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Biodiversity Offsetting Pilots

Guidance for offset providers

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Introduction

1. Biodiversity offsets are conservation activities designed to deliver biodiversity benefits in compensation for losses, in a measurable way. Biodiversity offsets are distinguished from other forms of ecological compensation by the requirement for measurable outcomes: the losses resulting from the impact of the development and the gains achieved through an offset are measured in the same way.

2. As announced in the Natural Environment White Paper[1], biodiversity offsetting is being piloted in England for 2 years, from April 2012. Developers in pilot areas required to provide compensation for biodiversity loss under planning policy can choose to do so through offsetting.

3. If developers choose to use offsetting, they will either need to provide the offset themselves, or use an offset provider. **This guidance is for both developers looking to provide their own offset, and other organisations or individuals that want to provide offsets for developers.**

4. If you are in one of the six biodiversity offsetting pilot areas (Doncaster, Devon, Essex, Greater Norwich, Nottinghamshire or Warwickshire with Coventry and Solihull), you should also contact your local authority to see if they have produced any further information to supplement this national guidance note. They will also want to know that you are interested in providing biodiversity offsets.

5. It will also be useful to make early contact with the Natural England biodiversity offsetting adviser in the area, as they will be providing some support to the local authorities, and assessing the offsetting projects put forward.

6. If you are using biodiversity offsetting outside one of the pilot areas or undertaking any relevant work, we would be grateful if you could let us know, so that we can share information and best practice. You can get in touch with us at bio-offsetting@defra.gsi.gov.uk

Further information

7. This document is a step by step guide to what you need to do to be an offset provider. Further information and background about biodiversity offsetting is available on Defra's website[2], including:

- guidance for developers using biodiversity offsetting, which explains how to calculate the impact of a development and the resulting offsetting requirement

[1] http://www.defra.gov.uk/environment/natural/whitepaper/

[2] http://www.defra.gov.uk/environment/natural/biodiversity/uk/offsetting/

- more about the participating local authorities and their approaches
- general information about what biodiversity offsetting is and why it is being piloted. A range of documents explain the thinking on various issues, and the approach we have taken to designing the pilot, including:
    - the rationale and explanations behind the approach described in this document
    - why offsetting as proposed focuses on habitat
    - the principles we have used to design the approach to the offsetting pilot

What does this guidance cover?

- The basics – what does an offset provider do?
- Can you be an offset provider: a checklist of the essentials and some things to think about
- A step by step guide to calculating how many units of biodiversity your offset project can offer
- Guidance on providing an offset that involves hedgerows
- Standards and getting your offset quality assured for the pilot
- Examples

The basics

What does an offset provider do?

10. Offset providers supply offsets to developers who, as a result of the requirements of planning policy, must provide compensation for biodiversity loss resulting from development activity. An offset provider delivers a quantifiable amount of biodiversity benefit to offset the loss of biodiversity resulting from development. The losses and gains are measured in the same way, even if the habitats concerned are different. In the biodiversity offsetting pilot, the measurement is done in 'biodiversity units', which are the product of the size of an area, and the distinctiveness and condition of the habitat it comprises. The assessment of biodiversity units lost and gained can be calculated using the approach set out in this guidance, and the separate guidance note for developers.

11. Offsets can involve habitat expansion (creation) or restoration.

- expansion (creation): establish priority habitat[3] on land where it is not present and where no significant relicts of the habitat currently exist

- restoration: improve the condition of the existing habitat resource

12. Offset providers must provide additional benefits: offsets cannot be designed simply to maintain condition or extent.

Who can provide offsets, and what is an offset project?

13. An offset provider is an individual or organisation who is willing to implement a conservation project, resulting in biodiversity benefits, for use as offsets, in line with this guidance. These actions may be implemented in one or more locations. A simple project could involve the creation of an area of new habitat or improvement of existing habitat which provides direct compensation for a single specific development. A more complex example could involve a large multi-habitat site on which the units of biodiversity created are used by a number of different developers in compensation for several different developments.

14. Note that, if the developer chooses to meet their planning obligations by purchasing offsets from someone else, it is the units of biodiversity gain that are sold. The developer is not buying the biodiversity itself, or the land that it stands on. The units are units of biodiversity: they are not an attempt to put a price on biodiversity. The cost of providing an offset will be calculated by the offset provider, on a case-by-case basis.

