heating sufficient to maintain adequate roost temperature, with no significant shading of the roost. • The building is structurally stable.

F3. Roost access	Justification for limits in document 'Draft Performance Indicators for Greaters', K. Wilkinson, 2005. Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements.	*Upper limits:* None required. *Lower limits:* The roost access is in a suitable condition to allow emergence by bats with: • A greater horseshoe bat entrance a minimum of 400mm x 300mm. • An entrance that is unobstructed and allows the bats to fly through unimpeded. • No artificial lights shining on access or associated flight paths.
F4. Disturbance	Justification for limits in document 'Draft Performance Indicators for Greaters', K. Wilkinson, 2005. Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements.	*Upper limits:* None required *Lower limits:* Disturbance levels acceptable to bats with: • No increase since previous visit. • Human access to roost controlled and limited.
F5. Internal condition of building	Justification for limits in document 'Draft Performance Indicators for Greaters', K. Wilkinson, 2005. Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements.	*Upper limits:* None required. *Lower limits:* The internal fabric of the building is sufficient to maintain the roost location with: • No significant water penetration. • Low light levels with no through draught. • No toxic substances present which would adversely affect the health of the bats.
F6. Temperature of roost area	Site specific requirements based on site monitoring	To be determined

F7. Flight Lines	Justification for limits in document 'Draft Performance Indicators for Greaters', K. Wilkinson, 2005/ 'Monitoring Greater Horseshoe Bats in the Wye Valley through radio tracking and field survey to assess habitat use and condition', G. Billington, 2005. Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements. Broadleaf woodland edge is defined as an area where 90% of the trees are broadleaf. A woodland ride is defined as woodland track >10m wide and greater than 100m in length. Tree lined is defined as a line of trees with <20% gaps over the length and with no individual gaps that are greater than 10m. Type 2A hedgerow is defined as partially managed/unmanaged hedgerow >2m wide and >2m high, not gappy. Type 2B hedgerow is defined as 2A but with gaps. Type 3A hedgerow is defined as hedgerow with trees (overall >30% trees) or tree lined, non gappy. Gappy/gaps is defined as a hedge where there is 20% gaps over the length of the hedge or with single gaps greater than 10m.	*Upper limits:* None required. *Lower limits:* Refer to Figure 2 (Collins *et al*, 2005) for locations of these Areas. 70% of Area A (Hayes coppice up to horizontal line) is maintained as woodland **AND** Within Area A there are a minimum of two woodland rides **AND** Area B is maintained as a broadleaf woodland edge **AND** Within 500m of the roost: • Mally Brook is maintained as a tree-lined stream. • There are at least 400m of hedgerow that are described as type 2 or better, of which no more than 50% will be type 2B. • Type 2 or better hedgerows will be present (at least 50m) both north and south of Mally Brook. **AND** District staff should comment on felling licences applications within 2km of the roost. **Note**: Refer to Collins *et al*, 2005 for development of these habitat definitions and figures.

F8. Feeding habitats	Justification for limits in document 'Draft Performance Indicators for Greaters', K. Wilkinson, 2005/ 'Monitoring Greater Horseshoe Bats in the Wye Valley through radio tracking and field survey to assess habitat use and condition', G. Billington, 2005. Based on Common Standards Monitoring for this feature. Modified according to site specific requirements. Type 2A hedgerow is defined as partially managed/unmanaged hedgerow >2m wide and >2m high, not gappy. Type 2B hedgerow is defined as 2A but with gaps. The River Wye has also been shown to be an important flight line/feeding habitat for greater horseshoe bats.	*Upper limits:* None required. *Lower limits:* • Within Area G (see Figure 3, Collins *et al*, 2005) 40% of the length of field boundaries will be type 2 or better. • Within Area I (see Figure 4) 50% of the length of field boundaries will be of type 2 hedge or better. • An ideal level of cattle grazing for the area has yet to be determined. *Other conditions:* • District staff should comment on any Tir Gofal applications within the 7km survey boundary. Management should look to increase the amount of cattle grazing, conversion of improved pasture to semi-improved and improve the structure of hedgerows (to make them taller and bushier). • The requirements of these bats should be considered when considering riparian management along the stretch of the River Wye that lies within the 7km survey boundary.
F9. Roosts	Justification for limits in document 'Draft Performance Indicators for Greaters', K. Wilkinson, 2005 / 'Monitoring Greater Horseshoe Bats in the Wye Valley through radio tracking and field survey to assess habitat use and condition', G. Billington, 2005. Based on Common Standards Monitoring for this feature. Modified according to site specific requirements.	*Upper limits:* None required. *Lower limits:* • The roost at Osbaston will be maintained according to the criteria outlined in the Common Standards Monitoring for Mammals version: August 2004.

