Justification for a Biodiversity Net Gain target of 20% in Kent

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What is Biodiversity net gain?

Biodiversity net gain (BNG) is an approach to development that **leaves biodiversity in a better state than before**. Where a development has an impact on biodiversity it encourages developers to provide an increase in appropriate natural habitat and ecological features over and above that being affected in such a way it is hoped that the current loss of biodiversity through development will be halted and ecological networks can be restored.

The 25 Year Environment Plan (2018) made a commitment to embed a 'net environmental gain' principle for development to deliver environmental improvements locally and nationally. In 2019, following consultation, government announced it would mandate net gains for biodiversity in the Environment Bill.

The **Environment Bill's mandatory requirement for biodiversity net gain in the planning system**, aims to ensure that new developments enhance biodiversity and create new green spaces for local communities to enjoy. Integrating biodiversity net gain into the planning system will provide a step change in how planning and development is delivered. The Bill will provide new opportunities for innovation as well as stimulating new economic markets. This is expected to result in the creation and the avoidance of loss of several thousands of hectares of habitat for wildlife each year, which represents annual natural capital benefits of around £1.4 billion[1]. This will increase the public benefits of ecosystems, such as improvements in air quality, water flow control, outdoor recreation and physical activity. Net gain requirements will supplement, but not replace or undermine, existing protections for protected sites or irreplaceable habitats.

The Bill requires **at least a 10% gain in biodiversity value** to be secured before planning permission is granted. That "value" is calculated using a nationally applied biodiversity metric, produced and published by the Secretary of State.

The Environment Bill is currently progressing through parliament; it is expected that there will be a two year transition period for the implementation of the biodiversity net gain requirement following Royal Assent.

[1] State of natural capital: Second report to the Economic Affairs Committee

In the meantime, the National Planning Policy Framework already makes provision for biodiversity net gain in paragraph 70 "*Planning policies and decisions should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity*". And across England, net gain is already provided for within some local plans.

In addition to biodiversity net gain providing a mechanism by which the planning system and associated policies can work towards better protection of the environment and promote truly sustainable development, it also provides **an opportunity to secure investment** for the protection and restoration of biodiversity, habitats and the wider environment.

Why is biodiversity net gain required at all?

Nature is remarkable and is **essential to our lives**. It is responsible for the air we breathe, the water we drink, the soil we live on (and off) and the food we eat. It provides us with clothes to wear, materials to build with and medicines to cure. It provides us with a place for leisure, recreation and reflection and provides great joy and interest; as such it is inextricably linked to our mental health and wellbeing.

Despite the importance of nature to our very existence, nature is facing a crisis – an **ecological emergency**. The Living Planet Report[2] (2018) shows that wildlife populations have declined by over half in less than 50 years and that the variety of life on earth is disappearing fast. Furthermore, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) reports that globally one million animal and plant species are now threatened with extinction[3]. Nationally, the 2019 State of Nature Report[4] found that 13% of England's species are under threat of extinction, with 35% having declined in number since 1970. Across the UK, 133 species have already been lost.

We must act now if we are to turn around nature's fortunes – for nature's sake and for the essential role it plays in our lives.

The planning system is a critical place where the natural world regularly meets with the actions of government. With the need to build more homes for growing populations, biodiversity net gain offers a framework to promote sustainable growth. Previously biodiversity has been dealt with under a "no net loss" approach but given the continued decline of England's biodiversity, this approach is arguably not sufficient and hence an approach in which a development leaves biodiversity in a better state than before is required.

Why is a 20% target being proposed for Kent?

Kent has a wonderfully rich and varied biodiversity resource, with globally rare habitats such as the vegetated shingle of Dungeness, our ancient chalk grasslands and the marine

[2] https://www.wwf.org.uk/sites/default/files/2018-10/wwfintl_livingplanet_full.pdf
[3] https://www.ipbes.net/news/Media-Release-Global-Assessment#_By_the_Numbers
[4] https://nbn.org.uk/stateofnature2019/reports/

chalk reef habitats around our coast. Our wealth of varied habitat supports **over 3,400 rare and threatened species**, with some of these nationally rare and special species only found in Kent within the UK. The north Kent coast is one of the few remaining UK strongholds for the Shrill Carder Bee; and Kent is the only place in the south east where the Heath Fritillary is found. The specialist leafhopper *Anoscopus duffieldii* at Dungeness and the late spider-orchid on the chalk downland in East Kent are also unique to the county.

Because of the services and functions that biodiversity provides, this resource can also be described as **our natural capital**. Natural capital provides (food, raw material and growth), regulates (air, water, soil and climate) and supports us culturally with non-material benefits. It can be simply be described as the elements of nature that directly or indirectly produce value to people. Biodiversity is the "live" element of natural capital and many of the benefits that stem from natural capital are as a result of the interactions between biodiversity and non-living resources. By investing in these biodiversity assets, we are investing in our own future and wellbeing.

