

Site unitisation – decision-making for conservation management

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1 Management aims

The issues discussed in this chapter build on the prioritisation process discussed in another section on [“Identifying the Conservation Priority”](#). We assume here that we have already:

- a) Decided which habitats and species are our conservation priorities;
- b) Considered our long-term strategy for safeguarding these habitats and species into the future;
and
- c) Determined the resources available for managing the priority habitats and species.

The range and number of components that could be included in a management plan are almost endless (NCC, 1989, Alexander, M. 2008, Alexander, M. 2010) and there is no intention to repeat them all here: the focus here is to provide guidance for setting well-informed, meaningful, clear and measurable management aims.

Before the introduction of the Habitats Directive (European Commission, 1992), the management aims for a nature conservation project were typically underpinned by the phrase ‘to maintain and enhance’, referring to the biodiversity of whatever habitat and/or protected area was being managed. This sounds like a reasonable aim but, in practice, it is meaningless. For practical purposes, first we must decide whether we want to keep what we have now (maintain) or whether we want to increase the extent or biodiversity of the habitat or site (enhance/restore). In making this decision, we should also consider whether enough of the habitat is capable of supporting the more sensitive species that should be associated with it. In other words, are we content with the current extent, distribution and quality of the key habitat, both on our site and within our region?

Secondly, as we have never managed to document the biodiversity of a site, we are never in a position to assess whether we have maintained it or enhanced it. However, if we have already identified which habitats and species are the conservation priorities on a site, then we can focus our skills and resources on a more realistic and measurable task. This is particularly true if we can identify reliable indicators of condition and develop reliable methods to assess them. This may enable us to infer some increases in biodiversity at least, without requiring either the skills or resources to provide hard evidence of this.

Most recent management plans list the important habitats and species on a site, but rarely specify what to prioritise if insufficient resources are available to carry out all of the recommended management actions. As this is invariably the situation, we should always list the management priorities in priority order, so that it is absolutely clear what the highest management priority is and what to do next when that has been achieved. The only plan that I have seen that does this was for Aberlady Bay in Scotland (Usher, 1973): this was long before recent management planning guidance was produced.

For practical conservation purposes, a management plan should provide a set of clear and prioritised set of management aims, each expressing:

1. What we want our management to achieve, defined in terms that allow us to recognise when we have achieved it;
2. Where to carry out the management; and, if possible;
3. The timescale for delivery.



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The sections below describe a process that was developed to facilitate decisions on what we want to achieve and where. An adaptation of this has been used for protected sites in Wales, but the model can be applied equally well to parcels of land in the wider countryside.

2 Site unitisation

'Site unitisation' was developed as part of the conservation planning process in Wales. The basic principle underpinning site unitisation is that we should identify which habitat or species, if any, should be the management priority for each discrete management unit. We should also indicate whether any other important habitats or species are known to be present in the management unit and whether they are likely to be impacted positively or negatively by the proposed management. The management priority in a management unit is nearly always a habitat, because even if the conservation priority in a unit is a species, our management response will almost always focus on its habitat: we rarely directly manage the species, except in reintroduction schemes. Table 2.1 shows the definitions used to identify how each management unit should contribute to the overall conservation value of the protected area.

The development phase of a site unitisation plan requires the participation of the land owners, the land managers and ecologists. The ecologists must be familiar with a) the ecological requirements of the important habitats and species, b) the local distribution of the important habitats and species on the site and c) the regional distribution of the important habitats and species on the site. As a general rule, it is better to involve as many of the important stakeholders as possible at the outset (especially those likely to be affected by the decisions), as this will also reduce the likelihood of resentment and resistance as the project moves into its application phase. It is always better to be aware of any barriers to progress early in proceedings rather than after the decisions have been made.

The main purpose of the unitisation process is to form the basis for well-informed conservation management decisions. Not all site managers are comfortable with the process because it means favouring some habitats and species over others. However, unless the conservation management programme is fully resourced then this will happen anyway, just in a less well considered and ad hoc process. The alternative is to divide the management funding equally which, in all probability, will mean that no habitat or species will be adequately protected into the future, though they will all be discriminated against equally.

