

Biodiversity Net Gain Good Practice Principles for Development

Consultation Responses

LOGOS		
-------	--	--

Contents

1. Introduction	3
2. Consultation Responses	4
Acknowledgements.....	24
INSIDE BACK COVER.....	25
How you can get involved.....	25
BACK COVER.....	26

1. Introduction

CIRIA, CIEEM and IEMA are developing a set of Principles and associated Good Practice Guidance to help the UK industry achieve ‘Net Gain’ targets for biodiversity. They define ‘Biodiversity Net Gain’ as development that leaves biodiversity in a better state than before. A key aspect is for developers to work with local governments, wildlife groups, land owners and other stakeholders in order to support their priorities for nature conservation. Fundamentally, this approach to Net Gain is inclusive, and aims to strengthen links between biodiversity measures that developers implement and nature conservation work undertaken by local organisations.

The Principles will provide a framework to help those charged with achieving Biodiversity Net Gain make long-lasting contributions towards nature conservation. Adhering to the Principles will also provide a way for industry to demonstrate that projects followed good practice. The Good Practice Guidance will contain practical advice for implementing Net Gain, as well as case study examples, definitions of key concepts and the business case for Net Gain.

CIRIA, CIEEM and IEMA began this initiative by drafting good practice principles from UK and international sources. They refined the draft following initial consultation with various stakeholders including government, NGOs and industry. They then presented this refined version to over 450 professionals during a webinar on 22nd September 2016 when they sought view of attendees on key aspects of the Principles. The majority supported the approach proposed; the webinar questions and responses are shown in Table 1. The recording of the webinar can be viewed [here](#).

Table 1. Responses to webinar questions on key aspects of the Net Gain Principles

Question	Percentage of Respondents		
	Agree	Disagree	Maybe / Don't Know
Do you agree in giving flexibility by not restricting compensation for biodiversity losses to always be on site?	78%	6%	16%
<i>The principle is to ‘avoid losses of irreplaceable/vulnerable wildlife and, in exceptional circumstances when these occur, set out what should happen’.</i> Do you agree with this approach?	72%	2%	22%
The proposed approach is to give flexibility for the best decisions (with stakeholder input) regarding nature conservation, instead of a more prescriptive approach as found in some international guidance. Do you agree with the proposed approach?	76%	2%	22%
Do you agree approach for developers to engage stakeholders in finding practical solutions to secure Net Gain in perpetuity?	62%	4%	35%

1.1 This briefing note

This briefing note contains responses to questions and comments raised during the webinar. The Net Gain Project Team grouped the questions and comments into topics, and developed responses with members of their Advisory Sub Group. The topics are:

- **Measuring biodiversity**
- **Measuring baselines**
- **Stakeholders**
- **Enforcement and legislation**
- **Biodiversity offsetting**
- **A licence to trash**
- **Quality assurance**
- **Habitat banking**
- **Achieving net gains in biodiversity**
- **Additionality**
- **Urban situations**
- **Small developments**
- **Transparency**
- **Economic influences**
- **The business case**

The responses were made at the time of the webinar based on understanding of questions raised. They do not necessarily represent the specific views of individuals and organisations listed

2. Consultation Responses

Questions and comments raised during the webinar are shown in italics, with the responses in normal text.

Measuring biodiversity

What is your opinion on the use of DEFRA's draft offsetting metrics in order to quantify whether a no net loss is actually achieved within the footprint of a development.

[Defra's metric](#) is the first government-issued metric to calculate *all* losses and gains of biodiversity from a development project. Our understanding is that Defra intended the metric to help decision-makers meet legislative and policy requirements given the absence of an approach to quantify biodiversity losses from a development and identify adequate compensation. In other words, Defra's metric is a tool to inform requirements to compensate for biodiversity losses. That in itself is welcome because our legal system protects some, but not all, wildlife. While certain species are extensively protected, many are not, with the consequence that development can be 'legally compliant' but still result in biodiversity loss. Defra's metric enables us to better understand the full extent of biodiversity loss from a development and what's necessary to achieve no overall loss or a net gain in biodiversity.

The [evaluation](#) of Defra's pilot on biodiversity offsetting found that many felt using the metric during the planning process was beneficial. It provided a quantified, consistent, transparent and relatively simple process that - most importantly - accounted for more impacts on biodiversity than current practice. However, the metric was heavily criticised for being too crude, omitting key aspects such as wildlife.

There have been, and still are, discussions on changing Defra's metric. We understand that Natural England is assessing the potential for a species-based metric. But regardless of whether the metric stays the same or changes, no single number can represent the diversity of life. But metrics can help inform decisions on compensating for all losses of biodiversity from a development. So a crucial question is *how* Defra's metric (or any number for biodiversity) is used. Our approach is to use a metric for biodiversity in combination with ecological data. A metric can help understand the biodiversity outcomes from a development project (i.e. whether an overall loss, neutral or gain) and guide decisions on how much compensatory habitat is needed to achieve 'no net loss' or 'net gain'. But what type of habitat, which animals are to use it and all other ecologically-based decisions should be based on a comprehensive understanding of the biodiversity affected. This is especially important when compensating for the needs of individual species.

How can an organisation measure Net Gain? Particularly in unsafe environments (i.e. roadside where people based surveys are unsafe)

There are methods for measuring Net Gain, although these are still being refined. One example - Defra issued a metric for calculating losses and gains in biodiversity as part of a pilot on biodiversity offsetting. As mentioned above, it was the first government-issued metric available for industry to use when measuring progress towards targets for 'no net loss' and 'net gain' of biodiversity. Now the offset pilot has finished, Defra seems to be encouraging developers to use the metric to help achieve these targets. There are case studies (and our aim is that the Practical Guidance will contain these) where Defra's metric has been applied to large-scale projects and non-accessible areas (such as roadsides) using secondary data like aerial photographs, remote sensing etc combined, where possible, with ground surveys. All limitations were clearly explained and any assumptions made were clearly justified. Doing both these things is vital to using the metric as robustly as possible.