F10. Condition of the habitat within the SSSI boundary	Justification for limits in documents 'Draft Performance Indicators for Greaters', K. Wilkinson, 2005 / 'Monitoring Greater Horseshoe Bats in the Wye Valley through radio tracking and field survey to assess habitat use and condition' G. Billington, 2005. Based on Common Standards Monitoring for this feature. Modified according to site specific requirements. Woodland is defined as an area dominated by broadleaf or conifer trees with no clear felled areas >0.1ha Livox Wood and Harper's Grove Lord's Grove are within close proximity to Newton Court and it is likely that they are used at certain times of the year (one radio-tagged bat was recorded sheltering in Harper's Grove during the 2004 study).	*Upper limit:* The roof of the roost will not be shaded by trees. *Lower limit:* • The wall (refer to Figure 1 in report 'Draft Performance Indicators for Greaters' K. Wilkinson, 2005) is structurally intact **AND** • 70% of the SSSI is referable to broadleaf woodland **AND** • Livox Wood and Harper's Grove Lord's Grove form part of the Wye Valley Woods SAC and therefore CCW has some degree of management control of them. The requirements of these bats should be considered when developing management plans for both these sites.

The feeding habitat and flight line limits represent more of a long-term aim and in some respects represent the ideal landscape. However here we have attempted, using information from radio-tracking and general knowledge of greater horseshoe bat ecology, to identify key areas that will aid the maintenance of FCS of this colony of greater horseshoe bats. This is not a complete list and it is likely that as more information becomes available other areas of habitat will be identified as being of importance.

4.2 Conservation Objective for Feature 2: Lesser Horseshoe Bat *Rhinolophus hipposideros* (EU Species Code: 1303)

Vision for feature 2

The vision for this feature is for it to be in a favourable conservation status, where all of the following conditions are satisfied:

- The site will support a sustainable population of lesser horseshoe bats in the Wye Valley area.
- The population will viable in the long term, acknowledging the population fluctuations of the species.
- Buildings, structures and habitats on the site will be in optimal condition to support the populations.
- Sufficient foraging habitat is available, in which factors such as disturbance, interruption to flight lines, and mortality from predation or vehicle collision, changes in habitat management that would reduce the available food source are not at levels which could cause any decline in population size or range.

- Management of the surrounding habitats is of the appropriate type and sufficiently secure to ensure there is likely to be no reduction in population size or range, nor any decline in the extent or quality of breeding, foraging or hibernating habitat.
- There will be no loss or decline in quality of linear features (such as hedgerows and tree lines) which the bats use as flight lines – there will be no loss of foraging habitat use by the bats or decline in its quality, such as due to over-intensive woodland management.
- All factors affecting the achievement of the foregoing conditions are under control.

Performance indicators for Feature 2

The performance indicators are part of the conservation objective, not a substitute for it. Assessment of plans and projects must be based on the entire conservation objective, not just the performance indicators.

The performance indicators for maintenance of **favourable condition** of the lesser horseshoe bats (*Rhinolophus hipposideros*) on the Welsh side of the Wye Valley and Forest of Dean Bat Sites SAC.

Performance indicators for feature condition		
Attribute	***Attribute rationale and other comments***	***Specified limits***
A1. Distribution and population of Lesser Horseshoe Bats	Justification for limits in document 'Draft Performance Indicators for Lessers', K. Wilkinson, 2005 / 'Monitoring the Welsh Colonies of Lesser Horseshoe Bats in the Wye Valley', P. Morgan 2006. Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements. Mwyngloddfa Mynydd-Bach limits based on Common Standards Monitoring for hibernating populations of lesser or greater horseshoe bats. The performance indicators only relate to adult bats; lesser horseshoe bats are sensitive to disturbance and access to the roost to count juvenile bats is considered too disturbing.	*Upper limits:* None required *Lower limits:* For the Welsh side of this SAC to be favourable each of the individual roosts must meet the criteria outlined below. During at least one surveillance visit between 29th May and 17th June of every year, there will be a minimum of adults: **Penallt Old Church** • 250 LHS bats **Itton Court Stud** • 120 LHS bats **The Priory** • 325 LHS bats **Tregeiriog** and **Llangovan Church** • A combined minimum of 180 LHS bats, with a minimum of 40 LHS bats at each roost And during at least one surveillance visit during January of every year, there will be a minimum of: **Mwyngloddfa Mynydd-Bach** 60 LHS bats
Performance indicators for factors affecting the feature		
Factor	***Factor rationale and other comments***	***Operational Limits***