There are **pressures on land use** which are specific to Kent's location, such as its proximity to London and as a gateway to Europe, through road, rail, sea and air links. But the biggest pressure Kent faces is the **significant and unprecedented levels of growth**. The Kent and Medway Growth and Infrastructure Framework identified in 2018 some 178,600 additional homes and 396,300 additional people by 2031 (that's 24% and 23% growth respectively); and, in light of the recently published Planning Reforms, this is likely to be greater still.

And in addition to these homes is the infrastructure needed to support this – transport, education, health and social care, utilities and community facilities. This all requires space (land) and resources.

The Kent Habitat Survey 2012 showed that land covered by development in Kent had increased from 10.7% in 1961 to 17.3% in 2008, an increase of around 62% of the original resource. And the recent study by the Centre for Ecology & Hydrology (2020) found that Kent had the **largest net rise in urban land cover** in terms of geographical area (136km^2) between 1990 and 2015[5].

With unprecedented growth levels predicted, land take will increase even further. And a growing population needs food and materials, with intensive food production and farming placing further pressures on the land.

This continuous growth in development and urbanisation means the county now has a **highly fragmented landscape** with small pockets of habitat supporting rare and vulnerable species. Fragmentation impairs species movement and migration, meaning these isolated populations are less able to survive or adapt to changing climate conditions and are put at further risk.

An assessment of Kent's wildlife in 2011[6] reported that in the last century there have been **major losses in Kent's wildlife** with 30 species of wild plant, eight species of butterfly, one

[5] https://www.ceh.ac.uk/press/almost-2-million-acres-gb-grassland-lost-woodland-and-urban-areas-expand
[6] http://www.kentnature.org.uk/uploads/State%20of%20Kent's%20Wildlife%202011.pdf

amphibian, one reptile, 10 bird species, and two species of bat all becoming extinct in the county. In addition to this, many of the species that remain have seen big population declines, including many species of butterflies and moths, birds and wildflowers of farmland, wetland plants, adders and common toads.

In response **ecological emergencies** have been declared across the county[7].

With these exceptional pressures for the county, it is considered that a 20% biodiversity net gain target is a proportionate response and one that illustrates the county's commitment to tackling the ecological crisis that faces Kent. Furthermore, the scale of previous biodiversity losses require aspirational levels of gain to make up for them.

How will biodiversity net gain affect development and is a 20% target achievable?

A 10% minimum gain has been set by the Environment Bill, as this is the lowest level that Defra consider would actually deliver biodiversity gains. But the Kent Nature Partnership consider that given the pressures facing the county's biodiversity, a greater ambition of 20% should be set to provide greater confidence in genuine gains for biodiversity and ensure the successful recovery of nature in Kent.

Natural England's biodiversity net gain study (Vivid Economics, June 2018) considered the impacts on the economics and viability of development and concluded that a biodiversity net gain requirement was **not expected to affect the financial viability of housing developments** (up to 20% biodiversity net gain scenario); it also suggests there is a strong case for greater ambition.

The study found that for biodiversity net gain scenarios up to 20%:

- With careful design and early consideration, on site biodiversity net gain can be delivered at no or little cost.
- If it can be delivered on site, biodiversity net gain is usually cost-neutral – biodiversity on-site can attract customers, speed up sales and even increase values.
- If biodiversity net gain costs are significant, it is the landowner that will bear them rather than the developer through reduced land prices; however, according to the study most developers considered it unlikely to have a significant impact on land values.
- After a transition period, incidence of a biodiversity net gain requirement on developers was expected to be minimal or positive.
- Biodiversity net gain is not expected to reduce the number of affordable housing units.
- An increase in the biodiversity net gain requirement does not need to impact the number of dwellings, as some of net gain can be delivered off-site.
- Where there are higher costs associated with off-site delivery, these will be passed through to the landowner but represent less than a 1.5% uplift.

[7] Ecological emergencies have been declared by Kent County Council, Maidstone Borough Council, Swale Borough Council, Thanet District Council, Tonbridge & Malling Borough Council, Tunbridge Wells Borough Council

The Defra assessment[8] similarly concluded that the additional costs will fall to the landowner. Their assessment states that when mandatory requirements that are transparent and clearly defined are imposed across all developers, developable land prices should fall to absorb the policy cost as developers 'pass through' the cost. Evidence from industry and academia supports this, showing that development costs are passed back through to land prices once the market has adjusted to the new policy. It states that **house prices and developer profits appear inelastic with respect to extra costs**, with land prices absorbing the change.[9][10][11]

The Defra impact assessment also found that the **level of net gain requirement makes relatively modest difference to the costs of mitigating and compensating for impacts** when assessed against the more significant costs of achieving no net loss and wider development policy objectives. It found that the majority of the costs associated with net gain are incurred to correct for the initial loss of biodiversity through development (i.e. achieving only 'no net loss'). For example, a 10% net gain is in fact a requirement to deliver approximately 110% of the total lost biodiversity[12]; a 10% gain therefore represents a relatively small proportion of overall habitat creation/enhancement requirements. Further more, **the additional investment required to move from 10% net gain to 20% does not mean twice the expense**. As the Natural England assessment found, **careful design and early consideration can see the achievement of significant biodiversity improvement with little or even no additional spend**.