As mentioned in the webinar and above, the metric is only one piece of information for decisions on achieving Net Gains in biodiversity. Ecological information, such as information on the wildlife using a site, is just as important. This information can be obtained from various approaches including metrics other than Defra's. Also desk-based studies or use of drone imagery if site surveys are not possible, although in these situations, we recommend that limitations and assumptions are made clear and that a precautionary approach is taken. Anyone seeking to follow our approach to Net Gain will always need ecological information in order to achieve the goal of leaving biodiversity in a better state than before the project started. Such a goal cannot be achieved using numbers alone, but requires a comprehensive assessment of the biodiversity affected by the project.

In terms of developing an assessment tool for determining biodiversity 'units', are there any proposals to incorporate species considerations into the calculations. Some land uses with lower 'habitat' values (e.g. buildings) can still be valuable for species like bats and urban birds, but this is not recognised using any of the biodiversity unit calculation tools currently available. If we are talking about biodiversity surely we should be concerned with the whole ecosystem, not splitting habitats and species considerations apart.

We understand that Natural England is assessing the potential for a species-based metric: news on this should be posted on their website. Also, there's interesting work emerging on habitat suitability modelling for species (for example see Bellamy, Scott & Altringham 2013¹), which could be useful for designing species-focused compensation as part of ecological impact assessments.

We very much agree that, if we are talking about biodiversity, then we must consider the whole ecosystem. This especially resonates with the goals of this initiative: for development to leave biodiversity in a better state and support nature conservation priorities. As we mention above, Defra's metric is only one piece of information when making decisions on achieving Net Gain. We strongly recommend that anyone using the metric combines it with ecological information, such as a site's ecological functionality and the animals that use it. In other words, Net Gain should be based on a holistic assessment not just a number. Given the 'silo species' focus of our existing legislation, we hope that generates better outcomes for nature from development.

Do you envisage the Integrated Habitat System (IHS) being taken forward as the preferred habitat assessment method in the guidelines? If so would it be possible to make the definitions readily available to CIEEM/IEMA/CIRIA members?

The [Integrated Habitat System](#) (IHS) was developed by Somerset Records Centre and is available to purchase directly from the Centre, although IHS has not been updated since v2.0 in 2007.

Most ecological surveys for development use the [JNCC Phase 1 habitat categories](#), but many have identified issues regarding habitat classification. Work is underway to address these issues and develop a new habitat classification system, which is currently called the UK Habitat Classification.

For this initiative, we recognise that habitat classifications and assessments change over time. So our approach within the Principles is to state that methods should be "appropriate and industry-recognised". This is so the Principles remain applicable when habitat classifications and assessments are updated. Also data should be collected in a format that any habitat classification system could be used, i.e. record the floral species present and the faunal species they have the potential to support.

BREEAM have included the calculation based on the net gain and on flora, due to it being the only way that can be looked at with loss and gain, with the development of the Strategic Ecological Framework

¹ Bellamy, J., Scott, C. and Altringham, J. (2013) Multiscale, presence-only habitat suitability models: fine resolution maps for eight bat species. *Journal of Applied Ecology*; 50: 892-901.

- if you are familiar with it - how do you think this will benefit the developments that use BREEAM assessments?

We intend to engage with the BRE, especially to further explore how our Principles 'fit' with BREEAM and the Strategic Ecological Framework in practice (we hope to describe this in the Practical Guidance). We developed our Principles to give a structure whilst also providing flexibility, meaning more specific criteria, such as those for BREEAM, can be met.

Two things to note. Firstly, the BREEAM calculation does not include the condition of habitat whereas condition is assessed for Defra's metric. But BREEAM assessments do require identifying the species present on site. Secondly, some factors of the BREEAM assessment are given higher weightings than biodiversity. This can mean that, when all factors are scored, a project can score 'excellent' for BREEAM but does not achieve net gains in biodiversity. Also there are concerns about misuse of Defra's metric to claim net gains in biodiversity. So we intend to explore how our Principles can work with BREEAM and the Strategic Ecological Framework, but carefully to make sure all issues are addressed.

In most cases it should be possible to demonstrate No Net Loss or Net Gain, but it is important that the actual delivery and how this is measured over the long-term. This would require long-term monitoring and the will from the developer / decision maker to manage this.

Leaving a Net Gain legacy is a key aspect of this initiative. We agree this requires a fundamental shift towards long-term monitoring of developments, as well as political and commercial will to do this. But we hope that our Principles will highlight the importance of delivering Net Gain for the long-term, rather than it being side-stepped which often happens at the moment.

Our Principles include adopting "practical solutions" to securing Net Gain in perpetuity. We believe that there are innovative approaches to secure long-term monitoring and other aspects of in perpetuity. We hope to have case studies of these in the Practical Guidance, especially to illustrate how appropriate stakeholder collaboration, and choosing the best metrics and compensation for biodiversity losses, are essential to securing Net Gain in the long term.

Measuring baselines

Do the guidelines state how to define boundaries on what needs compensating for? Eg could/should the climate change impact on biodiversity resulting from airport expansion be included when assessing the impact of building a new runway for example – or is it just about compensating for direct impacts, eg loss of habitat where a runway is built? Hope that makes sense.

A great question! We plan to produce the Practical Guidance during 2017, when we will be conducting a series of engagement events to collect views and gather feedback on such issues – especially this one given it is critically important.

There are examples of Net Gain assessments that incorporated all the impacts on biodiversity that were assessed as part of the ecological impact assessment. This included indirect impacts on

biodiversity, as well as direct losses of habitat, regardless of whether these were considered 'insignificant' in the ecological impact assessments. We hope to draw on these and other experiences in the Practical Guidance to help define Net Gain boundaries.