15. In the biodiversity offsetting pilot areas, offset projects will be assessed by Natural England, who will make a recommendation to the local authority on whether the offset project is likely to deliver the biodiversity gains proposed, measured in biodiversity units. The decision on whether an offsetting project is acceptable as compensation for biodiversity loss is ultimately for the local authority to take.

Can you be an offset provider? A checklist of the essentials

- ✓ Each pilot area will have **a strategy for offsetting**, that sets out the type of offsets it would like to see (e.g. priority habitat types) and the locations it would like to see them in (e.g. linking together valuable wildlife sites, buffering watercourses etc). Your offset project would normally be expected to fit in with this strategy. Contact your local authority if you would like further details about their offsetting strategy.

[3] Section 41(S41) of the Natural Environment and Rural Communities (NERC) Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. Further information about this list can be found here: http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx

- ✓ Offsets need to last at least as long as the development project's impacts, and preferably in perpetuity. You need to be clear that you are able to commit to doing that: do you own the land, or are you in a position to put a long-term agreement in place? Have you put arrangements in place to manage the resources you will need to be able to deliver a long-term commitment?

- ✓ Offsets are about delivering something additional: **expanding (recreating) or restoring habitat** – offsets are not about maintaining what is there. Are you able to make that difference? You will be expected to produce a **Biodiversity Offset Management Plan (BOMP)** explaining what you will do, which provides the Natural England assessors and the relevant local authorities with the confidence that you can deliver the proposed biodiversity outcomes.

- ✓ If you plan to sell biodiversity units from your offset, your plans will need to include managing **finances** so you can maintain the offset in the long term. Does **your proposed price** for the biodiversity units adequately reflect the uncertainties of habitat creation and long-term management? Have you included the costs of long-term monitoring? Have you checked the implications for your business, for example, in terms of tax? If you are receiving other funding/grants for work on your land, is offsetting compatible with that?

A step by step guide to calculating how many biodiversity units your offset project can offer

16. Offset providers will need to calculate the number of units of biodiversity that their conservation actions will generate. The following steps take you through this process. They are the same whether you are looking at habitat creation or restoration. There are worked examples at the end of this guidance note.

Step 1 – Map the habitat type(s) your offset project covers

17. In the biodiversity offsetting pilot, habitats are pre-assigned to one of three habitat type bands, on the basis of their distinctiveness. Distinctiveness is a collective measure of biodiversity and includes parameters such as species richness, diversity, rarity and the degree to which a habitat supports species rarely found in other habitats. The list of habitats and their corresponding distinctiveness bands can be found at **Appendix 1 - Distinctiveness Bands for the Biodiversity Offsetting Pilot** which is available on Defra's website[4].

18. The first step is to **map the habitat types occurring on the areas covered by your offset project.**

[4] http://www.defra.gov.uk/environment/natural/biodiversity/uk/offsetting/

19. Each band of habitat distinctiveness has a number associated with it, as in **Table 1.** This is the starting point for calculating the number of "units" of biodiversity per hectare which your offset project could provide.

Table 1: Habitat distinctiveness[5]

Habitat Distinctiveness	
High	6
Medium	4
Low	2

Step 2 – Assess the baseline condition of the offset project

20. To understand the difference the offsetting project will make, it is important to understand the baseline condition of the habitat.

21. For the biodiversity offsetting pilot, we are using the methodology contained in the Farm Environment Plan handbook for the Higher Level Scheme, an agri-environment scheme run by Defra/Natural England, to assess habitat condition. The methodology can be found in the PDF document "Higher Level Stewardship: Farm Environment Plan (FEP) Manual"[6]

22. **Use this to assess the current condition of the different habitats covered by your offsetting project.** If you are assessing the condition at a sub-optimal time of the year, you may want to take a precautionary approach or wait until a more suitable time of year to carry out the ecological assessment.

23. The condition weighting, as shown in **Table 2**, is combined with the distinctiveness band to give an overall score expressed in biodiversity units per hectare, as set out in **Table 3** below.

[5] Based on the paper "Biodiversity Offsets", Treweek et al.

[6] http://naturalengland.etraderstores.com/NaturalEnglandShop/NE264. Please note that – you may need to scroll to the bottom of the internet page for the link to the manual.