Overall, Defra's analysis indicated that **net gain delivery costs are likely to be low** as a proportion of key variables such as build costs and land prices. In addition, they found it is **unlikely to lead to a significant increase on existing average developers contributions**.

The table below provides the modelled delivery costs as proportion of build costs for the south east.

	Scenario A (Developer is able to avoid significant loss and mitigates and delivers 10% net gain on site)	Scenario B (Developer is unable to compensate all impacts on-site, but is able to secure local compensatory habitat creation)	Scenario C (Developer is unable to compensate on site and is unable to find local compensatory habitats in which to invest. This scenario reflects the likely maximum cost of BNG)
Greenfield delivery	0.1	0.7	2.4
Brownfield delivery	<0.1	0.1	0.5

Defra state that of the nine largest housing developers (which together account for 52% of residential completions), six already have some form of habitat mitigation and creation policy and are therefore already delivering biodiversity net gain[13].

[8] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/839610/net-gain-ia.pdf
[9] https://www.savills.co.uk/research_articles/229130/240942-0
[10] https://www.citymetric.com/politics/granting-planning-permission-massively-increases-land-values-shouldnt-state-get-share-1154
[11] https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1759-3441.1999.tb00944.x
[12] Approximately because the 10% is applied to the full biodiversity value of the development site, rather than only those lost or in the structures' footprint
[13] Completion figures and policies taken from 2017 annual reports from Barratt, Bellway, Berkley, Bovis, Crest Nicholson and Redrow

And although a mandatory requirement for biodiversity net gain across England is new, its delivery is not and therefore the feasibility of delivery has already been demonstrated.

Lichfield case study

Lichfield District Council requires a net gain of 20% on new development (this is currently measured against gross units lost, rather than the full within-boundary baseline). Experience to date suggests that developers are able to meet this requirement and often achieve much greater levels of biodiversity net gain, with the planning authority reporting the following since the introduction of the net gain approach in 2015:

- 80 major applications approved since model adopted.
- All applications demonstrated a likely net gain above 20%.
- A number of these developments are achieving greater than 100% net gain.
- Average likely net gain score in Lichfield District is 59.33%.

Areas delivering biodiversity net gain through planning or forming an approach[14]

Barrow-in-Furness Borough Council
Basingstoke & Deane BC
Buckinghamshire & Milton Keynes
Cornwall Council
Dartmoor National Park
Dorset Council
Doncaster
Dover District Council
East Devon District Council
Essex
Exeter City Council
Exmoor National Park
Folkestone & Hythe District Council
Greater Manchester
Isles of Scilly Council
Lake District National Park
Lichfield District Council
Mid Devon District Council
Milton Keynes Council
North Devon District Council
OxCam Growth Arc
Oxfordshire
Plymouth City Council, Plymouth & South West Devon Plan
Salford
South Cambridgeshire District Council
South Downs National Park
South Lakeland District Council
South Oxfordshire District Council
Suffolk Coastal District Council
London Borough of Sutton

[14] Provided by Natural England, 29th September 2020

Teignbridge District Council Torbay Council Tunbridge Wells District Council Vale of White Horse District Council Warwickshire & Solihull

Within Kent, Otterpool Park Garden Town is committed to delivering a 20% biodiversity net gain across the development.

Biodiversity net gain in Kent
Otterpool Park Garden Town, Folkestone and Hythe District Council The development has been designed to deliver a 20% biodiversity net gain across the whole site and almost half of the development will be green space. The site is currently large areas of grassland and arable land. However, rivers, ponds, hedgerows, orchards and woodland all form part of the site and the most valuable of these will be protected, as well as being buffered by features such as a river corridor and woodlands in appropriate, high quality habitats. With 50% of Otterpool Park land being set aside for playing fields, parks, allotments, orchards and habitat, and approximately 4% of the land also being retained for agricultural use, the preservation of significant green space will ensure continued support to habitats and biodiversity. The most valuable existing habitats will be protected, and others will be created, including wetlands, ponds and areas of tree planting.

Kent is not the only county where a biodiversity net gain target over the minimum 10% has been secured.