How can we address the issue of when in time to take the 'baseline' habitat measure against which to judge the net loss/gain achieved? We often see semi-improved grassland ploughed a few months before a planning application, which then claims to achieve 'net gain'.

This is a really good question because deciding when to measure the baseline is critical. Unfortunately, such bad practice does occur. Truly tackling this issue requires greater tightening of planning regulations. But we hope that this Net Gain initiative will bring the issue under greater scrutiny. Firstly, we intend that our Guidance will make clear that any activities undertaken for the development must be factored into the calculation of losses and gains. Secondly, developments claiming to have followed this good practice for Net Gain must prove that the project left biodiversity in a better state than before and that it contributed towards nature conservation priorities, as well as involving local stakeholders.

Responses to our webinar, such as yours, illustrate that there are many questions about existing practices for ecological impact assessments and implementation. There are existing documents that answer these questions including legalisation, policy and professional guidance series. We plan to signpost these in our Guidance. Our intention is that our Principles will help all sectors work through the uncertainties that exist when assessing and managing ecological impacts from proposed development.

Stakeholders

Answer to "Who would you put in charge...?" - no brainer! Local Nature Partnerships, where these exist.

That's a very good idea, and we are keen for Local Nature Partnerships to be engaged with Net Gain projects. We hope to include case studies where Local Nature Partnerships have been involved in designing and delivering Net Gain projects in our Practical Guidance, especially to show possibilities for collaborative partnerships between NGOs and business. The role does need business experience however, so it's important that those 'in charge' have the necessary skills.

If we're looking at landscape level biodiversity gain, with all developments/projects contributing, who do you see co-ordinating this locally?

We are working with various sectors to gather views and opinions on local coordination. Some have suggested Local Nature Partnerships, others suggested Natural England or Local Planning Authorities, and some wildlife organisations are keen to take the role.

The answer depends on local context, especially as funding is often a barrier, although collaborative partnerships (especially between local authorities, NGOs and businesses) could be vital. We are planning engagement events on various aspects of Net Gain, including on a locally-based coordination role, which we hope will progress discussions and support implementation.

How can Local Planning Authorities build the mitigation hierarchy and the net gain principle into their Local Plan site allocations process?

We intend that our Guidance will cover the practical implementation of these Net Gain Principles. When developing the Guidance, we hope to engage with Local Planning Authorities to gather their views and suggestions on such issues. At this stage, there are two possible mechanisms:

1. Local planning policy documentation – this could clearly set the Net Gain goals (development that leaves biodiversity in a better state than before and supports nature conservation priorities) and the requirement for development to follow the mitigation hierarchy. Local policies could also be used to assess site suitability during the allocation process. But it's imperative that these policies are clearly worded to avoid any misuse. You might find information on policy wording from the Environment Bank, as they are working in this area.

2) Local plans – these can describe habitat compensation banks or promote alternative mechanism for Net Gain developments to be delivered strategically. The Woking Borough Council Great Crested Newt mitigation trial may produce interesting learning on such strategic approaches. Other councils are testing similar models that could be adapted, e.g. SANGs to compensate impacts on the Thames Basin Heaths.

How much is this reliant on Local Planning Authority implementation?

Our approach to Net Gain emphasises giving local stakeholders the opportunity to be involved. Some might consider that local authorities should be the driving force. But we greatly appreciate the pressure on resources that many local authorities face and, in practice, they might simply not have the resources or time to be involved. We hope that setting out what good practice is and producing our Practical Guidance will make it easier for all sectors, including local authorities, to incorporate Net Gain into projects. Note also that the current surge of interest in Net Gain is driven by industry, so there is a growing momentum to deliver Net Gain without relying on local authorities.

Who would be put in charge of managing mitigation banks, Local Authorities?

As this document illustrates, there are many ideas about who should be 'in charge' of Net Gain initiatives such as mitigation banks. Regarding local authorities, we greatly appreciate the pressures they face and being 'in charge' might simply not be feasible.

It depends on the resources available in each area, not just for local authorities but also other stakeholders such as Local Nature Partnerships. We hope to continue to engage with local authorities

and stakeholders such as Local Nature Partnerships to discuss possibilities and encourage these initiatives to take hold.

Have you engaged the Association of Local Government Ecologists (ALGE)?

Yes – a representative attended our workshop on the first draft of the Principles earlier this year, and we hope to continue to engage with the ALGE.

Inclusivity is the right principle, but how do you ensure that all parties are informed enough to make meaningful contributions to achieving the Principles?

We recommend approaching stakeholders early and being clear that the Net Gain goals for a development project are two-fold: to leave biodiversity in a better state than before; and to support nature conservation priorities. We appreciate the time constraints facing many development projects. Both these factors - early engagement and ensuring that, from the start, everyone understands the goals to achieve - can help ensure that the parties who become involved make meaningful contributions.

We agree with the good practice advocated in the presentation. Can the panel give any ideas on how it can be implemented on smaller schemes i.e. where stakeholders are less motivated to engage effectively?

Firstly please see our response about habitat banking below. If stakeholders are less motivated to engage, speaking with your local authority and wildlife group about a habitat banking type scheme could be an effective way for your projects to achieve Net Gain. Another idea is hosting a workshop or meeting to bring together all stakeholders involved with Net Gain, as this can be effective in motivating them to engage especially if they feel their input is valued. We plan to develop specific guidance for small-scale developments as part of our Guidance, and this will include stakeholder engagement.

Are there any intentions to engage with the BRE and update the BREEAM ecology credits with the good thinking from Net Gain? It could give better visibility to client and project teams.

How do you see BREEAM assessments fitting in with your approach?

Yes, we intend to engage with the BRE, especially on possibilities for aligning BREEAM ecology credits with the Net Gain Principles.