F1. Condition of structures and buildings	Justification for limits in document 'Draft Performance Indicators for Lessers', K. Wilkinson, 2005 Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements.	*Upper limits:* None required. *Lower limits:* Fabric of each building sufficient to maintain roost conditions internally with: • Weatherproof roof. • No holes allowing excessive heat loss or high light levels in the roost area. • Walls sound, rainwater goods in adequate condition. • Solar heating sufficient to maintain adequate roost temperature, with no significant shading of the roost. • The building is structurally stable.
F2. Roost access	Justification for limits in document 'Draft Performance Indicators for Lessers', K. Wilkinson, 2005. Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements. Horseshoe bats prefer to fly through an entrance.	Where: *Upper limits:* None required. *Lower limits:* Each roost access is in a suitable condition to allow emergence by bats with: • A lesser horseshoe bat entrance a minimum of 300mm x 200mm. • An entrance that is unobstructed and allows the bats to fly through unimpeded. • No artificial lights shining on access or associated flight paths.

F3. Hibernaculum access	Justification for limits in document 'Draft Performance Indicators for Lessers', K. Wilkinson, 2005 Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements. These limits cover only the Mwyngloddfa Mynydd-Bach SSSI. Horseshoe bats prefer to fly through an entrance.	*Upper limits:* None required. *Lower limits:* The site entrance is in suitable condition to allow continued use by bats with: • Existing access unobstructed. • No unplanned new access causing a change to the ventilation. • No change in the size sufficient to affect the airflow and internal temperature. • The access used by the bats is stable. • No recent falls or signs of geological instability. • Vegetation present close to the access but not obstructing it. • No artificial lights shining on access or associated flight paths.
F4. Disturbance	Justification for limits in document 'Draft Performance Indicators for Lessers', K. Wilkinson, 2005 Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements.	*Upper limits:* None required. *Lower limits:* Disturbance levels acceptable to bats with: • No increase since previous visit. • Human access to roost controlled and limited.
F5. Temperature of roost area	Site specific requirements based on site monitoring	To be determined
F6. Internal Condition of building	Justification for limits in document 'Draft Performance Indicators for Lessers', K. Wilkinson, 2005 Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements.	*Upper limits:* None required. *Lower limits:* The internal fabric of each building is sufficient to maintain the roost location with: • No significant water penetration. • Low light levels with no through draught. • No toxic substances present which would adversely affect the health of the bats.

F7. Site Security	Justification for limits in document 'Draft Performance Indicators for Lessers', K. Wilkinson, 2005. Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements.	Access to each site is under the control of the owner/occupier and the site is secured against unauthorised access.
F8. Condition of the habitat within the SAC boundary	Justification for limits in document 'Draft Performance Indicators for Lessers', K. Wilkinson, 2005 / 'Monitoring the Welsh Colonies of Lesser Horseshoe Bats in the Wye Valley', P. Morgan 2006. Based on Common Standards Monitoring for this feature. Modified according to site-specific requirements. Mwyngloddfa Mynydd-Bach limits based on Common Standards Monitoring for hibernating populations of lesser or greater horseshoe bats. The performance indicators only relate to adult bats, Lesser horseshoe bats are sensitive to disturbance and access to the roost to count juvenile bats is considered too disturbing.	*Upper limits:* None required. *Lower limits:* **Penallt Old Church** The line of trees leading from the church porch to the entrance should be maintained AND **Mwyngloddfa Mynydd-Bach** The extent of the woodland/scrub is as mapped in 2006.

Other factors considered include –
Owner/occupier objectives - the owners/occupiers of the land typically have an interest from the land. This factor will be controlled through management agreements and the SSSI legislation. An operational limit is not required.

Weather conditions - Weather conditions have an effect on the breeding success of the lesser horseshoe bats. In particular, poor weather conditions during the adult breeding season will reduce opportunities for foraging and therefore affect adult condition and reproductive outputs. This factor is outside the influence of the site manager and an operational limit is not required.