3 Caeau Cefn Cribwr SSSI - A site unitisation case study

Caeau Cefn Cribwr is an area of grassland habitat in the UK that is protected both at the national level as a Site of Special Scientific Interest (SSSI) and at the European level as part of a Special Area of Conservation (SAC). The site supports one habitat of European importance, the *Molinia* meadows (6410) habitat which is listed in Annex I of the Habitats Directive (European Commission, 1992), and one species of European importance, the butterfly *Euphydryas aurinia* (1065), which is listed in Annex II of the Habitats Directive. The site also supports habitats and species protected at the national level in the UK, namely the marshy grassland habitat (which includes the *Molinia* meadows Annex I habitat), Neutral grassland, *Scorzonera humilis* (at one of only four UK localities), *Thelyptris palustris* (locally rare in Wales) and *Myrica gale*.

Although *Euphydryas aurinia* is of European importance, Cefn Cribwr is only a satellite site in the local species metapopulation, with the butterfly breeding only occasionally and in very small numbers. By contrast, although not of European importance, the population of *Scorzonera humilis* (Figure 1) is believed to be the largest in the UK.



Figure 1 *Scorzonera humilis* is a priority species at Caeau Cefn Cribwr because this site holds the largest population of the species in the UK.

Table 1 The definitions used in the site unitisation process. The following six classes are used to identify the main focus of the management in each management unit and to indicate how the remaining important habitats and species will be impacted as a consequence.

Class	Definition
PH	A 'Priority Habitat' in the management unit, i.e. the habitat that is the main focus of management and monitoring effort, perhaps because of the dependence of a priority species (see PS below). There will rarely be more than one Priority Habitat in a unit.
PS	A 'Priority Species' can drive both the selection and management of the Priority Habitat
PI	Important habitats and species present in a unit that are not the main focus of the management or monitoring, but that are expected to benefit from a positive impact (PI) as a result of the management of the priority habitat in the unit. These are not selected as a 'Priority' because: <ul style="list-style-type: none"> a) they are present in the unit but are of less conservation importance than the priority habitat or species; 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 compatible with the management needs of the priority feature(s).
NI	An infrequently used category where features are at risk of decline within a unit as a consequence of the management needs of the priority feature(s), i.e. likely to suffer a Negative Impact: these cases will usually be compensated for by management elsewhere on the site or in the region.
NQ	Management units with no special feature present but with 'non-qualifying' habitat of importance for the management of features elsewhere on a site e.g. a livestock over-spill area included within the designated boundaries.*
X	Habitats or species not present in the management unit.

