

Biodiversity net gain designs	Possible issues
A project results in the unavoidable loss of a woodland scrub mosaic. It achieves BNG by enhancing woodland scrub within a nearby wildlife reserve. While this boosts the reserve, the enhancement option achieves BNG faster than creating new habitat. This shorter timeframe means less area of habitat is required, so less investment is needed.	BNGs designs should be justified by a sound ecological rationale. This is crucial to demonstrate that the good practice principles were followed. There are instances where enhancing existing habitat, rather than creating new habitat, is appropriate (eg when there is greater reassurance that BNG will be achieved). However, the ecological rationale underpinning the BNG design should be clear.
A project achieves BNG by investing in a nature reserve that is well used by local communities and the wider public.	Although the project's BNG offers social benefits, care must be taken to ensure that visitors do not compromise the biodiversity features, and that no other external factors, whether related to the development or not, could affect the BNG activities in the reserve.

11.4.5 How can a biodiversity net gain design optimise wider benefits?

The good practice principles state “*prioritise biodiversity net gain and, where possible, optimise the wider environmental benefits for a sustainable society and economy.*” This aligns with CIEEM (2018), which describes how biodiversity enhancements “*could be linked to the delivery of wider socio-economic benefits*”, giving the example of wetland restoration that supports flood risk management.

Key considerations when designing BNG and seeking to optimise the wider benefits include the following:

- **Prioritising BNG.** The UK Government (2018) plan for the environment set the principle that “*new development should result in net environmental gain.*” For this specific context of BNG, the good practice principle makes clear that the priority is BNG. Clarifying this priority from the start is important to manage trade-offs and maximise the synergies between BNG and wider socio-economic benefits. **Technical note T11** describes links between BNG, ecosystem services and natural capital.

- **Collaboration between specialists.** CIEEM (2018) states that “*EcIA is a process that is most effective if all contributing ecologists and other specialists work in collaboration.*” This is equally vital when seeking to optimise the wider benefits from BNG.

In addition, there are several technical references such as:

- those on the susdrain website
- advice for local planners that provides useful information, eg TCPA and TWT (2012)
- Porter *et al* (2014)

- **Ensuring that people are no worse off, and preferably better off.** International guidelines, such as those produced by BBOP (2012) and Bull *et al* (2018), advocate that biodiversity offsets should achieve NNL and preferably a net gain of biodiversity without making local people worse off, and preferably ensuring that they are better off.

BNG designs should demonstrate, by application of the mitigation hierarchy, that the ‘no worse off, preferably better off’ principle has been achieved with regard to people’s use and values for biodiversity. This should build on, and be proportionate to, social considerations of a project’s EcIA (see **Chapter 10 and Box 11.3**). It is especially important where biodiversity affected by a project is valued by communities, ensuring that people experiencing negative effects from a project’s impact on biodiversity (after applying the mitigation hierarchy) are the same as those who gain commensurable benefits. For example, locating BNG activities far from the project may create unacceptable ‘winners and losers’ where the region and people benefitting from the activities are different from those experiencing the losses.

Box 11.3 Social considerations for ‘no net loss’ of biodiversity

Despite international good practice guidelines calling for biodiversity no net loss (NNL) to ensure that people are no worse off, and preferably better off, comprehensive guidance on including social considerations within the design and implementation of biodiversity NNL is limited at both the policy and project level. To address this gap, new international principles have been published on incorporating social considerations into NNL objectives of biodiversity (Bull *et al*, 2018).

- **Are the BNGs more than those that would have happened anyway?** The good practice principles state BNG should “*achieve nature conservation outcomes that demonstrably exceed existing obligations (ie do not deliver something that would occur anyway)*”. This is termed the ‘additionality’ principle, which has been defined in a UK context as: “*The need for a compensation measure to provide a new contribution to conservation additional to any existing values, ie the conservation outcomes it delivers would not have occurred without it.*” (Natural England, 2016).

In practice, this means that BNG cannot be claimed for meeting existing legal requirements or commitments.

For example, the UK Government and landowners are responsible for keeping SSSIs in ‘favourable condition’, however doing this does not qualify for BNG. Also, landowners who are delivering an agri-environment scheme such as Countryside Stewardship are responsible for managing land to benefit biodiversity. Any gains resulting from this scheme do not count towards the delivery of BNG.

Countryside Stewardship: <https://www.gov.uk/government/collections/countryside-stewardship-get-paid-for-environmental-land-management>

Addressing effects on statutory designated sites should follow legislative and policy requirements and are excluded from BNG designs. When not compensating for such effects, BNG designs can involve statutory designated sites when the gains are clearly additional to the reasons for designation (and any associated management requirements). In these situations, advice and verification from the statutory conservation advisor and LPA should be obtained.

Where several activities are underway on the same site, how the BNGs are additional to other activities should be demonstrated. For example, when using the same site to compensate for residual losses of biodiversity and achieve net gains in biodiversity, the compensation and then the actual net gains should be clearly distinguished and quantified.

One way to demonstrate additionality is to describe and measure the predicted outcomes from two scenarios:

- with BNG activities and the predicted gains for a specified period
- without BNG, predicting the status of biodiversity over the same time period

The ‘without BNG’ scenario should be established using information that can be independently verified. This is often best done by working with stakeholders, ensuring that stakeholders agree that the project generates biodiversity outcomes that would not have otherwise occurred.

Advice for local planning authorities

If several biodiversity projects are taking place within one area, good practice requires the BNG design to be clearly additional to the other projects, and to maximise complementary interactions with other projects. This helps avoid a piecemeal approach. However, care should be taken to avoid situations where landowners or managers choose between BNG projects and lose a benefit that would have otherwise been provided.

11.5 AVOID OR MINIMISE RISKS

11.5.1 Avoid or minimise time-lags

A BNG design should, as far as possible, reduce or eliminate time-lags between losses of biodiversity and the gains being attained. There should especially be no net reduction in resources for endangered species during a project life cycle, even if there is a gain at some point in the future.

To avoid or minimise time-lags, BNG designs should be implemented as early as possible, ideally before habitat clearance starts, even if it is only some of the activities (see [Case study 11.1](#)). Reducing time-lags will reduce contingency added to the amount of biodiversity needed to achieve net gain (see [Section 11.5](#)).

The measurement of BNG should account for any time-lags, for example the ‘time to target condition’ multiplier for Defra’s biodiversity metric. Accounting for time-lags should apply to areas where habitat is cleared temporarily and then reinstated (see also [Section 11.6.3](#)).