5. ASSESSMENT OF CONSERVATION STATUS AND MANAGEMENT REQUIREMENTS

This part of the document provides:
- A summary of the assessment of the conservation status of each feature.
- A summary of the management issues that need to be addressed to maintain or restore each feature.

5.1 Conservation Status and Management Requirements of Feature 1: Greater Horseshoe Bat *Rhinolophus ferrumequinum* (EU Species Code: 1304)

Conservation Status of Feature 1

The greater horseshoe bat numbers of Newton Court Stable Block SSSI are monitored annually in June. The assessment found the SSSI to be in **Favourable condition**. But FCS is **Unfavourable declining**

Newton Court Stable Block SSSI *Current assessments are:*
MU1 Unfavourable declining

Management Requirements of Feature 1
The current status of the feature overall is unfavourable. The following outlines which attributes are considered favourable/unfavourable at each site. The site-specific monitoring report provides more detail on the condition of the site.

Building condition
The external condition of Newton Court is currently in a poor state. While the roof is largely intact and provides a waterproof environment for the roost, holes in the fabric of the roof allow heat loss and too much light into the roost. The current roof is tin causing large fluctuations in diurnal temperature making the roost too hot during the day and too cool at night. However, this appears to have no effect on the bat population. The building is currently structurally stable due to recent remedial work, but this is unlikely to be enough to maintain it in the long term.

Habitat management
The habitat surrounding Newton Court is of paramount importance to maintaining the population. The loss of flight lines in the form of walls, hedges or woodland rides within 1km around the roost should be prevented, as this is where juvenile bats learn to forage and navigate. There should be a similar aim to maintain or improve the quality of woodland and grazed pasture around and between areas identified as being used by the bats. Management of river habitats in the area is also critical due to the diversity of insect life that sustains the bats.

The overall aim for the landscape surrounding Newton Court is to improve the feeding opportunities for the greater horseshoe bats and the fight links between these feeding areas and the roosts (nursery, hibernation and transitory). Increases in the amount of land that is cattle grazed, development of 'less managed' bushier hedgerows and conversion of improved grassland to semi-improved grassland, particularly close to the notified nursery roost, would improve the extent and quality of available greater horseshoe bat feeding habitat.

5.2 Conservation Status and Management Requirements of Feature 2: Lesser Horseshoe Bat *Rhinolophus hipposideros* (EU Species Code: 1303)

Conservation Status of Feature 2
The lesser horseshoe bat numbers for all component SSSIs are annually monitored. The assessment of all 3 component SSSIs showed lesser horseshoe bats to be favourable in two of the three areas. As all of the three SSSIs units have to be in good condition for the LHB overall to be favourable the feature is in **unfavourable condition**, and in this case we can give condition information at the unit level**.**

Llangovan Church SSSI Current assessments are:
MU1 Favourable maintained
Mwyngloddfa Mynydd Bach SSSI Current assessments are:
MU1 Favourable maintained
Wye Valley Lesser Horseshoe Bats SSSI Current assessments are:
MU1 Favourable maintained
MU2 Unfavourable declining
MU3 Unfavourable maintained
MU4 Unfavourable declining

Management Requirements of Feature 2
The current status of the feature overall is unfavourable. The following section outlines which attributes are considered favourable/unfavourable at each site. The site-specific monitoring report provides more detail on the condition of the site.

Structure Condition

At **Mwyngloddfa Mynydd-Bach** structural integrity of the rock forming the adit may require management to prevent further collapse. Rockfall deep within the adit should not affect the viability of the mine as a habitat, but rockfall closer to the entrance may block access and could result in the complete loss of this site as a hibernaculum roost. Given the current unsupported state of the rock, collapse should be considered imminent.

Habitat management

The habitat surrounding these sites is of paramount importance to maintaining the population. The loss of flight lines in the form of walls, hedges or woodland rides within 1km around the roost should be prevented, as this is where juvenile bats learn to forage and navigate. There should be a similar aim to maintain or improve the quality of woodland and grazed pasture around and between areas identified as being used by the bats. Management of river habitats in the area is also critical due to the diversity of insect life that sustains the bats.

The overall aim for the landscape surrounding the management units is to improve the feeding opportunities for the lesser horseshoe bats and the fight links between these feeding areas and the roosts (nursery, hibernation and transitory). Increases in the amount of land that is cattle grazed, development of 'less managed' bushier hedgerows and conversion of improved grassland to semi-improved grassland, particularly close to the notified nursery roost, would improve the extent and quality of available lesser horseshoe bat feeding habitat.

