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Mandatory Biodiversity Net Gain:

A New Era for Ecology in the Planning System?



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Biodiversity Net Gain can elevate ecology to a pivotal position in the planning system, but it also brings challenges – especially for Local Planning Authorities. New research suggests novel processes and technology will be needed to manage the risks and grasp the opportunities.

When Biodiversity Net Gain (BNG) becomes mandatory throughout England in January 2024, it will mark the start of a potential revolution in the role ecology plays in the planning system. Across the country, many thousands of planning applications each year can no longer be consented without a legally binding plan to make quantified improvements in biodiversity. This brings great opportunities, to reverse decades-long declines in our natural environment and enhance local communities. And it brings new risks and burdens – across the system, and in particular for Local Planning Authorities (LPAs).

It also represents a paradigm shift in how ecology operates and is perceived within the planning community: moving from (in the eyes of some) a damage-limitation exercise to a function that delivers significant benefits for biodiversity and local communities (and, in some cases, revenue for LPAs).

Paul Mellor, who holds a senior planning role at the London Borough of Bromley and is both a Chartered Town Planner and a Full Member of CIEEM, told us: “BNG is thrusting ecology into the mainstream. Where previously ecological input was in many cases sporadic and sometimes peripheral, it is now an intrinsic, legal requirement from day one for a great many applications. This has implications for colleagues across the planning system, including in planning policy and management as well as ecologists.”

To grasp these opportunities, ecologists, planners and their colleagues need to handle a range of challenges, including analysing and tracking large amounts of complex data over a period of decades.

This article, an expanded version of the article published on the CIEEM blog in July 2023 (Marsh and Forup 2023), summarises recent research into how to meet these challenges. Carried out

by ecological software firm Verna in collaboration with a pilot group of seven LPAs, the research programme has also included interviews with a wider group of over 40 LPAs and expert stakeholders from local government, central government, academia and consultancy. The author is Director of Ecology at Verna and, together with the wider Verna team, we engaged with the pilot group on a regular basis to understand their existing processes around ecology casework, including BNG for those with a requirement for net gain defined in local policy. Through this engagement, a wide range of pain points – and potential ways to overcome them – were identified.

LPAs sit at the heart of the BNG system

The framework created by the Environment Act 2021 dictates that consent for every relevant planning application will include a condition requiring a BNG plan to be approved by the LPA prior to commencement of works. This plan must include detailed measures to enhance and/or create habitats over a 30 year period (potentially both on and off site), with regular monitoring to ensure these actions are on track.

LPAs sit at the heart of this system. The government has tasked them with managing and enforcing BNG through the planning system, and under the newly strengthened Biodiversity Duty LPAs are required to enhance biodiversity and to report on BNG progress. This role for LPAs is both a legal requirement and

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crucial for ensuring the benefits of BNG are realised.

With local government ecologists already overstretched, these new duties have consequences for people working across the planning system. Within LPAs, planning, validation and enforcement officers will all face new demands and ways of working. And for ecology consultants creating proposals for submission, an understanding of LPAs' requirements will be vital in getting plans approved.

If this transition is not managed well, it will certainly cause disruption across the planning system – and in the extreme it could even lead to legal action, public backlash or a rethink of BNG policy.

BNG brings a host of new requirements for LPAs

Our research has identified a large number of BNG-related challenges for LPAs that are additional to existing requirements. In many LPAs across England, ecology teams lack spare capacity, and they are poorly positioned to handle the considerable additional workload posed by BNG. However, getting internal signoff to hire extra staff can be very challenging – and will effectively be impossible in the most cash-strapped LPAs. Even where there is recruitment, attracting qualified candidates can be very difficult. We know of several examples where LPAs have had no applicants to advertised posts.

Some LPAs hope to involve the wider planning teams on certain aspects of BNG. For example, validation teams may undertake an initial check of submitted information to assess if minimum standards have been met, and only when this is the case will the ecology team be asked for a consultation response. Many LPAs intend to not involve the ecology team in simpler

planning applications that involve the Small Sites Metric (SSM) as opposed to the standard Biodiversity Metric used for larger schemes, and indeed this is what the SSM has been designed for. The SSM is intended for use on small development sites that meet certain criteria, such as having no priority habitats or European protected species, and where no off-site interventions are being proposed.

However, for applications involving larger sites, assessing BNG proposals can be extremely time consuming. Tasks include relating data within Biodiversity Metrics to information in baseline reports. The Biodiversity Metric itself is a complex spreadsheet containing up to 18 pages of data, each with many long rows containing complicated inputs and calculations. Where baseline habitats and their condition cannot be verified, the LPA may seek clarifications from the applicant.