Does the panel think there is a key role for landscape architects in this area of work? Has the Landscape Institute been approached to help advise?

Landscape architects are vital to the process of securing Net Gain outcomes. For example, they could be involved in the design, specifications, planting and land management plans. We are planning to work with the Landscape Institute to explore the role of landscape architects. This topic will be included in the Practical Guidance.

Would stakeholders (Environment Agency or Natural England) be happy to provide free advice on what mitigation/enhancement would be the most effective for an area to achieve net gain?

We think that the Environment Agency and Natural England should be given the opportunity to be involved with Net Gain projects, although we cannot answer for them in terms of what free advice they offer.

Enforcement and legalisation

Offsets should be regulated.

The principles are fine but probably unlikely to be successful without strengthening the law.

How are you going to enforce this?

How do we ensure these principles are actually implemented?

The principles are fine but probably unlikely to be successful without strengthening the law.

Agree with brown and green roofs that can be included as an alternative but we struggle with our policies and having the teeth to implement it. We possibly need legislation to make it happen as well as good will.

Local or national government must state in policy that net gain must be achieved and must be determined by the application of mechanism x e.g. Biodiversity Impact Calculator - Environment Bank or Warwickshire CC Biodiversity Impact Assessment Calculator. It must be objective, mandatory and measurable and not open to interpretation. Once this happens all else will follow. Until it does net gain is just an unenforceable concept - as it is now

The current surge of interest in Net Gain approaches is driven by the UK industry. But as this is unregulated and voluntary, we could miss an opportunity to establish a new era of better development that actually benefits nature. Our initiative seeks to harness industry interest by defining Net Gain and providing a framework for good practice. So anyone seeking to achieve Net Gain has a structure to work from and a way to demonstrate they followed good practice.

We agree that strengthening wildlife legalisation and regulations would give greater reassurance that Net Gain will be realised (and many stated this position in consultation responses to the government's Green Paper).

But deregulation is the trend at the moment, so we are taking action now with a well-designed framework that sets out what Net Gain means. We also know that regulation and enforcement

provide no guarantees, whereas engaging all sectors with strong corporate governance and clear reporting on biodiversity performance can be effective.

On the ground, it is still a fight with a developer to get no net loss, never mind Net Gain.

Sadly we agree that achieving no overall loss of biodiversity from development is challenging. In many ways this reflects our legal system. As mentioned before, the UK's legalisation protects some, but not all wildlife, meaning that development can be 'legally compliant' while causing biodiversity loss. However, things are changing and the current momentum for Net Gain is driven by industry. We aim to build on this by making clear what Net Gain is. So when someone talks about Net Gain, we all know this is about development that leaves biodiversity in a better state than before and action that supports nature conservation priorities.

How would off-setting work alongside legislation? For example, would the requirements for species licencing need to be altered to include off-setting as mitigation or would European Protected Species be 'off-limits' to offsetting?

You ask if European Protected Species (EPS) licences might be altered to including off-setting – that is a matter for Defra and Natural England. But legislation always takes precedence. European Protected Species (EPS) licences often include species-specific requirements, for example the maximum distance between a development and compensatory habitat, and these requirements must be met. Also, legislation sets rules for development on what outcomes for nature are lawful and unlawful. Offsetting is a 'last resort' method that might be used to achieve an outcome but in itself is only a method, i.e. it is not an outcome to achieve. Our efforts should focus on achieving the desired outcome. Also offsetting can only be used after all efforts to avoid losing biodiversity and then minimising impacts on biodiversity have been made.

We're keen to stress that this initiative is about the whole process of Net Gain (not just 'last resort' offsetting). We see this concept as supporting and enhancing EPS licences. For example Net Gain should always support nature conservation priorities. A local authority might have a strategy for great crested newt conservation that includes areas where creating ponds and natural corridors for GCN migration are priorities. A development project that removes a pond and other great crested newt habitat could align its mitigation and compensatory measures as closely as possible with the strategy. But it would still need to meet its licence responsibilities.

How do you see this relating to the Habitat Regulations?

The Habitat Regulations designate and protect 'European sites', protect 'European protected species', and influence planning and other controls for protecting 'European sites'. They take precedence. Development triggering the Regulations must adhere to the rules.

For example, a local planning authority must consult with the relevant nature conservation organisation when considering whether to grant planning permission that affects a Site of Special Scientific Interest. This initiative on Net Gain does not change that.

Please see our above response on European protected species. For sites, Defra made clear in its pilot on biodiversity offsetting that protected areas such as Sites of Special Scientific Interest are excluded from the offset approach and should not feature in the biodiversity metric. This is consistent with the European Commission's approach to No Net Loss, which identifies No Net Loss as a requirement for biodiversity compensation outside that which is covered by EU Directives. Our initiative on Net Gain provides overall goals to aim for and a structure for achieving these. We consider that the Principles complement and add to the Regulations, and plan to describe the practical application of applying Net Gain alongside the Regulations in the Guidance.

Problems arrive with Local Planning Authorities trying to achieve biodiversity net gains on habitats that are not diverse, i.e. planting trees on wetland/saltmarsh to achieve their targets in relation to planning

Our approach to Net Gain emphasises generating the best outcome for nature conservation. While we give flexibility in how this outcome is achieved, we hope that this clear direction ensures the most appropriate decisions are taken.

Any guidance needs to be linked to Planning Policy

The Principles are good, and once refined through industry consultation, could be incorporated into Planning Practice Guidance alongside NPPF

That's a very interesting idea and one we will certainly look into, thank you.

Biodiversity Offsetting

Where offsetting is provided through creation/ enhancement of a different kind of feature, there runs a risk of 'easy wins' getting lots of benefit, at the expense of more difficult features. This may not be a problem at a smaller scale, but there could be as significant cumulative effect across larger areas or nationwide. Any thoughts on how this can be addressed?