Table 2: Condition weighting[7]

Habitat Condition	
Good	3
Moderate	2
Poor	1

Table 3: Matrix showing how condition and distinctiveness are combined to give the number of biodiversity units per hectare[8]

		Habitat distinctiveness		
		Low (2)	**Medium (4)**	**High (6)**
Condition	**Good (3)**	6	12	18
	Moderate (2)	4	8	12
	Poor (1)	2	4	6

24. You can now calculate the baseline value of your site, in biodiversity units.

[7] These categories relate to the distinctiveness categories in Appendix 1 as follows: High:3, Medium: 2, Low: 1

[8] Based on the paper "Biodiversity Offsets", Treweek et al.

Example:

A conservation group has 6 hectares of improved pasture. This habitat is in the low distinctiveness band (2 units per ha) and in poor condition (a condition weighting of 1).

The baseline value of the site, in biodiversity units, is therefore:

Habitat	Distinctiveness	Condition	Hectares	Number of Units
Improved pasture	2	1	6	(2x1x6) = 12

Step 3 - Decide what your aim is for the offset

25. Offset providers can either expand (i.e. create) or restore habitat to deliver units of biodiversity.

26. In consultation with stakeholders, the definition of "restore" that we are using for the offsetting pilot has been extended to include "restoration" as the term might more commonly be interpreted, i.e. improve the condition of the existing habitat resource where it is poor.

27. You know the initial condition for the habitat – what is the final condition you believe you can achieve?

Step 4: Decide how will you reach the end point, and whether work will need to be broken down into stages

28. We suggest that offset providers should only offer biodiversity units generated from a one step-change in condition (e.g. to improve the condition of the habitat from poor to moderate). This helps to minimise the risks of the conservation action failing to deliver. As management actions are undertaken and the habitat improves then in due course the project can be re-valued and further units released for sale (e.g. a further improvement in condition from moderate to good).

29. For certain habitats relatively rapid changes in condition might be possible. In the pilots, a decision about whether in these cases it is realistic to offer units representing more than one step in condition should be made in discussion with Natural England.

Step 5 - Decide how you want to manage the delivery risk

30. As an offset provider, you will be required to deliver the number of biodiversity units you have committed to provide. There are practical risks associated with the delivery of

offsets due to, for instance, uncertainty in the effectiveness of restoration or habitat creation/management techniques. You will need to manage this risk.

31. One approach to offset provision is to undertake the habitat restoration or expansion (creation) ahead of the offset being offered as compensation for development. This helps to eliminate the risk that the habitat restoration or creation will fail. If you do create habitat that could be used for offsetting before knowing who you will sell it too, you should still be assessed by Natural England at the start of your project. This is so that there is a record of the baseline condition, and you can prove that something additional has been delivered.

32. Completing the improvements ahead of the offset being sold is one way of removing the ecological risks associated with delivery. Unless the risk has been removed in this way it will be necessary to manage the risk on site. We suggest this is done through the use of a **'multiplier'**.

33. A multiplier can work in two ways:

- It can increase the number of hectares required to deliver a target number of units
- Alternatively, if it is not possible to increase the area of land (for example, because only a certain amount of land is under your control), the multiplier will have the effect of reducing the number of units that can be sold from a particular area of land.

34. In the examples provided in this note, we assume that the offset provider has a certain amount of land they are able to use as an offset, and will calculate how many units are available from that area of land.

35. Any habitat restoration or expansion (creation) is likely to have risks associated with it. Some habitats are more difficult than others to restore or expand, and there will therefore be different levels of risk associated with different habitats. However, for any particular habitat, restoration is likely to be lower risk than expansion.

36. At **Appendix 2** there is an indicative guide to broad categories of risk for different habitats. Offset providers will need to think about whether factors present at their particular site (such as substrate, nutrient levels, state of existing habitat) mean they need to increase or decrease these suggested multipliers. **Table 4** below summarises the suggested multipliers for different categories of delivery risk. These have been developed by Natural England using the best available evidence. Further background to this can be found in the 'Technical Paper: the metric for the biodiversity offsetting pilot in England', available on Defra's website[9].

[9] http://www.defra.gov.uk/environment/natural/biodiversity/uk/offsetting/

Table 4: Suggested multipliers for different categories of delivery risk

Difficulty of recreation/restoration	Multiplier
Very High	10
High	3
Medium	1.5
Low	1

Examples:

Example 1

An offset project will restore some Coastal and Floodplain Grazing Marsh. The baseline potential for the project is 10 biodiversity units. The difficulty of the restoration is low, so the multiplier is 1. 10 / 1= 10, so there is no change in the baseline number of units that the project can offer: they have 10 units available. This may change if they need to apply a spatial multiplier or the time discounting rate – further details on this are provided below.

