

GCP Infrastructure Programme Biodiversity Net Gain Approach

Report to: Greater Cambridge Partnership Executive Board

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1. Background

- 1.1 Biodiversity is the variety of all living things – animals, plants, fungi, and microorganisms – that make up life on Earth. Biodiversity also encompasses the genetic variety within species, and the variety of ecosystems created by species.
- 1.2 The UK is one of the world's most nature-depleted countries, with on average only about half its biodiversity left intact. This places the UK in the bottom 10 percent globally for surviving nature and wildlife.¹ Cambridgeshire is particularly low for biodiversity with just eight percent of the land in the county managed for wildlife – this is half the national average of 16 percent – creating a clear local need for improvement.²
- 1.3 The Environment Act 2021 (EA2021) introduced Biodiversity Net Gain (BNG) as a way of creating and improving natural habitats. BNG makes sure development has a measurably positive impact ('net gain') on biodiversity, compared to what was there before development. In England developments requiring planning permission must deliver a minimum of 10 percent BNG.
- 1.4 In December 2022, the GCP Executive Board agreed that, in addition to the statutory 10 percent targets for BNG for each project required by the EA2021, the GCP will aim to pursue 20 percent BNG across the programme as a whole.
- 1.5 In addition, the GCP will apply this target to permitted developments, such as those within the highway boundary, and projects brought forward under Transport and Works Act Orders (TWAO), neither of which require BNG under current regulations.

¹ BBC (2021), *Biodiversity: UK is one of the world's most nature-depleted countries*, available at: www.bbc.co.uk/newsround/58863097

² Cambridgeshire County Council (2025), *Draft Local Nature Recovery Strategy, Part 2*, p.6 available at: <https://yourvoice.cambridgeshire.gov.uk/lhrs/consultation/>

- 1.6 While BNG regulations did not come into force until spring 2024, all projects which received final approval after the EA2021 achieved Royal Assent in November 2021 are now considered in scope for the programme wide target.
- 1.7 This paper – developed with input from ecologists from Cambridgeshire County Council, Greater Cambridge Shared Planning Service, and Cambridge City Council, together with GCP projects teams and independent consultant ecologists – builds on the initial approach set out in December 2022 to provide a clear pathway to delivering the 20 percent target.

2 Recommendations

- 2.1 The Executive Board is recommended to:
- a) Agree the proposed delivery phases and approve the overall BNG approach;
 - b) Approve the delivery of offsite habitat, as appropriate in line with legal, value for money and procurement rules, for GCP projects which require offsite area and hedgerow habitat. As set out in Section 4.7-4.8 this will include investigating Lower Valley Farm as an option for offsite habitat;
 - c) Approve the next stage of work to deliver linear aquatic habitat on awarded watercourses managed by Cambridge City Council, beginning with the Sheep's Green scheme; and
 - d) Note the potential opportunities related to surplus habitat and approve the next stage of work to assess the full implications, cost, and benefits, of any eventual sale.

3 Joint Assembly Feedback

- 3.1 The Joint Assembly supported the overall approach to Biodiversity Net Gain (BDG) but had a lengthy discussion about how sites would be assessed and prioritised.
- 3.2 While it was noted that an external organisation had advised that onsite BNG was not always the best practice, with some cases of poorer ecological outcomes than an off-site option. It was noted the Biodiversity Gain Hierarchy privileges enhancing and creating on-site habitats over securing off-site biodiversity units with priority for a local habitat. It was acknowledged buying such units would need to follow procurement and legal rules. It was agreed that the Executive Board should be asked to reconsider the proposed recommendations to accommodate this and clarify the circumstances where the priority for onsite delivery would not be chosen.
- 3.3 The Assembly asked for the wording of recommendation b) be revised so as not to preclude the wider use of alternative local habitat banks beyond Lower Valley Farm. Officers agreed to provide revised wording for the Board's consideration, which would comply with all relevant legal and procurement requirements.
- 3.4 Members confirmed the need for a detailed picture of where gains were made and where units had been applied. Officers confirmed that detailed project-by-project

data was being gathered, and work to aggregate that into a programme wide picture was ongoing. It was suggested that there could be unintended consequences from the sale of excess habitat, and it was acknowledged that this should be assessed in the next stage of work

- 3.5 A member asked if the proposals were shared with the GCP Landscape Heritage and Environment forum. Officers confirmed the proposed recommendations had been shared and discussed.
- 3.6 In response to questions from Members, it was confirmed that a 30-year maintenance period is priced into cost of habitat units from accredited habitat banks.

