

Kevin Austin, Deputy Director, Agriculture, Fisheries and the Natural Environment, Environment Agency – Supplementary Written Evidence (LUE0016)

1. Can enough off-site biodiversity credits be generated to deliver the necessary funds to restore habitats for delivery of the Lawton objectives of bigger, better and more joined up?

How the market interacts with BNG policy in practice will be complex and checks and balances should be put in place from the outset to ensure the market is driving the right ecological outcomes.

If strategically targeted and well-managed for a minimum of 30 years, off-site biodiversity net gain (BNG) can and should make a contribution to the Lawton objectives. However, off-site BNG should be considered only after on-site impacts are avoided and/or on-site BNG has been deemed not possible. Eftec's BNG market analysis assumes that approximately 50% of BNG will be created on-site, which shows that on-site BNG is equally important to delivering the Lawton objectives, alongside off-site markets.¹

Eftec's market analysis found that there may be a scarcity of supply of BNG units in the short to medium term in densely urban and coastal and island locations. If subject to clear guidance and strategically targeted in line with local nature recovery strategies and environmental land management schemes, trading of BNG units across local planning authority boundaries should help mitigate these potential supply problems.

The market analysis did not include a comprehensive assessment of supply and demand for riverine units but operational experience in the Environment Agency (EA) suggests that off-site BNG for riverine features (and therefore funding for river restoration through BNG) may be more challenging to achieve. It is important that BNG delivers for the water environment both on and off-site, and further market research into potential 'blockers' to this is planned.

Government has proposed a number of checks and balances to help ensure the BNG market drives effective environmental outcomes, including a register of eligibility criteria which off-site BNG would need to meet. Other measures could include:

- monitoring onward selling to identify if this is negatively impacting on Local Nature Recovery Strategy objectives, the green infrastructure needs of local communities or the price of BNG units;

¹ Eftec (2021), *Biodiversity Net Gain: Market Analysis Study*, NR0181, <http://randd.defra.gov.uk/> [accessed 30 March 2022].

- consideration of the relative benefits delivered by concentrating investment in fewer sites through stacking and bundling versus driving investment to a wider set of sites;
- clarity on how BNG schemes will be underwritten to address any local market failures;
- guidance on how long BNG units can be “banked”, to address the needs of lengthy projects to bank units whilst balancing the potentially market distorting impact of stockpiling BNG units;
- consideration of how individual major infrastructure projects may drive higher demand and prices for particular habitats, with the potential to distort local markets and the ecological outcomes delivered.

A review of the BNG market in 3 to 5 years would help to assess how successfully it is driving the desired ecological outcomes.

2. What lessons have been learned from the examples of London, Manchester, Birmingham and Essex in creating Green Infrastructure Strategies to ensure local plans deliver green infrastructure and its associated benefits without getting traded off for other objectives?

Green and blue infrastructure is a vital natural capital asset in its own right and green infrastructure plans can help identify where multiple objectives – such as flood risk management, health benefits, improved water quality and climate benefits – can be delivered. Green infrastructure strategies should complement planning decision-making rather than be used to support trade-offs.

The EA’s placed-based Area teams work closely with local and combined authorities across England, often with EA representatives embedded in local authority teams. This enables us to work strategically with local authorities on a number of green and blue infrastructure objectives across geographical areas.

Some learning from our work with local authorities on green infrastructure strategies include the importance of:

- close, collaborative working coupled with clear objectives, which enable the development of projects which are co-planned, co-financed and co-delivered;
- evidence and data to demonstrate existing benefits and identify future opportunities;
- embedding green infrastructure at a landscape and catchment scale; and
- delivering green infrastructure through the land use planning system.

Our work with Essex County Council provides the most developed learning in this context. Essex County Council has been an early adopter for a number of environmental initiatives and pathfinder projects, including green infrastructure pilots. The EA has worked in close partnership with the council on all of these initiatives, providing technical advice and support, sharing data and utilising cross agency networks to ensure that best practice was shared. Over time the council has developed an inclusive model for partnership working on the environment, building learning from previous pilot projects about the interests of key delivery partners, stakeholders, and sectors. This approach has proved successful in ensuring consensus, collaboration and buy-in from partners.

The Essex Green Infrastructure Strategy has also had very clear objectives from the outset, including:

- to protect, create and improve green infrastructure for biodiversity and people;
- to improve connectivity and inclusivity, by supporting healthier, more active lifestyles; and
- to contribute to economic growth.