Example 2

A different offset project is looking to restore some wet heath. They have calculated that an area of land they own has the baseline potential to deliver 27 units. Restoration of wet heath has a high difficulty rating, with a multiplier of 3.

27/3 = 9.

So the baseline of unit that the project is actually able to offer is 9 units.

Step 6 – If necessary, manage the spatial risk

Note: this section will not apply if your proposals are in line with the Local Authorities' offsetting strategy.

37. Offset project proposals would normally be expected to match the objectives in the local authorities' strategy for using biodiversity offsetting, in terms of the type of habitat involved and the location of the offset. Offset projects not in line with the local offsets strategy are unlikely to deliver the same level of biodiversity benefit in terms of their contribution to the wider network of sites and habitats in the area. If the project is not

consistent with the strategy, the local authority may not agree to accept it as effective compensation.

38. However, there may be situations where the local authority is prepared to accept an offset proposal located outside of the areas identified in the strategy. In this situation, the local authority may require the offset provider to manage the risk of the habitats contributing a lower level of biodiversity benefit by applying a spatial multiplier to the calculation of biodiversity units. **Table 5** sets out a suggested approach for offset providers to follow if they need to do this.

Table 5: Suggested multipliers to deal with spatial risk

Location parameters	Multiplier
Offset is in a location identified in the offsetting strategy	No multiplier required
Offset is buffering, linking, restoring or expanding a habitat outside an area identified in the offsetting strategy	2
Offset is not making a contribution to the offsetting strategy	3

Examples:

Example 1

An offset project will is delivering some priority habitat, in an area that the local authority has identified as being a target area for habitat creation and restoration – so no multiplier is applied.

Example 2

A different offset project is not in an area identified by the local authority's offsetting strategy as a priority area for habitat recreation and restoration. The baseline of units that the project would deliver is 20. The project is expanding an existing area of habitat and the local authority has decided that in this case they will accept it as compensation. The multiplier the local authority wants to apply is 2.

20/2 = 10.

So the project has the baseline potential to deliver 10 units.

Step 7 - Reflect the passage of time

39. Unless the enhancement in habitat condition has already been delivered prior to the units being offered as compensation there will be a mismatch in the timing of the impact (i.e. the loss of the biodiversity) and completed offset (i.e. delivery of compensatory habitat of a level of quality or maturity fully equivalent to the loss). Applying a time discount rate multiplier is a mechanism which allows this time lag be taken into account. Further background to time discounting can be found in the 'Technical Paper: the metric for the biodiversity offsetting pilot in England', available on Defra's website[10].

40. In the biodiversity offsetting pilots a time discounting rate of 3.5% will be applied.

41. The first part of this step is calculating how long it will take the habitat in your offset project to reach target condition. Then apply the time discount rate multiplier to it, as in **Table 6**.

Table 6: Multipliers for different time periods using a 3.5% discount rate

Years to target condition	Multiplier
5	1.2
10	1.4
15	1.7
20	2.0
25	2.4
30	2.8
32	3

42. The time discount multiplier should cover the whole period concerned, assuming a quality improvement from the baseline condition to the target condition. The calculations therefore do not need to take into account incremental increases in the quality of the habitat, and do not need to be re-done annually.

43. Offsets need to last at least as long as the project's impacts, and preferably in perpetuity. However, for practical purposes, there needs to be a limit on application of the discount rate used for time preference. A maximum multiplier of x3 to take account of temporal risk is proposed for the offsetting pilot.

[10] http://www.defra.gov.uk/environment/natural/biodiversity/uk/offsetting/

Example:

An offset project will take 5 years to reach its target condition. Its baseline potential number of biodiversity units is 24. The time discount multiplier applied for 5 years is 1.2.

24/1.2 = 20 biodiversity units

Hedgerows

44. Hedgerows are a very important feature within the English countryside. Their contribution, by area, to biodiversity in the landscape is far greater than even the most biodiversity rich habitats. They cannot therefore simply be treated as another habitat. For this reason, when a development results in the loss of hedgerows, that loss will need to be offset with 'like for like' habitat – i.e. an offset that involves hedgerows. Requirements relating to hedgerows will be measured in metres, rather than biodiversity units.