4 Issues for Discussion

- 4.1 BNG does not replace existing protections for habitats, such as SSSI, or for individual species, such as those set out under the Wildlife and Countryside Act 1981. Furthermore, the loss of irreplaceable habitat cannot be offset though BNG units or credits, special arrangements must be sought with Natural England.
- 4.2 To ensure standard measurement, the GCP is committed to closely following the statutory regime and applying the Natural England Statutory BNG Metric to all projects. Within the BNG Metric, there are three main habitat unit types – area habitat, linear terrestrial habitat (hedgerow/lines of trees), linear watercourse habitat (rivers, streams, wet ditches etc.). These are not interchangeable/exchangeable, and the required percentage gain must be achieved in each of them. Detailed guidance on how BNG is calculated is available from Natural England.³
- 4.3 In line with the statutory regime, the GCP will also apply the Biodiversity Gain Hierarchy – as set out in Articles 37A and 37D of the Town and Country Planning (Development Management Procedure) (England) Order 2015 – to all projects. Specifically, the hierarchy requires adherence to the following sequence:
 - 1. Avoid Adverse Effects – particularly for medium, high, or very high distinctiveness habitat types.
 - 2. Mitigate Unavoidable Effects – if adverse impacts cannot be avoided, they will be minimised and mitigated as much as possible.
 - 3. Enhance On-Site Habitats.
 - 4. Create New On-Site Habitats.
 - 5. Secure Off-Site Biodiversity Units – additional habitat will be secured off-site either from an established habitat bank or as part of bespoke habitat scheme. The priority will be local habitat.
 - 6. Purchase Biodiversity Credits – to be used as a measure of last resort for statutory BNG requirements.

³ Natural England (2025), [Statutory biodiversity metric: user guide](https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides), available at: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>

- 4.4 In line with the Biodiversity Gain Hierarchy, the overwhelming majority of habitat retention, mitigation, enhancement, and creation is expected to be achieved within the boundaries of GCP schemes.
- 4.5 While never the first resort, well planned offsite measures can have many benefits. Larger sites are typically more ecologically stable and allow for management practices – such as hay making or conservation grazing – which in most cases are not possible within the boundaries of a transport scheme. This in turn allows for cost-effective delivery of habitat at scale and in line with local nature priorities.
- 4.6 In line with the Biodiversity Gain Hierarchy, GCP projects will prioritise opportunities to deliver BNG onsite. To ensure a good ecological outcome, as prescribed by Natural England, all habitat loss will be compensated with habitat of an equal or higher habitat distinctiveness. Where viable habitat required to meet BNG commitments cannot be secured onsite, ecologically appropriate local habitat banks or bespoke local schemes within the Greater Cambridge area will be the next choice.
- 4.7 Anticipated demand for BNG by the GCP infrastructure programme was a significant factor in the development of Lower Valley Farm as a biodiversity offset site by Cambridgeshire County Council. The site, located in Fulbourn, covers c. 140 ha adjacent to the Roman Road SSSI, and forms part of the Cambridge Nature Network plans developed by Cambridge Past, Present & Future and the Wildlife Trust Bedfordshire, Cambridgeshire, and Northamptonshire.
- 4.8 For area and hedgerow habitat, the Cambridgeshire County Council Lower Valley Farm biodiversity scheme, Fulbourn, is an option for GCP projects to utilise where ecologically appropriate, in line with legal, value for money and procurement rules.
- 4.9 Securing options for habitat at Lower Valley Farm, and/or other local habitat banks as ecologically appropriate, will address a number of risks and issues:
- Ensure value for money and a lower unit price by co-ordination of the purchase at the programme level instead of project-by-project;
 - Without this upfront investment in natural capital, the overall 20 percent BNG targets could be affected by changes to the scope of major GCP projects which at present do not have final approval;
 - The Biodiversity Metric rewards the early delivery of habitat, while imposing a penalty on late delivery. As the habitat at sites such as Lower Valley Farm is already established fewer units will be required to achieve the same BNG score than if GCP were to rely on future habitat units; and
 - Deliver against local nature recovery priorities and support the Cambridge Nature Network.
- 4.10 The unit price at Lower Valley Farm is commercially sensitive, but the total cost for 50 units, a quantity likely to meet the immediate needs of the programme, would likely be in the range of £1.25m – £1.75m. The cost would be met from a combination of individual project budgets – in cases where those projects require offsite habitat to reach their minimum commitment of 10 percent BNG – with additional funding from the GCP programme budget to ensure GCP remains on track to meet the programme

wide 20 percent BNG target. A value for money assessment exploring Lower Valley Farm and other local habitat banks would be completed before purchasing the units.



