

Title: Exemptions to biodiversity net gain IA No: NA RPC Reference No: RPC-DEFRA-5284(1) Lead department or agency: DEFRA Other departments or agencies:	Impact Assessment (IA)			
	Date: 26/06/2023 ¹			
	Stage: Final-Stage			
	Source of intervention: Domestic			
	Type of measure: Secondary legislation			
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Summary: Intervention and Options **RPC Opinion: Fit for purpose**

Cost of Preferred (or more likely) Option (in 2019 prices, 2020 present value)

Total Net Present Social Value	Business Net Present Value	Net cost to business per year	Business Impact Target Status
-£405.9m	£137.6m	-£16.0m	Qualifying provision

What is the problem under consideration? Why is government action or intervention necessary?
 The primary aim is to avoid disproportionate burdens on all developments under the Town and Country Planning Act and the risk of the original biodiversity net gain policy leading to an increased cost to business/society. Having passed primary legislation to create the policy, it has always been the intention of government to use secondary legislation to provide the detail of the approach and to make certain exemptions. If the exemptions are not made, the biodiversity net gain policy may not be fully efficient as it may lead to the over-delivery of net gain in situations where it is disproportionate for biodiversity (habitat creation) to be delivered, thereby imposing undue burden on developers and society.

What are the policy objectives of the action or intervention and the intended effects?
 The proposed intervention is designed to streamline development processes, reduce disproportionate impacts on business/society and thereby allow a more efficient delivery of net gain. The objectives that have guided policy development to date are that net gain: (1) delivers habitat creation and/or enhancement, meeting the government's ambition to leave the environment in a better state than it inherited it; (2) is simple, streamlined, and certain for developers, easy to understand and will not prevent, delay or reduce development; and (3) is of clear benefit to people and local communities.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)
Option 0: Do-nothing: Under the do-nothing option, only the exemptions set out in primary legislation (for urgent Crown development and development orders) would apply. This fails to adequately tackle disproportionate impacts to business of delivering biodiversity net gain.
Option 1: Preferred: Implement the exemptions proposed within secondary legislation. This includes exemptions for developments impacting habitat areas below a 'de minimis' (minimal) threshold, householder applications, developments undertaken exclusively for biodiversity enhancements, self-build and custom build applications and a temporary exemption for minor developments
Other options considered: Various exemptions were considered and not taken forward during earlier policy development, including brownfield sites and change of use applications, as elaborated below. There is not a cost benefit appraisal of an alternative option, given the mature stage of policy development. An alternative non-regulatory option was not considered as the net gain policy is contained in law via the Environment Act and any changes to the scope of the policy must thereby be implemented by law to be binding.

Will the policy be reviewed? It will be reviewed.	If applicable, set review date: 11/2028			
Is this measure likely to impact on international trade and investment?	No			
Are any of these organisations in scope?	Micro Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)	Traded: N/A		Non-traded: N/A	

¹ The Exemption for the High Speed Railway Transport remains in place to cover development ancillary to the remaining phases of the high speed transport network. However, the original version of the IA has been amended to account for the cancellation of the Crewe-Manchester leg of HS2. The expected wider societal benefits of the exemptions are lower reflecting the lower expected savings to government from the exemption.

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister:

Rebecca Pow

Date:

17th January 2024

Summary: Analysis & Evidence

Preferred option

Description:

FULL ECONOMIC ASSESSMENT

Price Base Year 2023	PV Base Year 2023	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -633.0	High: -53.0	Best Estimate: -517.2

COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.7		22.9	186.2
High	0.7		138.9	1123.6
Best Estimate	0.7		94.9	768.2

Description and scale of key monetised costs by 'main affected groups'

Costs to society- exemptions will mean fewer developments will be in scope of the net gain requirement, and so less habitat creation / enhancement will be delivered, relative to the do-nothing option. This is expected to cause a loss of ecosystem services/benefits to nature worth £768.2m over 10 years. This is captured through an imperfect proxy for biodiversity that partially reflects the value that private individuals place on the range of natural capital benefits they receive from local green space and nature (mostly cultural values)

Other key non-monetised costs by 'main affected groups'

Familiarisation costs to developers- there is expected to be a small cost of understanding all the relevant exemptions. This will vary by developer and their readiness for BNG. Given that developers must already understand some (limited) exemptions under the baseline, understanding exemptions from this intervention may impose a marginal increase in burden, equivalent to £0.7m in the first year.