45. For offsetting projects, it is proposed that only recreation (in effect planting new hedges) is appropriate. This is because of the complexity of defining restoration and assigning metres of offset requirement to hedge restoration work.

46. When planting hedgerows as part of an offset project, the species mix should reflect that of a typical mature hedge within the target area, managed to best current practice.

Developer's requirements

47. By working through all of the steps above, you will know how many units of biodiversity offsetting you are able to offer from your project. Developers will be looking for a certain number of units – they may have varying degrees of interest in how those units are made up. You may be able to sell all your units to one developer, or to several.

48. Developers may have certain requirements for habitat types, depending on the impact of their development (including, as noted above, needing an offset project that includes a certain length of hedgerows).

49. If the habitat impacted by a development is in the high distinctiveness band, the offset will usually need to be 'like for like' i.e. it will need to create or restore the same type of habitat. In other cases, the offset does not need to be like for like. For habitat of medium distinctiveness, the offset should largely be made up of habitat from the same distinctiveness band or higher (i.e. habitat from the medium or high distinctiveness band). Where the habitat lost was low distinctiveness, the offset project should involve a 'trade up' in distinctiveness (i.e. be largely made up of habitat from the medium or high distinctiveness band). This is summarised in **Table 9**. This approach reflects the guiding principle that offsetting should result in an improvement in the extent or condition of the ecological network.

Table 9: Matching the habitat impacted with the offset project

Distinctiveness of habitat lost	Distinctiveness of habitat provided by an offset
High	High – and usually the same habitat type
Medium	Medium or high
Low	Medium or high

Standards and getting your offset quality assured for the pilot

50. Standards are important to ensure that the biodiversity benefits of offsetting are delivered. Standards are also important for giving developers, local authorities and the public confidence in the approach. If offsetting were used nationally in the future, there would probably need to be an independent body setting standards, and potentially certifying offset providers. This would not be a proportionate approach for the relatively small scale biodiversity offsetting pilot, but ensuring a certain level of quality is important, to ensure that biodiversity benefits are delivered, and that confidence in the approach is not undermined by poor quality projects.

51. In the pilots, Natural England will be assessing the offset providers, and quality-assuring their Management Plans, in order to advise local authorities on provider viability and the fitness-for-purpose of plans: are they robust and will they deliver the required number of units? Plans will be assessed in terms of their likely ability to deliver and sustain the proposed biodiversity units in the long-term. Providers will be assessed in terms of overall capability (e.g. resources, staff, skills, experience) and governance arrangements, particularly around land tenure, project management, risk management, and managing the funding effectively. The assessment will be based on information provided in the **Biodiversity Offset Management Plan (BOMP)**, and whether proposed actions are likely to deliver the proposed biodiversity benefits. Natural England may request further information from the offset provider, if necessary.

Table 10: Aspects of Biodiversity Offset Management Plan to be assessed by Natural England

Aspects of Biodiversity Offset Management Plan to be assessed by Natural England	
1. Organisational governance	Legal & Regulatory requirements
2. Project Management	Objectives Success measurement Baseline condition Project design Long-term management
3. Risk Management / Contingency planning	
4. Financial Management	
5. Resource Management	Location Land tenure Equipment Staff and skills
6. Stakeholder Engagement	

52. We expect that best practice will be followed in managing the offsets, and therefore reflected in the management plans. A large amount of published advice is available on habitat management for delivering conservation outcomes. Land managers are often the best people to make decisions about how habitats should be managed to deliver particular outcomes – i.e. the expansion or restoration activity that will deliver a change in condition. We therefore do not require a standard format to be followed for the management plans. Natural England has, however, produced a guide to management plans for National Nature Reserves (NNR) which is based on established good practice for site-based

planning for conservation management. A PDF copy can be downloaded from Natural England's website[11].

53. The NNR plan format covers factual information on the site including tenure, physical and biological features; objectives in terms of management policy, vision and objectives; and specific management projects, and a 5 year plan. This format is likely to be more detailed than necessary for small projects, but for larger offset projects a similar structured approach will be needed, given the need to plan for management that lasts at least as long as the development project's impacts, and preferably in perpetuity.