Local Planning Authorities committed to delivering biodiversity net gain in excess of 10%
Salt Cross Garden Village, West Oxfordshire District Council – 25% Swindon Borough Council – 20% Buckinghamshire and Milton Keynes – promoting 20% within growth corridor and potentially Garden Town Lichfield District Council – 20%

How will the biodiversity net gain approach benefit the county?

The potential benefits to biodiversity from a net gain approach are obvious but it is **not just biodiversity that will benefit**.

A high functioning and healthy ecosystem benefits more than just wildlife. It provides a range of **ecosystem services** that are vital to the people of Kent. Investment in the county's biodiversity via net gain will help to restore and enhance many of the functions including air, water, soil and climate regulation. It will also support the productivity of the county, and

therefore economy, in terms of food and raw materials. Plus it will support our residents with non-material and health and wellbeing benefits.

Increased biodiversity provides **natural solutions to climate change**, helping us reach our **net zero targets**, through the carbon sequestration properties of, for example, trees, hedgerows, grassland, wetland and saltmarsh. It can also help us to mitigate and adapt to climate change by, for example, managing and slowing water flow, providing areas for water storage and providing cooling effects.

Biodiversity net gain can help to deliver additional green space which in turn delivers **health and wellbeing and wider societal benefits**. Recent evidence suggests that living in or near to greener environments reduces mortality rates and improves mental wellbeing[15]. A study of over 19,000 people in England looked at the effects of spending 2 hours or more a week in or around open green spaces. The results showed a significant increase in the likelihood of people reporting good health or high wellbeing[16]. Further, the social benefits of physical activity in England have been valued at an estimated £2.18 billion a year, but this could be higher if more people had access to good places to exercise in[17].

Despite this overwhelming evidence, inequalities in environmental quality and accessibility exist and contribute to the health inequalities in England. A recent Friends of the Earth study[18] assessed access to greenspace, rating "neighbourhoods" from A to E, where an E neighbourhood are those most deprived of green space and therefore miss out on the health and nature benefits. E rated neighbourhoods have less than 9 square metres of public green space per capita in the area, very little garden space, and larger amounts of green space are more than 5 minutes' walk away for at least three-quarters of residents. All but two of Kent and Medway's districts featured at least once in the list of E rated neighbourhoods, with 34 areas in the county identified within this bracket.

Biodiversity net gain should go some way to ensuring that new developments offer **high quality and accessible green space** and may also provide the opportunity for investment in green infrastructure outside of the development red line.

If biodiversity net gain is delivered strategically, and in alignment with the emerging Nature Recovery Network, we could deliver **more extensive, better quality and better connected habitat**, building on the existing network of designated sites to create a robust ecological landscape that will better withstand the impacts of climate change and provide a source of pride and wellbeing for the people of Kent.

It is suggested that biodiversity net gain offers a **better deal for developers**. A standardised approach to delivering biodiversity net gain across the county provides developers with certainty and a level playing field. The streamlining of the process could also potentially

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[15] Lovell, R. (2018). Research Briefing: Health and the natural environment. A review of evidence, policy, practice and opportunities for the future. Defra project 14291. (Accessed 21 August 2020)
[16] White, M. P. and others. (2019). Spending at least 120 minutes a week in nature is associated with good health and wellbeing. Scientific Reports 9: 7730. (Accessed 21 August 2020)
[17] White, M.P and others. (2016). Recreational physical activity in natural environments and implications for health: a population based cross-sectional study in England. Prev. Med. 91, 383–388
[18] https://policy.friendsoftheearth.uk/download/englands-green-space-gap-full-report

result in savings for developers. A survey[19] found that developers rate the overall complexity and associated costs of dealing with this as the most significant cause of extra cost in the planning process. This is in addition to excessive and unpredictable delays, which in turn can result in further costs still.

Delivery of biodiversity net gain on site can also have a positive effect on the value of a the development. Proximity to open space can enhance the value of a commercial property by 3% and housing by 18%[20]. In 2016, living within 500 metres of green and blue space was estimated to be worth £78 billion to UK homes, adding on average £2,800 to property prices in urban areas[21].

It is agreed that effective Covid-19 recovery planning should "**Build Back Better**" and central to this is a **green recovery**. Delivery of biodiversity net gain on site can help deliver not only ecological gains but a high quality natural environment thriving with wildlife that local communities can engage with and realise the mental and physical health benefits of such a connection. Lockdown during the pandemic demonstrated the importance to people of access to good quality green space and this is likely to be high on a buyers' essentials when considering a new development.

[19] https://www.fmb.org.uk/media/35090/fmb-house-builders-survey-2017.pdf
[20] Securing the Value of Nature in Kent, 2011, David Pape and Jacklyn Johnson
[21] UK Natural Capital Accounts 2019: Estimates of the financial and societal value of natural resources to people in the UK