Figure 1 Lower Valley Farm site plan

- 4.11 As the programme has progressed, surveys have been carried out to establish BNG baseline scores and post-development BNG scores on a project-by-project basis. This work is ongoing and final BNG scores are only established upon project completion. However, the overall results to date suggest the GCP programme is on track to meet or exceed 20 percent BNG for area habitat in the long term. The programme is currently projected to exceed the 20 percent BNG target for hedgerow/lines of trees.
- 4.12 Meeting 20 percent BNG for linear aquatic habitat will require additional measures. The market for linear aquatic habitat within Cambridgeshire is extremely constrained. Purchasing linear aquatic habitat from outside the local catchment area would incur a x0.5 spatial risk multiplier penalty, meaning twice as many habitat units would be required to achieve the same BNG score. Statutory credit for Linear Aquatic Habitat would not deliver local benefit and would be a costly option.
- 4.13 Cambridge City Council manages a number of awarded watercourses. GCP and City officers have been working together to develop a shared approach to meet the BNG requirements for GCP schemes while maximising local benefit. By investing in habitat creation and enhancement on these watercourses, the GCP would be able to deliver linear aquatic BNG locally, and in doing so capture the positive externalities of habitat creation within the local area. Initial survey works has been undertaken on three watercourses, assessing the feasibility of:
- Dry channel restoration on Sheep's Green and Coe Fen (hereafter Sheep's Green scheme);
 - River condition enhancements to Cherry Hinton Brook; and
 - De-culverting an existing streamway on Midsummer Common.

- 4.14 Of these options, the Sheep's Green scheme is the most deliverable from a technical perspective and therefore it is recommended this is taken forward first. With further consideration given to other options in due course and subject to future requirements.
- 4.15 The Sheep's Green scheme would build on the earlier success of 'The Rush' streamway restoration project delivered by Cambridge City Council. The proposed restored channels would pass under existing structures.



Figure 2 Sheep's Green scheme concept design

- 4.16 The GCP BNG approach aligns with the wider Green and Blue Infrastructure (GBI) approaches, including the Greenways GBI Strategy. Specific measure intended to compliment the BNG approach include:
- Maximising the use of Sustainable Drainage Systems (SuDS), including rain gardens where practical;
 - Working within project red lines to maximise opportunities for urban tree planting wherever it is practical to do so;
 - Where appropriate look for innovative means to deliver additional greenery in urban environments beyond tree planting. Specific measures could include utilising pre-grown meadow turf to provide diverse, resilient, and fast establishing urban wildflower habitat, incorporating green roofs on structures such as bus shelters, and including green walls or other vertical planting opportunities into designs;

- Minimise the use of tropical hardwoods in street furniture and construction, unless there is an exceptional environmental, heritage, or social ground for doing so; and
- Promoting the use of natural materials, including European hardwoods from sustainably managed forests and coppices, and considering the whole life carbon footprint and end of life disposal of materials.

4.17 Combine these measures will help to further support biodiversity beyond the scope statutory BNG regime.

5 Consultation and Engagement

5.1 The proposed approach was developed with input from ecologists from Cambridgeshire County Council, Greater Cambridge Shared Planning Service, and Cambridge City Council.

5.2 An exercise was also carried out to review habitat banks within the Greater Cambridge area.

5.3 Biodiversity opportunities have been included in discussion with interested landowners directly impacted by GCP schemes, and habitat creation opportunities have been included in land negotiations where appropriate.

5.4 GCP officers continue to share project updates with the Cambridge Conservation Initiative with a view to exploring research and innovation opportunities in urban biodiversity.

5.5 The draft proposals for implementing the BNG approach were shared with the GCP Landscape, Heritage and Environment forum.

5.6 Habitat creation and landscaping plans, including biodiversity gain plans where required by the planning process, are subject to further consultation on a project-by-project basis as appropriate.

5.7 Cambridge City Council ran a survey for comment on the proposals for Sheep's Green on 26 September 2025 through to the 19 October 2025.

6 Options and Emerging Recommendations

6.1 As noted above survey work is ongoing. Overall, the emerging results to date suggest that the goal of 20 percent BNG is achievable, but that there will be a limited supply of new habitat created early in the programme, before significant habitat – including a potential surplus beyond 20 percent – is created by larger projects later in the programme. To address this the overarching BNG delivery approach is broken down into three phases.

6.2 **Phase one** will address the early programme supply constraints by securing habitat sites required to meet planning conditions and enable the delivery of GCP schemes. In line with Cambridgeshire County Council wider strategic approach to local nature

recovery, Lower Valley Farm is proposed as one of the options for GCP projects to consider for securing offsite area and hedgerow habitat. Final selection of offsite locations will be made through an officer assessment carried out in line with all procurement rules and processes and with regard to strategic nature priorities, value for money, the requirements of the GCP Programme. Where appropriate, GCP will also explore bespoke habitat creation with interested landowners/managers including members of the GCP Landscape Heritage and Environment forum. Only if all options for local delivery have been exhausted will GCP consider the use of habitat banks outside the local planning area or, as a last resort, the use of statutory credit.

