### Practical Considerations for Achieving Net Gain at the Site Level

There is an increasing focus on achieving Biodiversity Net Gain (BNG) as a consequence of development, illustrated by the Chancellor’s announcement in his Spring Statement. Whilst this promises to present a wealth of opportunities for wildlife and nature, it also comes with a number of challenges. Achieving this is particularly challenging for smaller scale developments for which more convincing of BNG’s merits and deliverability would be required. The commitment also puts more pressure on the ecology specialists to liaise with wider disciplines to deliver efficient spaces that complement the built environment and comply with a range of policies locally and nationally. This on the other hand puts pressure on the EIA stages, and is likely to represent some delays in EIA overall. Additionally, the provision of open space and sustainable drainage to achieve BNG results in reduction of quantum of development, which would therefore also have a direct effect on the EIA assessment. This challenge is specifically related to three factors:

1. **Sustainable Drainage**

   Sustainable Drainage Systems (SuDS) is a method of managing surface water run-off from development sites to minimise flood risk and water pollution. The potential biodiversity gain from SuDS is derived from additional provision of clean water, making development attractive to residents, making the development resilient to climate change and provides spaces for wildlife.

   In terms of design or additional mitigation as part of the EIA stage, SuDS are considered to be efficient and effective as these require large areas of open space and green space and therefore provide a sufficient area for relevant habitat. With BNG being calculated as biodiversity unit per hectare, wetland habitats which can be accommodated within SuDS typically score well for distinctiveness. Additionally, SuDS often contribute to connectivity within the development and its surroundings, for example, where larger features such as ponds and basins are located to the edge of a site and enable outfall to local watercourses which connects the site to its surroundings; or, linear features such as swales within green infrastructure which provides connectivity within and throughout the development.

   Nonetheless, SuDS also have multiple constraints which relate directly to BNG. These are:

   - SuDS have a reduced value for biodiversity due to the specific design to deal with flood risk and water quality;
   - Because SUDs require large areas of open space, these need to be incorporated within site’s masterplan at an early stage of the EIA process; and,
   - Lower water quality than that required for biodiversity gain is more likely to form a part of the SuDS scheme, unless there are sufficient intervening water treatment stages developed within the scheme.
2. Public Open Space
The provision of open space as part of the development is a formal requirement which complies with local policies and varies between local planning authorities. To achieve BNG through the provision of open space, the development can incorporate either the creation of community orchards or replacing amenity road verges with species-rich grassland. Open space also provides other qualitative benefits such as climate change resilience, mental health and wellbeing and promotion of physical activity. This would therefore be identified as a beneficial effect for both ecological and socio-economic aspects of the EIA assessment.

The difficulty of managing higher distinctiveness habitats should also be considered when aiming to achieve an efficient and economically sustainable BNG. Complex habitats (such as heathland) may be too costly or too complicated to reliably achieve the target conditions and are therefore also likely to delay the programme of the project and subsequently the EIA process. Nonetheless, some high distinctiveness habitats may have lower management costs and therefore have to be considered when outlining additional mitigation proposed as part of the EIA. For example, a native species-rich hedgerow cut on a 3-year rotation will be cheaper to manage than a formal hedge requiring several cuts a year.

3. Species Mitigation
As part of the planning consideration and European Protected Species Licensing, species such as Great Crested Newts or Hazel Dormice are protected under the favourable conservation status. Thus, in addition to direct protection of these species during the site development, the conservation of these is also considered to achieve no net loss of supporting habitat, achieved either by providing new areas or enhancing sub-optimal habitat.

This approach therefore creates a new, high-value habitat, whilst improving the condition of the existing ones.

Nonetheless, as with other points mentioned above there is a risk for conflict between the species mitigation and net gain, specifically where a species requires specialised habitats of low intrinsic biodiversity value which represent no or low BNG. Careful consideration of species’ habitat requirements and local biodiversity objectives is therefore required at early stages of the EIA.

With the above in mind and with BNG becoming a formal requirement, many developments proposed from now on will most likely be required to create more wildlife habitat. As mentioned above, this can be achieved through the provision of SuDS, open space or mitigation of existing species.

Nonetheless, it is important to remember that the best outcome for protected species may not always achieve the highest net gain. It is therefore vital that BNG is considered at the earliest stages of the EIA to avoid significant delays in submission of the planning application and achieve best all-round outcome.

WYG, February 2020.