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	0		57.8	490.6
High	0		15.7	133.1
Best Estimate	0		39.6	251.1

Description and scale of key monetised benefits by 'main affected groups'

Cost saving for business- exemptions help to mitigate against undue burden in the delivery of biodiversity net gain where it is inefficient, impractical or disproportionate to do so. This will mean less biodiversity net gain (less habitat creation) has to be delivered relative to the do-nothing. This reduces ongoing costs for developers in delivering net gain and reduces costs to society (£251.1m total discounted benefits over 10 years).

Other key non-monetised benefits by 'main affected groups'

There are wider non-monetised benefits of integration with local nature recovery networks associated with one of the exemptions (Exemption 4). This is elaborated on in the main body of text.

Key assumptions/sensitivities/risks	Discount	3.5
Sensitivity analysis has been used to test assumptions made around the number of annual householder applications, the size of extensions, the proportion of offsite areas requiring net gain, the costs of onsite and offsite delivery, the number of self/custom builds per year and the value used to assess the loss of natural capital per hectare. This is due to uncertainties and a lack of data in parameters used to inform the analysis.		

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m:
Costs:	0.1	Benefits: 20.5 Net: -20.4	
			-79.9

Evidence Base

Policy background

Biodiversity net gain (BNG) has been a requirement in national planning policy in England since 2012 and remains in the National Planning Policy Framework (NPPF). However, as of the fourth quarter of 2022, “28 authorities, or 8.7%, had adopted a biodiversity net gain policy, while a further 102, or 31.7%, have an emerging BNG policy”¹.

Government has legislated to provide powers to require a mandatory BNG approach in the Environment Act (The Act). It provides powers to make it a condition that all developments in England consented under the Town and Country Planning Act 1990 (TCPA), unless exempted, would need to deliver a 10% gain for biodiversity from November 2023.

The biodiversity gains and losses of a development will be measured in ‘biodiversity units’, using a metric which uses habitats as a proxy for biodiversity and calculates units by taking account of the type, extent and condition of habitats.

To achieve net gain, developers should follow a “mitigation hierarchy”:

1. Aim to avoid or reduce biodiversity impacts through site selection and layout
2. Enhance and restore biodiversity on-site
3. Create or enhance offsite habitats, either on their own land or by purchasing biodiversity units on the market. When purchasing via the market, the developer will pay a landowner to deliver offsite units on their behalf in order to meet their net gain requirement (known as “offsite delivery”).
4. As a last resort to prevent undue delays, purchase statutory biodiversity credits from the UK Government. The developer must first demonstrate that they are unable to achieve biodiversity net gain through the available on-site and offsite options. In the long term, the nascent private market is expected to develop in order to provide biodiversity units at competitive rates for developers, but there is a role for government at least in the short term.

Problem under consideration and rationale for intervention

Provisions for Biodiversity Net Gain (BNG) were introduced as part of the Environment Act, which achieved Royal Assent in 2021. Secondary legislation will be used to add the detail of previous policy commitments, including applying targeted exemptions and giving clarity on the role and substance of elements such as the biodiversity gain site register.

This impact assessment forms one of four separate assessments (three of which are Defra-led and one which is led by the Department for Levelling Up, Housing and Communities [DHLUC]), each of which look at the impact of implementing one statutory instrument. This impact assessment appraises the costs and benefits of the statutory instrument being introduced, to apply “exemptions” to the requirement.

If the statutory instruments were not introduced, the provisions in the Environment Act would be applied to types of residential and non-residential development (in the Town and Country Planning Act) to which government did not intend to apply it. The aim is therefore to reduce disproportionate burdens on developments and the risk of unclear policy leading to an increased cost to business and reduced compliance. Therefore, the primary failure this legislation aims to avoid is government policy failure.

Rationale and evidence to justify the level of analysis used in the IA (proportionality approach)

Whilst there is some uncertainty in parameters used to inform this analysis (which are discussed in the sensitivity analysis), this is a reasonable best assessment of the policy intervention based on Defra's 2019 net gain impact assessment¹, Defra's impact assessment on BNG for nationally significant infrastructure projects², economic literature on net gain³ and discussion with stakeholders including the Department for Transport (DfT).

Details of the gaps in the evidence are given in the relevant sections below, but some key limitations include:

- There is no reliable data to capture the loss of habitat for very small-scale developments meaning the assessment of the impact of a de-minimis threshold could not be quantified below. A greater understanding of the impact of this de-minimis threshold may be possible at a local authority level once BNG is live and planning authorities begin to process biodiversity gain plans⁴
- There is no reliable data on the average size of householder developments in England (for example, extensions). Figures used (from a third-party source) are difficult to verify. Once BNG is live and planning authorities begin to process biodiversity gain plans, this may allow a greater understanding on a local project level.
- The natural capital value loss associated with householder developments is difficult to place an accurate value on and is later tested in sensitivity analysis.