A really good point and this is a risk from doing something. Responses to our webinar show that there's great interest in local coordination of Net Gain and in mechanisms that deliver Net Gain strategically for a particular area (see our responses to Habitat Banking and stakeholders). Both of these would reduce this risk. Also our Principles make clear the need to "achieve the best outcomes for nature conservation by...achieving Net Gain locally to the development while contributing towards nature conservation priorities at local, regional and national levels by landscape-level planning". Development following good practice should involve stakeholders to help achieve the local / landscape scale balance.

Ultimately, fully resolving this issue might be something for national and local government (for example the government's 25 year plan for the natural environment) but we certainly plan to address this as far as possible.

A licence to trash

Based on the panel's experience with developers, to what extent will the clause about 'exceptional circumstances' be seen as an open door to develop valuable wildlife habitats?

Would it become too easy for developers and landowners to use the off-setting option as an excuse for trashing prime habitats?

There will be **no** open door to develop on valuable wildlife habitats. Legislation that protects wildlife takes precedence: any development affecting valuable wildlife habitat will have to follow wildlife laws. Also the Codes of Practice for professionals have a key role here. The Principles make clear that good practice on achieving Net Gain involves avoiding losses or damage to biodiversity in the first place. The Principles also make clear that projects damaging valuable and irreplaceable habitat (i.e. habitat that cannot be 'offset' elsewhere, for example ancient woodlands) cannot claim Net Gain. Furthermore, the Principles provide a framework for balancing a development's 'biodiversity account' with biodiversity benefits alone (in other words, biodiversity damage cannot be side stepped).

Biodiversity offsetting has been criticised by some NGOs as "an off-the-shelf way to trash biodiversity". How does the panel respond to these concerns?

We share the concerns that many have about biodiversity offsetting, especially that developers will damage biodiversity on the assumption that it can be offset somewhere else. Addressing these concerns and doing what we can to ensure development benefits nature are our main reasons for this initiative.

Firstly, as we describe above: there will be no open door to develop on valuable wildlife habitats; legislation that protects wildlife takes precedence; and our Principles make clear that good practice on achieving Net Gain involves avoiding losses or damage to biodiversity in the first place.

Secondly, we make clear that Net Gain is about development leaving biodiversity in a better state than before and supporting nature conservation priorities. We also make clear that good practice is an inclusive approach involving a range of stakeholders. We believe that embedding these aspects in Net Gain projects will avoid such 'licence to trash' situations.

Thirdly, this initiative seeks to generate more benefits for nature from development than provided by the 'status quo'. Our legal system protects some, but not all, wildlife, meaning that 'legally compliant' development goes ahead with biodiversity loss. Our Principles address this by providing a framework for ensuring development accounts for all biodiversity losses and makes meaningful contributions to the UK's wildlife sites and ecological networks.

Principle 2 is absolutely essential to the integrity of the mitigation hierarchy. Some types of biodiversity cannot be offset because of factors such as extinction risk, management response, ecological factors etc.

We very much agree, and Ancient Woodland was listed as irreplaceable in Defra's green paper on biodiversity offsetting. However, although agreeing with this principle is the easy part! The difficulty arises when deciding on criteria for what is not replaceable. The approach adopted by the International Finance Corporation in their [Performance Standard 6](#) and [Performance Requirement 6](#) of the European Bank for Reconstruction and Development are good starting points. But they take a global perspective and we, here in the UK, may wish to develop our own criteria that reflect our nature. There are criteria that exist already. For example, in England, the [National Planning Practice Guidance](#) paragraph 118 states that

'planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss;'

Clear guidance, backed up by good evidence, is essential for this Principle to work, and we'll be taking this forward (with signposting to relevant documentation) in our Practical Guidance.

Quality assurance

Don't forget the BBOP Standard - it has criteria and indicators for each of the principles and allows independent verification!

We have drawn on the [BBOP Standard](#) when developing this approach. Our aim was to build on the foundation the Standard provides in order to develop a set of UK-specific good practice principles, based on our industry sectors and the context of our legal system and planning regulations. We plan to review the Standard when holding consultations on a framework for quality assurance, along with existing mechanisms for verification here in the UK. Also many have described the importance of quality assurance this initiative is to work in practice, and we recognise that this requires a robust yet proportionate assurance mechanism.

How will independent inspectors view compulsory purchase of private land required for offsetting - test of public interest versus private rights?

Our approach is that it's good practice to involve stakeholders in Net Gain decision-making, and to achieve Net Gain in partnership with stakeholders, especially locally-based organisations. This approach should reduce the likelihood of any such public interests versus private rights conflicts.

Quality assurance should be via implementation of an appropriately detailed Landscape and Ecological Management Plan secured through planning condition and 'quality assured' through the local planning authority's planning enforcement officers.

This is certainly one option for Quality Assurance and a good one because these plans are produced for some developments already. We hope to have case study examples of such plans in our Practical Guidance. However this requires resources within local authorities to be available and not all development is subject to planning regulations. We plan to host consultations on quality assurance for Net Gain in order to explore all such issues in further detail.

Habitat banking

Does anyone have any examples of mitigation banking funds having been set up? We've been looking into this to cover a county-wide approach but the legalities and financial mechanisms seem very restrictive and complicated. However, we see a significant advantage for banking funds from small developments to deliver biodiversity gain in a more meaningful, functional and sustainable way.

This seems an exciting initiative and we very much agree that banking funds from small developments could deliver much more meaningful Net Gain outcomes, but only if well-designed and we will provide more details on this in our Guidance. If you do progress your county-wide approach, please be in touch!

The Environment Bank and Warwickshire County Council might be able to share experience on such schemes. After the webinar, we received information that Dorset County Council run a scheme where developers pay according to their impacts on biodiversity. The Council uses this as matched funding to support nature conservation projects, which have included heathland restoration. We also received information that the Environment Agency and Natural England operate a 'developer contribution fund' for the River Mease Special Conservation Area, which is an example of how such a scheme for biodiversity could work. Hopefully these contacts can provide advice.