Experienced staff must also establish how the mitigation hierarchy has been applied and check the feasibility of the proposed habitat enhancement or creation proposals, especially where target habitats and conditions appear particularly ambitious.

Following the assessment stage, once a scheme is taken forward to construction, further work will be needed to assess the detailed habitat management and monitoring plan, and it must be verified that land agreements are in place, which may involve both on- and off-site areas.

When construction is complete and BNG habitats have been established, the scheme enters its minimum 30 year monitoring phase, during which time regular monitoring reports will be issued by the site owner/operator that require appropriate processing and assessment by the LPA to ensure that stated commitments are being delivered. In addition, LPAs must report on their BNG delivery as part of their enhanced Biodiversity Duty and this in turn requires robust management of BNG data.

Assurance of BNG implementation is an underappreciated challenge

Some of the challenges described above are now well understood, and

the most forward-thinking LPAs are identifying processes to deal with them. However, the scale and requirements of the new monitoring work remain generally underappreciated. This is partly owing to uncertainties about requirements, as secondary legislation and associated guidance was not due for publication until November 2023. At the time of writing (October 2023), LPAs have only been informed by the government that it is up to them to define specific and proportionate monitoring requirements as part of planning conditions and obligations used to secure all off-site BNG and all 'significant' on-site BNG.

The legal responsibilities for assuring BNG delivery are complex and will vary with the type of project and the bodies involved (potentially including landowners, developers, management firms, residents' committees and habitat bank operators). Typical delivery mechanisms include section 106 agreements or conservation covenants. Section 106 agreements – also referred to as planning obligations – are legal agreements between a planning authority and a developer (or undertakings offered unilaterally by a developer) to ensure that certain extra works related to a development, such as BNG delivery and monitoring, are in fact undertaken. Conservation covenants are agreements made between a landowner and a 'responsible body' to do (or not to do) something on their land for a conservation purpose, such as BNG. Responsible bodies must be approved by the Secretary of State and can include local authorities and other bodies that have at least some main activities relating to conservation, such as conservation charities.

Regardless of which delivery mechanism is used, however, in every situation the LPA has a watchdog role. In some cases this may be as simple as ensuring satisfactory legal agreements are in place at the outset and collecting data over time to feed into fulfilling statutory reporting duties and providing information to stakeholders such as councillors and citizens. In a significant number of cases, however, the LPA will need or want to actively monitor the project over its 30 year lifespan.

What might this workload look like? To assure a project, the LPA should receive and scrutinise an ecological monitoring report on a defined schedule specified based on the level of risk in delivery. An example might be reports at years 1, 2, 5, 10, 20 and 30 following the establishment of BNG habitats and/or the end of construction. Every project sets its own 30 year schedule, so the total burden grows as more projects are consented. If an LPA consents to 300 projects each year that need monitoring, after 1 year of mandatory BNG checking these reports might require around 8 weeks of staff time; after 5 years this might have grown to 24 weeks per year, around 50% of a team member's time. (These estimates assume that it takes just 1 hour to read and file or respond to each report.)

This is when everything goes smoothly. But there will inevitably be bumps along the way. To handle those, LPA teams may also need to:

- keep track of who is responsible for implementing BNG plans, including as land changes ownership or different bodies take over (possibly with implications for subsequent monitoring and enforcement approaches, e.g. in the case of residents' committees)
- check monitoring reports are submitted and chase missing ones
- take action when plans go off-track or management actions haven't been implemented, including negotiating remedial steps and ensuring relevant documentation is updated (such as the BNG plan and Biodiversity Metric), and using appropriate enforcement powers where necessary, involving the LPA's enforcement officers
- in some cases, undertake site visits to support all of these actions.

“ The solutions may lie partly in new policies and processes, and partly in smart systems for collecting, assessing and managing data. ”

Case study: Leeds City Council's preparations for mandatory BNG

Leeds City Council currently handles about 9000 planning applications per year with a team of 1.8 full-time equivalent planning ecologists. After April 2024 a significant proportion of these applications will fall under mandatory BNG.

The Council takes its wider Biodiversity Duty seriously, including in relation to BNG. It is now referring to itself as the BNG Monitoring and Reporting Body, and is working out how it will approve BNG plans, management plans for the lifetime of the development together with periodic progress reports, and periodic habitat monitoring reports, and also ensure off-site BNG locations are entered onto the National Register. Monitoring and reporting on consented applications will also require site visits and enforcement action, where necessary.

The Council considers that it has a responsibility to assure on- and off-site delivery equally given that, after applying the appropriate multipliers, the Biodiversity Metric regards one on-site biodiversity unit as equivalent to one off-site unit. However, on-site units will be more numerous because they are easier to create due to on-site landscaping often being required, and cheaper for residential schemes because the long-term management is paid for by residents rather than developers. On-site units are also not subject to other requirements such as conservation covenants or the National Register.