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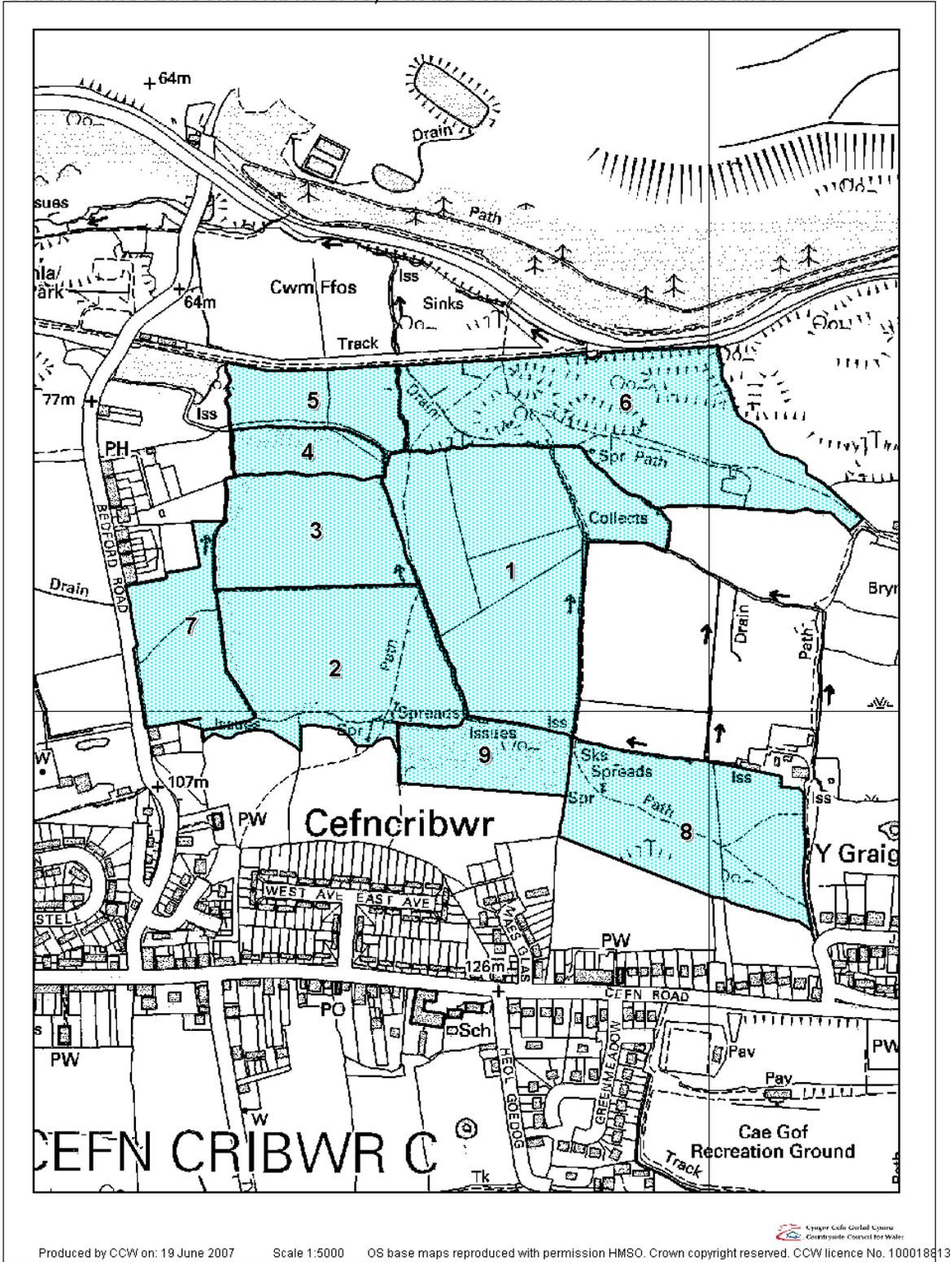


Figure 2 The management units at Caeau Cefn Cribwr SSSI are numbered 1-9. The main focus of the management in each unit and how this management will impact on the remaining important habitats and species present is shown in Table 2.2.

Table 2 A site unitisation table for Caeau Cefn Cribwr SSSI: this shows the management priorities in Management Units 1 to 9 and how the proposed management will have an impact on the other important habitats and species present in each unit.

Cefn Cribwr	Management unit								
	1	2	3	4	5	6	7	8	9
SAC	✓	✓	✓	✓	✓				
SSSI	✓	✓	✓	✓	✓	✓	✓	✓	✓
CCW ownership			✓	✓			✓		
Annex I / Annex II									
Molinia Meadows (6410)	PH	PH	PH	NQ	X	X	X	X	X
Euphydryas aurinia 1065)	PI	PI	PI	NQ	PS	PI	PS	PS	PI
SSSI habitats / species									
Marshy grassland	PI	PI	PI	NQ	PH	PI	PH	PH	PI
Neutral grassland	PI	X	X	NQ	PI	PH	X	X	PH
Scorzonera humilis	PS	PS	PS	NQ	X	X	X	X	X
Thelyptis palustris	X	X	X	NQ	X	X	PI	X	X
Myrica gale	X	PI	X	NQ	X	X	X	PI	X

4 Rationale underpinning the site unitisation decisions and the management aims

It is important to provide the rationale underpinning the decisions made during the site unitisation process (Table 2.2) and the development of the closely related management aims. Explaining the rationale underpinning our decisions will help to reduce the likelihood of management discontinuity, e.g. as a consequence of personnel changes.