Do the presenters feel that Net Gain always needs to be delivered by developers, or do they recognise the additional benefits that could accrue if developers paid a contribution to a strategic fund which could attract matched funding towards net gain across a wider area? This could also streamline the process of stakeholder engagement?

Yes absolutely – this approach to Net Gain is about generating the best outcomes for nature and supporting local, regional and national nature conservation priorities. We give a structured framework to achieve these goals, but with flexibility so that people can make decisions based on what works best for their area. A well-designed strategic fund is a potential mechanism to achieve these outcomes, especially for smaller developments. It is important to note that Net Gain is about achieving additional outcomes for nature that would not have otherwise occurred. Mechanisms for strategic funds must incorporate this Additionality Principle. If they do this, they can be an effective and pragmatic way to achieve Net Gain.

There is a danger of banking money collectively that developers will walk away from their responsibilities at a local level.

A good point that we agree with, and we plan to address this issue in the Guidance. Unfortunately however, to some extent this happens already. We want to improve the current situation by making clear what good practice is. Ultimately this issue might be for statutory bodies to resolve, but we hope that our Net Gain initiative will go some way towards addressing it.

How much is this reliant on land being available for off-site compensation?

Compensating for biodiversity losses off-site could improve existing habitats for wildlife or create new habitat. As mentioned elsewhere, we come back to the idea of establishing Net Gain goals and providing a flexible framework for achieving these with stakeholder input - so that people can decide together what's best for local nature. For example, Net Gain might involve enhancing degraded habitat if that's the local priority. Elsewhere, it might involve creating new wildlife corridors. People working in nature conservation know what's best for their patch. So while land availability is important, Net Gain does not rely solely on land availability but rather ensuring stakeholder input so that development supports priorities for nature conservation that are most appropriate given its impact on biodiversity.

In terms of mitigation banking, has consideration been given to how the use of mitigation banking as a planning tool would work with the new Community Infrastructure Levy regulations and how mitigation payments may work in planning terms.

An interesting question although not specifically for this initiative to-date because our focus was to develop a set of good practice Principles on Net Gain. Responses to our webinar show that there is great interest in mitigation banking. We plan to explore this further for our forthcoming Guidance and hope to illustrate how mitigation payments could work within the planning system with case studies. In the meantime the Environment Bank is working in this area so, if you are interested in discussing this further, perhaps contact them.

Achieving net gains in biodiversity

Is there a case for native species over non-native when trying to improve biodiversity at a site?

Yes, very much so. It depends on the local and landscape-level context of the site, but native species are a key consideration when seeking to generate "the best outcomes for nature", as stipulated in the Principles.

What about rewilding - this is also an important strategy - are there any synergies?

Quite possibly! Our approach is for development to support nature conservation priorities. If stakeholders consider re-wilding is the priority and is appropriate to achieve Net Gain given the impacts on biodiversity from development, then there are potential synergies.

Many of the local biodiversity strategies are becoming a bit tired and out of date. What can be done at the local level to refresh these, align with ecosystem thinking and work towards a common approach?

Our approach to Net Gain is for developers to engage and collaborate with various stakeholders in order to support their priorities for nature conservation. We appreciate that, on paper, local strategies for biodiversity might be out-dated. However many wildlife groups and organisations such as Local Nature Partnerships have current plans for improving biodiversity that build on local strategies. Also some have (or are starting to) incorporate ecosystem services. Engaging these individuals is a practical and very effective way for Net Gain initiatives to support biodiversity measures that locally are extremely valuable. In terms of your question on what can be done, Defra is currently working on a new 25-year plan for the environment – this is an opportunity to align the various initiatives on nature conservation and work towards a common approach. Defra should announce consultations on the plan shortly.

The webinar presentation included that we are working in the dark regarding biodiversity net gain. Can we please specify that this refers to the UK situation? We are at least 6 years behind international best practice and should not need to reinvent the wheel.

The webinar presentation described the current surge of interest in biodiversity net gain in the UK, which is driven by industry. However these voluntary commitments are unregulated – there are no standards or guidelines marking good practice for the UK industry. Our initiative seeks to harness industry interest by defining Net Gain and providing a framework for good practice. So anyone seeking to achieve Net Gain has a structure to work from and a way to demonstrate they followed good practice. We have developed it using international standards as well as experience and learning from both the international community and here in the UK.

Additionality

It is essential that projects to deliver net gain are additional to those which would or should be delivered anyway. This is particularly pertinent given local planning authorities' funding difficulties, and resulting difficulties delivering existing priorities (e.g. management of Local Wildlife Sites). How do the panel feel that this could be adequately addressed?

Currently there is no clear definition on what is 'additional' in the UK, nor on what is not. There are examples of the UK government's mandatory requirements for nature conservation being excluded - because these should happen anyway.

But there are many ‘grey’ areas that need addressing for this Principle to work in practice. For example, local authorities do not necessarily have a mandate to maintain locally designated wildlife sites. So offering to maintain or enhance these might be seen as an additional outcome for nature. But many might argue that existing authorities *should* be maintaining and enhancing these sites, so this is not additional. We recognise that setting clear boundaries on ‘additionality’ is urgently needed although this needs to be balanced with the specifics of a site and the development project. We plan to gather views and opinions during our forthcoming engagement events so please watch out for announcements if you are interested in joining us. We also plan to draw on experience from projects that have explored and tested the ‘additionality’ principle, as we aim to describe ‘additionality’ in detail in the Guidance and provide case studies to illustrate this Principle in practice.

Urban situations

High density developments can lead to a significant erosion of biodiversity in urban areas, which is ultimately bad for the new residents.