Description of options considered

Given BNG has already gone through full options generation, selection and appraisal process, the following options are considered:

Option 0: Do nothing: BNG under primary legislation

Under the do-nothing, all developments in England consented under the Town and Country Planning Act (TCPA), unless exempted in primary legislation, would need to deliver a 10% net gain for biodiversity. The biodiversity gains and losses of a development will be measured in 'biodiversity units', using a metric which uses habitats as a proxy for biodiversity and calculates units by taking account of the type, extent and condition of habitats.

Under the do-nothing, the scope of BNG does not apply in relation to development for which planning permission is granted:

- (i) by a development order;
- (ii) Urgent Crown development (i.e. developments deemed of national importance).

This option fails to consider the full scope of exemptions which would help mitigate additional complexities associated with delivering net gain (which in turn may reduce burdens on local planning authorities [LPAs]) or create some process leniencies which could help reduce developer costs in achieving net gain.

Option 1: Preferred: Implement BNG with suite of proposed exemptions via secondary legislation

Primary legislation sets out powers for the Secretary of State to exempt development of a certain description from the mandatory 10% biodiversity net gain requirement.

¹ [Net gain impact assessment \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

² [Impact Assessment BNG for NSIPs November 2021.pdf \(defra.gov.uk\)](https://www.defra.gov.uk)

³ Eftac (2021) Biodiversity Net Gain: Market Analysis Study, NR0171 www.randd.defra.gov.uk

⁴ A document which sets out an understanding of how proposed development intends to meet the biodiversity gain objective.

Option 1 exempts all of the following from the mandatory 10% net gain requirement, that would have otherwise had to deliver net gain under the do-nothing option:

Table 1. List, description and rationale for exemptions

Number	Exemption	Description	Rationale
1	Temporary exemption for minor developments	<p>The biodiversity gain planning condition does not apply in relation to planning permission for a small development where—</p> <p>(a) the application for planning permission for that development was made before 1st April 2024; or</p> <p>(b) planning permission is granted for that development which has effect before 1st April 2024.</p> <p>“Small development” means a development which is not a major development within the meaning of article 2(1) of the Town and Country Planning (Development Management Procedure) (England) Order 2015⁽⁵⁾.</p>	<p>In order to lessen the initial burden of biodiversity gain requirements on small developers, these regulations will extend the transition period for small sites until April 2024. Therefore, a development which meets the definition of a minor development will be exempt until April 2024. This exemption allows a longer period for Local Planning Authorities and smaller developers to adapt and adequately prepare. Defra does not intend to extend this further beyond April.</p>
2	Developments impacting habitat areas below a ‘de minimis’ (minimal) threshold	<p>Defra propose a de minimis threshold applies when development contains an area of existing low or medium distinctiveness habitat of less than a given threshold area.</p> <p>The de minimis threshold applies to the area / length of habitat within the total development footprint, not just the area or length of habitat lost or degraded as a result of development.</p> <p>We propose a de minimis threshold applies when development contains an area of existing low or medium distinctiveness habitat of less than 25m². For linear habitats, the de minimis threshold applies when a development contains a total length of less than 5m of low or medium distinctiveness habitat.</p> <p>If a development contains less than 25m² of non-priority area-based habitat but 5m or more of linear habitat, it would not be subject to the de minimis exemption.</p>	<p>The de minimis threshold is set at 25m² for area-based habitats and 5m for linear habitats based on</p> <p>A) responses to Defra’s consultation on BNG Regulations and Implementation (2022).</p> <p>B) Consideration of case studies.</p> <p>The chosen thresholds, and the decision to extend the exemption to low and medium distinctiveness habitats only, ensure the BNG requirement is not overly burdensome to small and medium developments, whilst ensuring any significant loss of biodiversity value is avoided.</p>

⁽⁵⁾ S.I. 2015/595.