Llangovan Church – no issues except surrounding habitat.

Mwyngloddfa Mynydd Bach – no issues except surrounding habitat.

Wye Valley Lesser Horseshoe Bats SSSI

MU1 – no issues, but important to continue liaison with owner/occupiers and monitor the progress of planned extension.
MU2 – issue with declining numbers needs to be investigated, possibly another unknown roost in the area.
MU3 – no issues, but important to continue liaison with owner/occupiers.
MU4 – issue with declining numbers, requires investigation into possible reasons including building condition.

Surrounding habitat management important for all units.

6. ACTION PLAN: SUMMARY

This section takes the management requirements outlined in Section 5 a stage further, assessing the specific management actions required on each management unit. This information is a summary of that held in CCW's Actions Database for sites, and the database will be used by CCW and partner organisations to plan future work to meet the Wales Environment Strategy targets for sites.

Unit Number	CCW Database Number	Unit Name	Summary of Conservation Management Issues	Action needed?
1	000059	Llangovan Church	No issues	No
2	000060	Mwyngloddfa Mynydd-bach (pond cottage mine)	No issues	No
3	000061	Newton Court Stable Block	The building is structural unsound and in need of urgent repair. Currently in contact with owners to try and get an agreement for works.	Yes
4	000062	Itton Court Stud	No issues	No
5	000064	Penallt Church	Issue of declining bat numbers, investigate possible new roost near by.	Yes
6	000065	Tregeiriog	Issue of declining bat numbers, investigation needed into building condition - its too cold!	Yes
7	000066	The Priory	No issues	No

7. GLOSSARY

This glossary defines the some of the terms used in this **Core Management Plan**. Some of the definitions are based on definitions contained in other documents, including legislation and other publications of CCW and the UK nature conservation agencies. None of these definitions is legally definitive.

Action A recognisable and individually described act, undertaking or **project** of any kind, specified in section 6 of a **Core Management Plan** or **Management Plan**, as being required for the **conservation management** of a site.

Attribute A quantifiable and monitorable characteristic of a **feature** that, in combination with other such attributes, describes its **condition**.

Common Standards Monitoring A set of principles developed jointly by the UK conservation agencies to help ensure a consistent approach to **monitoring** and reporting on the **features** of sites designated for nature conservation, supported by guidance on identification of **attributes** and monitoring methodologies.

Condition A description of the state of a feature in terms of qualities or **attributes** that are relevant in a nature conservation context. For example the condition of a habitat usually includes its extent and species composition and might also include aspects of its ecological functioning, spatial distribution and so on. The condition of a species population usually includes its total size and might also include its age structure, productivity, relationship to other populations and spatial distribution. Aspects of the

habitat(s) on which a species population depends may also be considered as attributes of its condition.

Condition assessment The process of characterising the **condition** of a **feature** with particular reference to whether the aspirations for its condition, as expressed in its **conservation objective**, are being met.

Condition categories The **condition** of **feature** can be categorised, following **condition assessment** as one of the following[2]:

Favourable: maintained;
Favourable: recovered;
Favourable: un-classified
Unfavourable: recovering;
Unfavourable: no change;
Unfavourable: declining;
Unfavourable: un-classified
Partially destroyed;
Destroyed.

Conservation management Acts or undertaking of all kinds, including but not necessarily limited to **actions,** taken with the aim of achieving the **conservation objectives** of a site. Conservation management includes the taking of statutory and non-statutory measures, it can include the acts of any party and it may take place outside site boundaries as well as within sites. Conservation management may also be embedded within other frameworks for land/sea management carried out for purposes other than achieving the conservation objectives.

Conservation objective The expression of the desired **conservation status** of a **feature,** expressed as a **vision for the feature** and a series of **performance indicators**. The conservation objective for a feature is thus a composite statement, and each feature has one conservation objective.

Conservation status A description of the state of a **feature** that comprises both its **condition** and the state of the **factors** affecting or likely to affect it. Conservation status is thus a characterisation of both the current state of a feature and its future prospects.

Conservation status assessment The process of characterising the **conservation status** of a **feature** with particular reference to whether the aspirations for it, as expressed in its **conservation objective**, are being met. The results of conservation status assessment can be summarised either as 'favourable' (i.e. conservation objectives are met) or unfavourable (i.e. conservation objectives are not met). However the value of conservation status assessment in terms of supporting decisions about **conservation management**, lies mainly in the details of the assessment of feature **condition**, **factors** and trend information derived from comparisons between current and

[2] See JNCC guidance on Common Standards Monitoring http://www.jncc.gov.uk/page-2272

previous conservation status assessments and condition assessments.