The process

54. In the pilot areas, offset providers should contact Natural England as soon as project plans have been formulated, even if this is before detailed management plans have been fully developed. This will allow Natural England advisers to provide some initial comments in the proposal, and clarify what level of detail will be necessary in the management plan in order for the viability of the proposal to be assessed

55. You will need to have your Biodiversity Offset Management Plan approved by Natural England (whose assessment will be in the form of a recommendation to the relevant Local Authority) before you can offer biodiversity units from your offsetting project as compensation for development projects within the offsetting pilot area. The Local Authority will need to be convinced that your project is capable of delivering the proposed biodiversity offsets in a suitable location, before agreeing their use in delivering planning obligations for specific developments.

56. In order to be able to assess the management plan and the viability of project proposals, the Natural England adviser will need to carry out an on-site visit to confirm your assessment of the initial condition of the habitat or extension (creation) site. This should ideally be at an appropriate season when features are visible.

57. There is no need to wait to establish the precise demand for the biodiversity units you will be offering through your proposed project. Natural England can approve a plan for a project without reference to its final use for offsetting for a specific development, so that it can be ready to be used as and when units are needed.

58. If you are starting work on a project (i.e. going beyond the planning stage and undertaking action on the ground) in advance of knowing who will use the units, and hoping to supply units from it at a later date, you will need to have the Biodiversity Offset Management Plan approved by Natural England before you make a start on the conservation work. If this isn't done, it will be impossible to demonstrate what additional biodiversity benefits have been achieved.

[11] http://naturalengland.etraderstores.com/NaturalEnglandShop/Man1

59. Your Biodiversity Offset Management Plan does not need to be approved by the local planning authority, although in some circumstances Natural England may need to refer to them, for example, if your proposed project falls outside the offsetting strategy for the area. However, some local authorities may decide they want to take a more active role. If you are in one of the six biodiversity offsetting pilot areas (Doncaster, Devon, Essex, Greater Norwich, Nottinghamshire or Warwickshire with Coventry and Solihull), you should also contact your local authority to see if they have produced any further information to supplement this national guidance note. They will also want to know that you are interested in providing biodiversity offsets.

60. You may want to advertise the fact that you have an offsetting project available to developers by making information about your offset available in other ways, e.g. on other websites.

Examples

Example 1

An offset provider is planning a project on a 4 hectare site, which is currently habitat of medium distinctiveness in moderate condition.

The baseline value of the site in biodiversity units is as follows:

Distinctiveness	Condition	Area (hectares)	Number of units
Medium (4)	Moderate (2)	4	4 x 2 x 4 = 32

The proposal is to improve the condition of the habitat from moderate to good.

Distinctiveness	Target Condition	Area (ha)	Number of units
Medium (4)	Good (3)	4	4 x 3 x 4 = 48

The calculation for the gross number of units available is therefore as follows:

Target number of units	Baseline number of units	Total number of units available
48	32	48-32 = **16**

The number of biodiversity units potentially available (16) is then subject to adjustments to take account of delivery risks, and time discounting.

Managing the delivery risk

The provider considers whether they need to use a delivery risk multiplier, to manage the practical risks of failing to deliver. They have no additional land available, so the impact of using multipliers to manage risks will be a reduction in the number of units available.

This example presents two scenarios.

Scenario 1:

For the habitat concerned, the level of difficulty in recreation / restoration is low. The suggested multiplier is therefore 1.

The total number of units available is unchanged (16/1 = 16)

Scenario 2: For the habitat concerned, the level of difficulty in recreation / restoration is medium. The suggested multiplier is 1.5

Therefore to take account of the delivery risk the total number of units available needs to be divided by 1.5.

16/1.5 = 10.7 units available

Taking time in to account

It will take 5 years for the habitat to reach target condition. The time discounting multiplier is therefore 1.2. Continuing with the two scenarios above

Scenario 1: No delivery risk multiplier has been used

16 / 1.2 = 13.3 units available

Scenario 2: A delivery risk multiplier has been applied meaning that the units available are 10.7

10.7 /1.2 = 8.9 units available for sale

The spatial element

Scenario 1: In line with best practice, the offset provider has proposed a project which matches the local authority's aims and priorities for the area. Therefore the local authority does not require any kind of multiplier to cover spatial issues to be applied.

The final number of biodiversity units available is 13.3

Scenario 2: The offset is not making a contribution to the local authorities offsetting strategy. A spatial risk multiplier of 1:3 is applied.

The final number of biodiversity units available for sale is 8.9 / 3 = 2.97

Example 2

An offset provider is planning to set up an offset on an area of 20 hectares. The land currently consists of a 10 hectare arable field and 20 hectares of degraded limestone grassland. The proposal is to revert the arable field to limestone grassland and to improve the condition of the existing grassland.