We need to take into consideration other factors in this decision such as people’s access to green space

We agree that access to nature for residents and people in general is vital. We hope that this initiative will generate better outcomes for both nature and people. Our Practical Guidance will describe social aspects of Net Gain and offer advice by pointing to established biodiversity designs for urban projects. Also our Principle on engaging with stakeholders, especially local groups, will help ensure the ‘people’ factor of biodiversity is considered.

Can we consider local impact within a city environment and loss of garden and green areas with back-land development? Collectively this could make a real difference to biodiversity and flooding issues. ‘Green to grey’ studies have helped but there is a lot of pressure on our inner-city and suburbs that is having a cumulative effect

We completely agree that biodiversity losses within urban areas can mount up significantly and cause great problems. We hope that our approach to Net Gain goes some way towards addressing the issue, especially by creating a positive cumulative effect and aligning development more closely with strategies and action plans for biodiversity.

Small developments

How can you do Net Gain for biodiversity on a site which is subject to regular vandalism from locals on a small site?

There are case studies where regularly-vandalised sites have become better-respected when turned into wildlife areas for the community. These projects linked policies on social change and inclusion with work to enhance biodiversity, and engaged with various stakeholders to address underlying issues that were causing the vandalism. For example, one site established an allotment that engendered a sense of community ownership (and hence community protection), as well as providing opportunities for wildlife from various planting arrangements. Such situations are challenging and can need investment in relationship-building with local groups. But addressing vandalism can be required for site management anyway, so in these instances Net Gain provides a mechanism to do both. Thank you for raising this issue, as we will look for case studies on this for our Practical Guidance.

How do you suggest we can approach Net Biodiversity Gain in small scale developments where we don't have specific expertise in house (and very tight budget constraints)?

We make clear the outcomes of Net Gain but give flexibility in how these are achieved because the ecological context of each site will vary. We hope that giving flexibility encourages effective, pragmatic solutions, especially for small-scale developments. Net Gain does not have to be complicated. Focusing on one ecological feature can generate many local benefits. A starting point could be to check your local Biodiversity Action Plan and see if there are any activities listed there that you can support.

We also think well-designed habitat banking schemes (or similar) could enable small-scale developments to contribute towards Net Gain within their area (see the next section). These schemes are where developments pay a Net Gain fee, proportional to the development's impact on biodiversity, into a designated fund. An overseeing organisation then invests the funds into local nature conservation priorities. Some Local Authorities and independent organisations have established these schemes. If you are interested in finding out more, perhaps contact them. If none are within your area, you could speak with your Local Authority and wildlife organisation about such a scheme, or just about the best practical way to achieve Net Gain given the small-scale of your projects. We plan to include details on achieving Net Gain for small projects, along with links to guidance, in our Practical Guidance.

Transparency

In relation to the principle of transparency and sharing learning about design, implementation and monitoring Net Gain, do the panel have any particular mechanisms in mind for facilitating this shared learning?

We left this broad so that it fits with a wide range of large and small-scale developments. Sharing learning can involve talking to all involved with a project including client and sub-contractors; sending monitoring data to the local records centre; publishing a case study; or presenting a webinar or a conference talk. There are many forums for sharing ‘lessons learnt’ and please make full use of those run by IEMA, CIEEM and CIRIA. Webinars, such as the IEMA webinar series, are a great way to share learning. There are also newsletters, conferences and blogs hosted by each organisation. There are many options depending on the individual involved and the project. One thing to note is that stakeholder collaboration, which is central to the Principles, requires and indeed leads to transparency.

Economic influences

A question about the very last Principle, which referred to society, environment and economy: would it be better to use 'natural capital' in the wording rather than 'economy', the measure of which could be a bit more subjective?

We considered using ‘natural capital’. However, this is a slowly emerging approach that is not yet main-stream within industry, especially for small developments. Our aim is for the Principles to be applicable to a wide-ranging industry. So we refer to these key elements of society, environment and economy in the wording of the Principles so that the Principles to be accessible to (and used by) the widest possible audience. In the Guidance we plan to describe how to implement this Principle in practice, with one way of doing that could be the natural capital approach.

How resilient is the Net Gain model in the wider face of macroeconomic influence? For example, all the infrastructure needed for a mining operation, which market conditions could cause closure of some years later?

We agree - resilience is a critical consideration for Net Gain projects and their future protection. Involving stakeholders when planning how to leave a Net Gain legacy is a key aspect of our approach. It’s especially important for local organisations to be partners in the actual implementation and delivery of Net Gain on the ground. We hope this makes Net Gain more resilient to wider economic influence. For industry, such stakeholder engagement makes good business sense, and we plan to describe this in the Practical Guidance.

There are ways to enhance resilience (Section 106 agreements for example). We understand that Defra was investigating enhancements and/or alternatives to Section 106 agreements in their Green Paper. There is always a risk when it comes to resilience over time, but we have developed this approach carefully to be as robust and resilient as possible.

A number of lending institutions (eg EIB, IFC, EBRD) have developed standards that are intended to deliver good international practice. They are targeted at large scale international infrastructure projects, however they define the requirements that they expect to be met by proponents of projects they fund. These include requirements for biodiversity assessment and offsetting.

Our Principles align with these standards while being tailored to the UK industry. They establish the joint goals of firstly development that leaves biodiversity in a better state than before and, secondly, development that supports nature conservation priorities. They also provide a framework for how this is achieved, but give flexibility because the local context of each development will vary. Biodiversity requirements of lending institutions tend to be more prescriptive than our Principles (e.g. specifying that offsets must be ecologically equivalent). We do not envisage any conflicts, as projects can be designed to comply with lending institutions' requirements while achieving the goals of this Net Gain initiative. We plan to describe this in the forthcoming Guidance.

How can we guarantee we develop Net Gain when future infrastructure development is likely to continue to place a greater risk to biodiversity?