		If a development contains less than 5m of linear habitat but 25m ² or more of non-priority area-based habitat, it would not be subject to the de minimis exemption.	
3	Householder applications	Defra propose an exemption for householder applications, such that the biodiversity gain planning condition does not apply to a development which is the subject of a householder application within the meaning of regulation 2(1) of the Town and Country Planning (Development Management Procedure) (England) Order 2015(d).	Defra do not consider it proportionate to apply the mandatory biodiversity net gain requirement to householder applications. This decision was verified by responses to the 2022 consultation.
4	Developments undertaken exclusively for biodiversity enhancements	<p>The biodiversity gain planning condition does not apply in relation to planning permission for a development which is undertaken solely or mainly for the purpose of fulfilling, in whole or in part, the biodiversity gain planning condition which applies in relation to another development.</p> <p>In determining whether a development is undertaken solely or mainly for the purpose specified in paragraph (1), no account is to be taken of any facility for the public to access or to use the site for educational or recreational purposes, if that access or use is permitted without the payment of a fee.</p>	Defra propose an exemption from the mandatory biodiversity net gain requirement for projects which are exclusively established methods for enhancement of biodiversity. Where an off-site biodiversity gain project itself requires planning permission under the TCPA, the enhancement may require its own planning permission and 10% net gain. It was never the intention of the BNG policy to deliver net gain upon net gain iteratively which will create undue burden on developers.
5	Self-build and custom build applications	<p>The biodiversity gain planning condition does not apply in relation to planning permission for a development which is a self-build or custom build development.</p> <p>The biodiversity gain planning condition does not apply in relation to planning permission for a development which—</p> <ul style="list-style-type: none"> • is of no more than 9 dwellings; • is carried out on a site which has an area no larger than 0.5 hectares; and • consists exclusively of dwellings which are self-build or custom housebuilding. <p>In this regulation “self-build or custom housebuilding” has the</p>	Recognising that the burden on LPAs will be greatest in the first years after commencement of mandatory BNG, we will exempt self-build and custom housebuilding. Defra will define this exemption in a way that addresses the risks of exempting large sites made up of many custom plots and will keep this under review.

		same meaning as in section 1(A1) of the Self-build and Custom Housebuilding Act 2015 ⁽⁶⁾ .	
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Other options considered:

Various other exemptions were considered and not taken forward during policy development of the original BNG policy.

BNG is at a mature stage of policy development which means that other reasonable exemptions have already been considered within Defra as well as part of previous consultations. As a result, this impact assessment does not appraise an alternative option. Although an alternative option could be to appraise the impact of only one of the six exemptions being assessed in option 1 (or a different combination), there are a large number of combinations that could be assessed and no particular reason to further examine any one of them. Hence, the analysis compares the baseline to all exemptions proposed under option 1.

A non-regulatory option would not be adequate, given the biodiversity net gain policy is laid in law and exemptions can only reasonably be delivered through regulation. Otherwise, this may lead to ambiguity in the planning system and variation/inconsistencies across local planning authorities, should this not be formalised.

As such, there is not a cost benefit appraisal of an alternative, given the mature stage of policy development and the realistic trajectory of a policy which has been developed over several years, but see below for a discussion of previous options considered.

Exemptions that Defra have considered historically as part of previous policy development since 2018 but have not taken forward include:

- Brownfield sites – Defra have previously considered an exemption for development on some brownfield sites. As part of this consideration, Defra proposed defining an exemption for brownfield sites of low biodiversity value, brownfield sites which have limited undeveloped curtilage, and brownfield sites which fall below a viability threshold. It was decided, however, that an exemption based on an appropriate combination of these criteria would deliver little added benefit and would greatly complicate the requirement’s scope for developers and planning authorities alike⁷. Furthermore, brownfield sites offer significant potential for achieving biodiversity net gain as they often have a low pre-development biodiversity value. Also, during the 2019 net gain consultation, the majority of stakeholders felt that broad exemptions such as those for small or brownfield sites would undermine the effectiveness of the policy in terms of achieving biodiversity outcomes. Brownfield sites with high biodiversity value would be unlikely to be exempted under any criteria set for a partial exemption. The inclusion of brownfield sites, typically found in urban or suburban environments, in the requirement supports our intention for biodiversity net gain to benefit people as well as wildlife. Brownfield developments only involving the redevelopment of buildings and structure on hardstanding or sealed surfaces will be automatically exempt from the biodiversity net gain requirement. Brownfield developments only impacting minimal areas or lengths of habitat will be subject to the de minimis exemption.
- Change of use applications – typical change of use application would not impact habitat or would impact such small areas of habitat to be covered by de minimis exemption. Where change of use applications do impact significant areas of habitat there is no reason to exempt these.

⁽⁶⁾ 2015 c. 17; subsection (1A) was inserted into section 1 by section 9(2) of the Housing and Planning Act 2016 (c. 22).