The baseline value of the site is as follows:

Habitat	Distinctiveness	Condition	Area (ha)	Number of units
Arable field	Low (2)	Poor (1)	10	2 x 1 x 10 = **20**
Limestone Grassland	High (6)	Poor (1)	20	6 x 1 x 20 = **120**
Baseline value				**140 units**

The proposal is to revert the arable field to grassland (a habitat of high distinctiveness) in moderate condition.

High distinctiveness (6) x moderate condition (2) = 12 units per ha for the target habitat.

And to move the existing grassland from poor condition to moderate condition

High distinctiveness (6) x moderate condition (2) = 12 units per ha for the target habitat.

The calculation for the gross number of units available is as follows:

Habitat	Baseline units	Target units	Units available (Target – baseline)
Arable field	20	(10ha x12) 120	**100**
Limestone Grassland	120	(20ha x12) 240	**120**
Total Gross units available			**220**

The reversion of arable land to limestone grassland is considered to be of a medium risk/difficulty, with a risk multiplier of 1.5.

The restoration of the existing grass is a low risk/difficulty, with a risk multiplier of 1.

The expectation is that it will take 10 years for the arable reversion to reach moderate condition, and 5 years for the existing grassland to reach moderate condition. The multiplier for 10 years is 1.4, and the multiplier for 5 years is 1.2.

The offset provider is not able to increase the area of land used for the project, so the effect of using the multipliers is to reduce the number of biodiversity units available.

The calculation of net units for sale (after multipliers have been applied) is as follows:

Habitat	Units	Risk multiplier	Time multiplier	Final number of units available
Arable field to grass	100	1.5	1.4	(100/1.5)/1.4 = **48**
Limestone Grassland	120	1	1.2	120/1)/1.2 = **100**
Total Net units for sale				**148**

Appendix 1

Appendix 1 - Distinctiveness Bands for the Biodiversity Offsetting Pilot is a separate document, which is available on Defra's website:

http://www.defra.gov.uk/environment/natural/biodiversity/uk/offsetting/ .

Appendix 2 – Risk factors for restoring or recreating different habitats *

* N.B: These assignments are meant purely as an indicative guide. The starting position with regard to substrate, nutrient levels, state of existing habitat etc will have a major impact in the actual risk factor. Final risks should be agreed locally as part of setting up the offset.

Habitats	Technical difficulty of recreating	Technical difficulty of restoration
Aquifer Fed Naturally Fluctuating Water Bodies	Very high/impossible	Medium
Arable Field Margins	Low	n/a
Blanket Bog	Very high/impossible	High
Calaminarian Grasslands	High	Medium
Coastal and Floodplain Grazing Marsh	Low	Low
Coastal saltmarsh	Medium	Medium
Coastal Sand Dunes	Very high/impossible	Medium
Coastal Vegetated Shingle	High	High
Eutrophic Standing Waters	Medium	Medium
Hedgerows	Low	Low
Inland Rock Outcrop and Scree Habitats	Very high/impossible	Medium
Limestone Pavements	Very high/impossible	High
Lowland Beech and Yew Woodland	Medium	Low

Lowland Calcareous Grassland	Medium	Low
Lowland Dry Acid Grassland	Medium	Low
Lowland Fens	Medium	Low
Lowland Heathland	Medium	Medium
Lowland Meadows	Medium	Low
Lowland Mixed Deciduous Woodland	Medium	Low
Lowland Raised Bog	Very high/impossible	Medium
Maritime Cliff and Slopes	Very high/impossible	High
Mountain Heaths and Willow Scrub	High	Medium
Oligotrophic and Dystrophic Lakes	Medium	Medium
Open Mosaic Habitats on Previously Developed Land	Low	Low
Ponds	Low	Low
Purple Moor Grass and Rush Pastures	High	Medium
Reedbeds	Low	Low
Saline lagoons	Low	Low
Traditional Orchards	Low	Low
Upland Calcareous Grassland	High	Medium
Upland Flushes, Fens and Swamps	High	Medium

Upland Hay Meadows	Medium	Low
Upland Heathland	Medium	Medium
Upland Mixed Ashwoods	Medium	Low
Upland Oakwood	Medium	Low
Wet Woodland	Medium	Low
Wet Heath	High	High
Wood-Pasture & Parkland	Medium	Low