We developed the Principles carefully to make them as resilient as possible, especially given the planned government investment in infrastructure over the next five years.

Firstly the Principles establish key aspects of leaving Net Gain legacies; these include mitigating risks from other land uses and working with local stakeholders for practical solutions that ensure Net Gain lasts in perpetuity.

Secondly, the momentum for Net Gain initiatives in the UK is being driven by industry. Several major developers, especially those in the transport and housing sector, have committed to achieving 'Biodiversity Net Gain/Positive' and many more are following. So while infrastructure development continues at a rapid pace, these voluntary commitments are a 'force for good' that we hope to harness by making clear what good practice is.

Thirdly, we plan that the guidance will describe the business case for our Net Gain approach. So while there are no guarantees, making a strong business case and building on industry-driven interest can go some way.

The business case

How can we demonstrate this will not cost projects more than merely compliance as current?

The current interest in Net Gain is driven by industry and there are an increasing number of case studies showing that this approach to Net Gain makes good business sense. We will include some of these in our Practical Guidance, as many illustrate benefits such as improved risk management, better stakeholder relations and innovative sustainability approaches. Also, any projects seeking Net Gain should incorporate 'value engineering' for the best outcomes for nature to be achieved cost-efficiently. In this regard, the Natural Capital approach might be useful to show the true costs and benefits of a development and Net Gain.

We spend millions of pounds of business and industry's money on biodiversity gain. Is this money well spent? How can we link this into your approach?

You make a really good point because, unfortunately, there are cases when industry money for 'enhancing biodiversity' went on short-term or meaningless measures. We hope to address this; central to Net Gain is strengthening and improving links between biodiversity measures that developers implement and nature conservation work undertaken by local organisations.

Nature conservation in the UK is full of inspiring and innovative projects ranging from individual sites to landscape-level strategies. Our approach is for industry to direct its efforts and finances for Net Gain into supporting this work. In other words, development fits with and complements nature conservation in its area. Achieving this requires collaboration between industry and those involved with nature conservation. Our Guidance will contain practical advice on this, as well as the business case for doing so.

In your experience what is driving business interest in net positive the most? Is it an interest in the biodiversity per se or is it because net positive approaches outlined provide an opportunity to better engage with local communities and deliver wider ecosystem service type benefits as well as biodiversity?

Business interest in net positive / net gain seems to emerge from a mixture of reasons. These targets are measurable, which enables businesses to measure and report on progress towards achieving them just like they do for other environmental issues in a sustainability action plan. The net positive / net gain approaches can help manage risk, as a business can more easily see where the greatest losses of biodiversity are. Also as you mention, they provide opportunities for engaging a variety of stakeholders and generating wider benefits for people. But it might simply be that the concept allows for something positive and achievable.

Acknowledgements

Principal Co-ordinating Author	
Julia Baker	Balfour Beatty

Project Team and Contributors	
Martina Girvan	Arcadis
Sally Hayns	CIEEM
Owen Jenkins	CIRIA
Michael Small (Project Manager)	CIRIA
Nick Blyth	IEMA
Bob Edmonds	SLR Consulting

INSIDE BACK COVER

Supporting guidance

The principles are broad by necessity so that they apply to a wide-ranging industry. This means that their proper interpretation is critical. CIRIA, CIEEM and IEMA are developing guidance that will contain practice advice on implementing the Net Gain principles and definitions of key terms. This guidance will be available in 2017, and a steering group will be overseeing its production and consultation with a variety of stakeholders.

Part of that stakeholder consultation is discussing a credible, proportionate way to audit implementation of Biodiversity Net Gain. While this is in progress, developments claiming to achieve Biodiversity Net Gain must provide evidence that clearly demonstrates they have implemented and adhered to the good practice principles.

How you can get involved

If you would like to be kept informed of progress with our Biodiversity Net Gain practical guidance, please visit www/ciria.org/netgain for further information.

If you are able to sponsor or otherwise contribute towards the cost of developing the Biodiversity Net Gain practical guidance, please contact owen.jenkins@ciria.org

BACK COVER

Biodiversity Net Gain Good Practice Principles for Development: Consultation Responses

[CIRIA](#) is the construction industry research and information association. It is an independent, not-for profit, member-based research organisation that exists to champion performance improvement in construction. Since 1960, CIRIA has delivered support and guidance to the construction, built environment and infrastructure sectors. CIRIA works with members from all parts of the supply chain to co-ordinate collaborative projects, industry networks and events. Its high quality guidance is delivered to industry through publications, training and other performance improvement activities. www.ciria.org

The [Chartered Institute of Ecology and Environmental Management](#) (CIEEM) is the leading professional membership body representing and supporting ecologists and natural environment managers in the UK, Ireland and abroad. Our Vision is of a society which values the natural environment and recognises the contribution of professional ecologists and environmental managers to its conservation. We have members drawn from across the employment sectors including local authorities, government agencies, NGOs, environmental consultancy, academia and industry. The diversity of our membership is our greatest strength, enabling us to take an integrated and holistic approach to furthering the management and enhancement of biodiversity and the ecological processes essential to a fully functional biosphere. www.cieem.net

The [Institute of Environmental Management Association](#) (IEMA) is a worldwide alliance of environment and sustainability professionals. We believe there's a practical way to a bright future for everyone, and that our profession has a critical role to play. Ours is an independent network of more than 15,000 people in over 100 countries, working together to make our businesses and organisations future-proof. Belonging gives us each the knowledge, connections, recognition, support and opportunities we need to lead collective change, with IEMA's global sustainability standards as our benchmark. By mobilising our expertise we will continue to challenge norms, influence governments, drive new kinds of enterprise, inspire communities and show how to achieve measurable change on a global scale. This is how we will realise our bold vision: transforming the world to sustainability. www.iema.net