As well as developing policies and procedures to ensure that its costs to monitor and report on off-site delivery are understood and can be recovered, the Council is also considering whether any charging mechanisms can be used for on-site delivery, but this is difficult if planning conditions are used rather than planning obligations, such as section 106 agreements.

Leeds, like many LPAs, is also considering offering developers the option to buy off-site units from the Council. This aligns with the Biodiversity Duty and, given that Councils are large organisations, it is possible to avoid conflicts of interest with the right governance. For example, it separates delivery and scrutiny so that the same monitoring and reporting regime is objectively applied to all Council service teams delivering BNG as is applied to on-site delivery and by third-party off-site providers.

LPA ecologists are ideally placed to set up and deliver the BNG Monitoring and Reporting Body role, and in Leeds it is managed by the Nature Team's ecologists (sitting within Planning).

Teams will need to deliver all of this in a coordinated way, recording and transferring all relevant data as staff members move on over a 30-year period.

New processes could help LPAs manage the BNG system

Our research has found that the solutions may lie partly in new policies and processes, and partly in smart systems for collecting, assessing and managing data.

We have seen that some LPAs have put great time and effort into having policies and procedures ready for mandatory BNG. One example is Leeds City Council, which has developed a detailed approach under the leadership of Senior Nature Conservation Officer, Richard Marsh (see Box for details).

Given the data burdens, software can play an important role

It is not possible to automate ecology, and human expertise will always be needed to interpret and make judgements on complex ecological information. For example, monitoring reports will usually need to be assessed by ecologists. However, there are parts of the challenge where software is perfectly suited to assist local government ecologists and their colleagues in validation, planning and enforcement.

For example, software can:

- import the Biodiversity Metric and automatically run validation checks – such as checking minimum BNG thresholds are met, flagging any

errors or warnings in how the Metric has been constructed, and detecting any corrupted or even deliberately tampered with Metric formulae (as spreadsheet file, it is impossible for the Metric to be fully secure, and we have heard multiple reports of both corrupted and altered Metric files being submitted to LPAs)

- present imported Biodiversity Metrics via an easier interface, supporting initial assessment and long-term tracking of expected versus delivered biodiversity units
- check Habitat Management and Monitoring Plans are on file, keep track of updated versions and help check that plans are based on good ecological science
- keep track of what reports are due when, flag any that are overdue, and assist with prompting the responsible organisations to meet their obligations
- highlight the most risky habitat enhancement or creation plans, to help prioritise human time (this could enable an element of risk-based scrutiny, which may be inevitable given constrained resources)
- provide a robust documentation trail when enforcement is required
- calculate and report progress and biodiversity units delivered across all sites and projects – including in formats tailored for statutory reporting to central government, progress reporting to stakeholders or Freedom of Information responses.

It has become clear that existing software used by LPAs is not able to handle these new challenges created by BNG, in particular the need to assess and import BNG-specific data from thousands of cases, track and analyse monitoring information over decades and present collated reporting of these data regularly to a range of audiences.

Verna is building a software tool (called Mycelia) to address these needs and offer other areas of support. We are continuing to learn about and collaborate with other organisations addressing these issues, and welcome additional partners in this effort.

As well as saving LPA teams a great deal of time, having the right processes and software in place could help create

confidence in the whole BNG system and reduce the need for active enforcement. If everyone knows LPAs are managing the situation successfully, everyone is more likely to proactively comply with their responsibilities.

Global leadership on integrating ecology into planning?

If the ecology and planning communities can work together to make mandatory BNG successful there is potential to deliver transformational positive impacts across England.

It could also set an example for other nations to follow. Environmental policies developed in England, and the UK as a whole, have previously influenced and provided templates for similar initiatives around the world. The UK's Climate Change Act, for example, inspired comparable legislation in many other countries. We are already aware of policy experts closely following England's BNG progress in other nations of the UK and further afield such as in the USA.

We need to create solutions together

The purpose of our collaborative research is to pool knowledge and best practice, and develop systems and approaches that can help everyone – so that across the sector we can do the best possible job of implementing these new ways of working.

To that end, we are happy to share our findings with anyone, including resources being produced by participants such as emerging BNG policies. We are also keen to hear from others conducting research or developing solutions.

We hope that by working together we can avoid BNG becoming an unmanageable burden and instead make it what it should be: an opportunity to create long-lasting nature-rich areas, and help deliver wider benefits for our communities and environment.

Reference

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About the Author

Mikael Forup CEnv, MCIEEM is Verna's Director of Ecology. He is happy to share more details of this research, and to make connections to the people and organisations involved.

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