The decisions shown in the site unitisation table for Caeau Cefn Cribwr SSSI (Table 2.2) have been interpreted into the prioritised management aims shown in Table 2.3. The rationale underpinning these decisions takes account of the importance of the habitats and species both at the European importance and UK scales.

Whenever the *Molinia* meadows Annex I habitat was present in a management unit, it was identified as the Priority Habitat. However, although *Euphydryas aurinia* (an Annex II species) was also associated with the same management units, it was not selected as the Priority Species in any unit. This is because there is a nationally important population of *Scorzonera humilis* in units 1, 2 and 3 while *E. aurinia* is an infrequent visitor and breeder on the site. Furthermore, the habitat management that creates habitat suitable for *S. humilis* will also create suitable breeding habitat for *E. aurinia*.

This combination of an internationally important habitat and a dependent nationally important species underpinned the selection of units 1, 2 and 3 as the management priorities at Caeau Cefn Cribwr. The fourth management priority is unit 7 which has a locally important population of *Thelyptis palustris*. In terms of conservation strategies, this equates to CS1 in Chapter 1, the 'hold on to what we have got' strategy.

Table 3 This table shows the prioritised management aims at Caeau Cefn Cribwr SSSI, informed by the decisions made during the site unitisation process (Table 2).

Management aim		To maintain the <i>Molinia</i> meadows habitat at Caeau Cefn Cribwr in favourable condition where:	
Extent	Upper limit	None set	
	Lower limit	As mapped in 1994	
Quality	Lower limit	Management priority 1 - In unit 1	>70% of the <i>Molinia</i> meadows is in good condition
		Management priority 2 - In unit 2	>60% of the <i>Molinia</i> meadows is in good condition
		Management priority 3 - In unit 3	>60% of the <i>Molinia</i> meadows is in good condition
Management aim		To maintain the <i>Thelypteris palustris</i> population in favourable condition where:	
Extent	Upper limit	None set	
Extent	Lower limit	As mapped in 1994	
Quality	Lower limit	Management Priority 4 – In unit 7	>15% of the unit should be dominated by <i>Thelypteris palustris</i>
Priority species		<p><i>Scorzonera humilis</i> is a priority species in each of units 1, 2 and 3, and strong colony is to be present in each of these units.</p> <p><i>Thelypteris palustris</i> is a priority species in unit 7, and a strong population of this species is to be present in this unit</p>	

5 Rationale underpinning the management aims

The management aims for the *Molinia* meadows habitat at Caeau Cefn Cribwr were based on the distribution of the *Scorzonera humilis* within the habitat in 2010. At this time, the Lower limits for Units 1, 2 and 3 at Caeau Cefn Cribwr reflected the estimated extent of habitat in optimum condition for *Scorzonera humilis*. As the *Molinia* meadows habitat at this site supports the strongest UK population for this nationally rare species, we would not want to see a reduction in the amount of grassland in optimum condition for *Scorzonera*. The management priority of each unit is identified in the table.

Definitions of how to recognise the *Molinia* meadows habitat in optimum condition and what would constitute a strong population of *Thelypteris palustris* will be given in the condition indicators for the monitoring project. Further information on the development of condition indicators can be found in the Eurosites Condition Indicator Guidance document.

When appropriate management has been secured in these units, the stakeholders should then reconvene to consider their options. This could be to commit additional resources to the management of the other units within the site boundary or perhaps to switch to a different conservation strategy



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and bring adjacent areas of *Molinia* meadows habitat (outside the site boundary) under restoration management (see Eurosites Guidance document on 'Conservation strategies').

6 Summary

The management aims must inform a prioritised set of management actions and the development of condition indicators for monitoring. These aims must be well-informed, clearly defined and measurable. A 'site unitisation' process has been developed to facilitate well-informed management aims. This process identifies which habitat or species, if any, should be the management priority for each discrete management unit within protected areas for conservation. It also prompts good practice in the need to consider a) whether any other important habitats or species are known to be present in the management unit and b) whether they are likely to be impacted positively or negatively by the proposed management. After the management aims have been agreed and finalised, it is good practice to provide the rationale underpinning them.

References

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