The strategy partnership has worked to gather evidence about the benefits of our existing green infrastructure, explore the role of green infrastructure in local plans, and identify opportunities for new green infrastructure projects. The Essex partnership has produced an interactive Green Essex Story Map which shows the distribution of green infrastructure assets across Essex; the number of functions performed by these assets and the benefits they provide to the local populations; associations between green infrastructure provision in neighbourhoods and socio-economic characteristics of their resident populations; and the prevalence of current green infrastructure assets in the vicinity of proposed sites for future housing and economic development.

You can find the Green Essex Story Map online here: <https://storymaps.arcgis.com/stories/d94ed1d6b8bb4f8484e96f2f4c68eb6d>

The Essex partnership has also always recognised the importance of delivering green infrastructure through the land use planning system. Developing Green Infrastructure Standards has been instrumental in providing guidance for Local Planning Authorities in Essex to utilise. Local Plans are produced at different times by individual local authorities and it remains to be seen how the Green Infrastructure Standards will be incorporated into new and revised local plans. The adoption of these standards within planning applications will provide additional learning for the Essex County Council partnership.

3. As a statutory planning consultee, what advice would the Environment Agency be likely to give on proposed development in the floodplain for properties with flood resilience measures (e.g. with no living space on ground floor)?

The National Planning Policy Framework (NPPF) requires planning applicants to undertake flood risk assessments where development is proposed in an area that's at risk from any source of flood risk, now or in the future, or where development would be over 1 hectare in size.

The EA provides advice on all development proposals (other than minor development) in areas that are at medium or high probability of flooding from rivers or the sea or within an area with critical drainage problems, and on all development (including minor development) within 20 metres of a Main River. The EA will advise on the suitability of the location for the development and the adequacy of the flood risk assessment, and will highlight that local planning authorities should ensure there are no other suitable locations at lower risk of flooding to which the development could be steered.

It isn't always possible or practical to prevent all new development in flood risk areas. Around 10% of England is at high flood risk from rivers or the sea – including large parts of major cities such as Hull, Portsmouth and central London. In places like this, partnership work between the EA, communities, developers and planning authorities is essential to ensure that necessary development will be safe and resilient to flooding throughout the lifetime of the development, including any future risk from climate change, and will not increase the risk of flooding to others.

Whether development meets the policy tests in the NPPF will be considered on a case-by-case basis, informed by the flood risk assessment. Precluding living space on ground floors is just one of a large range of mitigation approaches which could be deployed. However, planning decisions must also consider the safety of access and escape routes and the resilience of buildings in the event of flooding, in addition to the risk to people in buildings.

If development is proposed behind flood defences, developers will still be required to consider and safely manage residual flood risk from breaching or overtopping of flood defences or from pumped systems being overwhelmed. It is commonplace for us to request that new developments are set significantly above estimated flood levels, with flood resistance and resilience measures built-in to minimise damage and speed the rate of recovery.

We are clear that house building and most other forms of development is not appropriate and should not be permitted in functional floodplains

which are defined in planning guidance as land where water has to flow or be stored in times of flood.

4. Do we need a new definition of what is counted as floodplain?

We do not have a formal definition of the term “floodplain” but would understand this to refer to land in Flood Zone 3 which has a high probability of river or sea flooding and functional floodplains where water has to flow or be stored in times of flood. These flood zones are defined in planning guidance which can be found online here: <https://www.gov.uk/guidance/flood-risk-and-coastal-change#Table-1-Flood-Zones>

Functional floodplains are mapped by local planning authorities in their strategic flood risk assessments and all land at risk of flooding from rivers and/or the sea is mapped in the flood map for planning. This ignores the presence of existing flood defences so the extent of the natural floodplain can be understood. The flood map for planning is available online here: <https://flood-map-for-planning.service.gov.uk/>

The NPPF considers all sources of flood risk, now and in the future. It uses the term ‘areas at risk of flooding’ rather than ‘floodplain’ to ensure it considers other sources of flooding such as surface water, groundwater or reservoir flooding. It is for local planning authorities to consider and assess these sources of flooding in their strategic flood risk assessments, including the impacts climate change will have on them. The EA publishes allowances for how to account for climate change in site-specific and strategic flood risk assessments using the best available climate science. In turn, strategic flood risk assessments should inform local plan preparation and, in conjunction with site-specific flood risk assessments, decisions on individual applications.

The EA is currently developing a new National Flood Risk Assessment (NaFRA2) that will provide a single picture of current and future flood risk from rivers, the sea and surface water, using both existing detailed local information and improved national data. The new risk assessment will be available as open data and will provide risk management authorities, infrastructure providers, insurers and members of the public with more accessible and trusted data and information for making good investment, spatial planning and land use decisions. The new assessment will launch by 2024 and will be continuously improved to provide the nation’s flood and coastal risk assessment needs over the next 15 years.

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