- 6.3 For linear aquatic habitat, GCP is proposing working in partnership with Cambridge City Council, in consultation with planning and ecology officers at Cambridgeshire County Council and the Greater Cambridge Shared Planning Service, to deliver biodiversity improvements to awarded watercourses within the City.
- 6.4 **Phase two** of the BNG approach will involve delivering considerable net gain as part of major infrastructure projects.
- 6.5 The Cambridge South West Travel Hub (CSWTH) is currently projected to deliver an additional 77.59 units of area habitat over a baseline of 142.67 for a total of 220.26, a net gain of over 54 percent. The Cambridge South East Transport phase 2 (CSET 2) transport corridor is currently projected to deliver an additional 140.46 over a baseline of 279.29 for a total of 419.75, a net gain of over 50 percent. These figures will be refined at the detailed design stage, where opportunities to further enhance the BNG score will be examined.
- 6.6 Combine the CSWTH and CSET 2 schemes as envisioned would deliver significant habitat at scale and make a major contribution to achieving 20 percent BNG across the GCP programme.
- 6.7 **Phase three** will involve managing GCP created habitat long term. Specifically, in the event GCP exceeds the programme wide target of 20 percent BNG, it would potentially be possible to accredit and sell surplus BNG units. This would:
 - Recover the costs of earlier investments and potentially generate a return;
 - Secure funding for maintenance of the created habitat; and
 - Support the continued sustainable growth of Cambridge by providing established habitat units to the local BNG market.
- 6.8 While provision for the sale of surplus units is made in BNG regulations, these regulations themselves remain novel. Therefore, further work would be needed to access the possibility of this and understand the technicalities and how they apply in the context of the GCP programme.
- 6.9 Throughout each phase, in line with The Biodiversity Gain Hierarchy, the proposed GCP approach is to prioritise the avoidance of adverse effects and the use of onsite habitat enhancement and creation, before considering offsite options. As a minimum, every GCP project is expected to achieve at least 10 percent BNG through an appropriate combination of onsite and offsite measures.

- 6.10 Furthermore, under the proposed approach GCP will seek to maximise positive externalities from the delivery of BNG. This will include consideration of placemaking benefits and the integration of Green and Blue Infrastructure (GBI) into schemes as set out in the established Greenways GBI Strategy. In rural areas, the GCP will focus on the creation of habitat and the delivery of ecosystem services at a larger scale. To support these wider aims, the GCP is looking to secure the overwhelming majority, if not all, habitat with the geographical area of Greater Cambridge.

7 Alignment with City Deal Objectives

- 7.1 The Infrastructure Programme BNG approach will:
- Contribute to securing the continued economic success of the area through meeting planning requirements required to enabling the delivery of infrastructure improved access and connectivity;
 - Contribute to reducing carbon emissions through tree planting and habitat creation in line with the partners' zero carbon commitments; and
 - Bring wellbeing and productivity benefits from improving people's proximity and access to nature via urban greening and the creation of new nature reserves.

8 Citizens' Assembly

- 8.1 The Citizens' Assembly members developed and prioritised their vision for transport in Greater Cambridge. The third highest priority was to be 'Environmental and zero carbon'.
- 8.2 In addition to voting on measures to reduce congestion, improve air quality, and public transport directly, Assembly members also developed and prioritised a number of supporting measures to compliment these. Of the supporting measures 'Plant more trees' receive the second highest number of votes.
- 8.3 Responding in Spring 2020 GCP reaffirmed a commitment to biodiversity net gain and advised that schemes would consider how to achieve this.

9 Financial Implications

- 9.1 The cost of onsite measures, including provision for maintenance where appropriate, will be met from existing budgets.
- 9.2 Subject to approval of the recommendations, any initial purchase of options at Lower Valley Farm or other local Habitat Banks will be met from the existing programme budget, execution of those options on behalf of projects will be met from the relevant project budgets.
- 9.3 The first phase of work to deliver linear aquatic and specialist habitat will be supported from the existing programme budget.

9.4 Have the resource implications been cleared by Finance? Yes
Name of Financial Officer: Rebecca Bartram

10 Next Steps and Milestones

10.1 Subject to Executive Board approval of the recommendations. The next steps for delivering BNG are as follows:

- Continue comprehensive project-by-project surveys to understand baseline, projected post-development, and final BNG scores, in line with the overall BNG approach;
- Continue to design and deliver GCP projects in accordance with the Biodiversity Gain Hierarchy;
- Secure habitat at Lower Valley Farm or an alternative local habitat bank as appropriate – allowing projects to meet planning conditions and unlock early scheme delivery – and continue to work to identify suitable sites of the creation of habitat not available at local habitat banks.
- Commence technical design and legal work to progress the Sheep's Green scheme channel restoration project; and
- Continue work to assess how to manage a possible surplus of habitat and secure a lasting BNG legacy.

Background Papers

Source Documents	Location
December 2022 Executive Board	Council and committee meetings - Cambridgeshire County Council > Meetings Calendar