Core Management Plan A CCW document containing the conservation objectives for a site and a summary of other information contained in a full site **Management Plan**.

Factor Anything that has influenced, is influencing or may influence the **condition** of a **feature**. Factors can be natural processes, human activities or effects arising from natural process or human activities, They can be positive or negative in terms of their influence on features, and they can arise within a site or from outside the site. Physical, socio-economic or legal constraints on **conservation management** can also be considered as factors.

Favourable condition See **condition** and **condition assessment**

Favourable conservation status See **conservation status** and **conservation status assessment.**[3]

Feature The species population, habitat type or other entity for which a site is designated. The ecological or geological interest which justifies the designation of a site and which is the focus of **conservation management**.

Hibernaculum Any site used by and animal for hibernation. In bats, this can include caves, mines, and holes in trees.

Integrity See **site integrity**

Key Feature The habitat or species population within a **management unit** that is the primary focus of **conservation management** and **monitoring** in that unit.

Management Plan The full expression of a designated site's legal status, **vision**, **features**, **conservation objectives**, **performance indicators** and management requirements. A complete management plan may not reside in a single document, but may be contained in a number of documents (including in particular **the Core Management Plan**) and sets of electronically stored information.

Management Unit An area within a site, defined according to one or more of a range of criteria, such as topography, location of **features**, tenure, patterns of land/sea use. The key characteristic of management units is to reflect the spatial scale at which **conservation management** and **monitoring** can be most effectively organised. They are used as the primary basis for differentiating priorities for conservation management and monitoring in different parts of a site, and for facilitating communication with those responsible for management of different parts of a site.

Monitoring An intermittent (regular or irregular) series of observations in time, carried out to show the extent of compliance with a formulated standard or degree of deviation from an expected norm. In **Common Standards Monitoring**, the formulated standard is the quantified expression of favourable **condition** based on **attributes**.

[3] A full definition of favourable conservation status is given in Section 4.

Operational limits The levels or values within which a **factor** is considered to be acceptable in terms of its influence on a **feature**. A factor may have both upper and lower operational limits, or only an upper limit or lower limit. For some factors an upper limit may be zero.

Performance indicators The **attributes** and their associated **specified limits**, together with **factors** and their associated **operational limits,** which provide the standard against which information from **monitoring** and other sources is used to determine the degree to which the **conservation objectives** for a **feature** are being met. Performance indicators are part of, not the same as, conservation objectives. See also **vision for the feature**.

Plan or project **Project:** Any form of construction work, installation, development or other intervention in the environment, the carrying out or continuance of which is subject to a decision by any public body or statutory undertaker.
Plan: a document prepared or adopted by a public body or statutory undertaker, intended to influence decisions on the carrying out of **projects.** Decisions on plans and projects which affect Natura 2000 and Ramsar sites are subject to specific legal and policy procedures.

Site integrity The coherence of a site's ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it is designated.

Site Management Statement (SMS) The document containing CCW's views about the management of a site issued as part of the legal notification of an SSSI under section 28(4) of the Wildlife and Countryside Act 1981, as substituted.

Special Feature See **feature**.

Specified limit The levels or values for an **attribute** which define the degree to which the attribute can fluctuate without creating cause for concern about the **condition** of the **feature**. The range within the limits corresponds to favourable, the range outside the limits corresponds to unfavourable. Attributes may have lower specified limits, upper specified limits, or both.

Unit See **management unit.**

Vision for the feature The expression, within a **conservation objective**, of the aspirations for the **feature** concerned. See also **performance indicators.**

Vision Statement The statement conveying an impression of the whole site in the state that is intended to be the product of its **conservation management.** A 'pen portrait' outlining the **conditions** that should prevail when all the **conservation objectives** are met. A description of the site as it would be when all the **features** are in **favourable condition**.

8. REFERENCES AND ANNEXES

Billington,G., 2005: Monitoring Greater Horseshoe Bats in the Wye Valley through radio tracking and field survey to assess habitat use and condition

Morgan, P., 2006: Monitoring the Welsh Colonies of Lesser Horseshoe Bats in the Wye Valley

Wilkinson, K., 2005: Draft Performance Indicators for Greaters

Wilkinson, K., 2005: Draft Performance Indicators for Lessers

Stebbings, R. E., 1995: CCW, Cardiff