⁷ Consultation on Biodiversity Net Gain Regulations and Implementation January2022.pdf (defra.gov.uk). See pages 25 and 26

- Temporary applications – the biodiversity metric allows for temporary losses to be disregarded when the original baseline habitat will be restored to the same or better condition within 2 years of the loss. Because the biodiversity metric effectively removes short-term impacts from the net gain requirement, and longer temporary permissions might cause significant negative impacts on biodiversity, we do not intend to make an exemption in the regulations for temporary permissions.
- Developments which would be permitted development but are not on account of their location in conservation areas, e.g. areas of outstanding national beauty or national parks – it is likely that such developments will be small scale and so may usually take advantage of other exemptions and process easements, such as the small sites metric. We therefore consider it unnecessary to make a specific exemption for such development. This will also help to maintain high standards for protection of biodiversity in national parks and conservation areas.

Policy objective

The objectives that have guided policy development to date are that net gain:

- delivers habitat creation / enhancement, meeting government's ambition to leave the environment in a better state than it inherited it for the next generation
- is simple, streamlined, and certain for developers. It is easy to understand and will not prevent, delay, or reduce housebuilding
- is of clear benefit to people and local communities.

By implementing exemptions (applying secondary legislation), this may help to mitigate disproportionate burdens in delivering net gain where it is impractical to do so. This may help to reduce the risk of unclear policy leading to an increased cost to business and reduced compliance.

Summary and preferred option with description of implementation plan

Overall, option 1 is preferred and will involve laying the statutory instrument, which is a form of secondary legislation. Defra intend to publish draft versions of BNG statutory instruments in June 2023, before the SIs are laid in Autumn 2023.

By publishing the draft statutory instrument early, this provides six months for developers, LPAs and other actors to understand the process and effect before SIs are commenced and biodiversity net gain becomes mandatory from November 2023.

Monetised and non-monetised costs and benefits of each option (including administrative burden)

For a full understanding of the following analysis, we recommend reading the 2019 impact assessment for net gain⁸.

Costs and benefits are typically derived from the underlying 2019 net gain impact assessment In the 2019 net gain IA:

- Benefits of habitat creation and avoided habitat loss, as set out in ONS ecosystem accounts for urban areas, were captured through the (partial and imperfect) proxy of private benefits perceived by residents living near greenspace
- The costs were primarily the costs of onsite and offsite delivery of net gain to developers based on assumptions of onsite and offsite costs per hectare and per unit.

In this assessment, delivering exemptions to biodiversity net gain mean that the valuation of costs and benefits are swapped over:

⁸ Defra 2019 Net Gain Impact Assessment. Available at: [Net gain impact assessment \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904117/net-gain-impact-assessment.pdf)

- The costs to society are the loss of habitat value/biodiversity from not delivering 110% compensation for the loss of biodiversity during development. This is equivalent to what the benefits (captured through the proxy of private values perceived by residents living near greenspace) would have been, under the do-nothing.
- The benefits in this assessment are the cost saving to developers from not having to deliver net gain (or 110% compensation post-development). This is equivalent to what it would have cost developers to deliver no net loss and 10% net gain under the do-nothing.

As per the method used in the 2019 net gain impact assessment, a cumulative accounting approach is used to quantify the impacts of exemptions in this assessment.

- In the 2019 net gain IA, benefits were assumed to be cumulative, reflecting the fact that the benefits from habitat created in years prior can also be enjoyed in the current and future years. However, costs were solely incurred in the year in which they occurred because developers incur only the costs of delivering net gain in each year.
- In this assessment, applying an exemption means costs are cumulative. However, benefits associated with the cost saving to developers are not cumulative because developers will only enjoy cost savings associated with the hectares of net gain that are not delivered in each year.

All costs and benefits are in 2023 prices⁹ (and discounted to a 2023 present value), thereby updating figures used in the earlier 2019 impact assessment.

The appraisal period is from 2023-32, given BNG is expected to take effect from November 2023. A 10-year appraisal period is designed to mirror the original 2019 net gain assessment, although it should be noted that natural capital benefits do take time to be realised. The valuation method used a proxy for biodiversity and natural capital benefits in this assessment (see Table 2 below) means a longer appraisal period does not need to be considered given what is captured.

All costs/benefits are in calendar years, rather than financial years, reflecting the approach used in the 2019 net gain impact assessment. As BNG will be live from November 2023, all costs and benefits for 2023 are scaled proportionately to reflect only two months of the policy being in operation.

Table 2. Key variables, values and descriptions

<u>Key variables used for costs and benefits</u>	<u>Value</u>	<u>Description</u>
Loss of natural capital, biodiversity and ecosystem services (costs)	£18,088 (per hectare) ¹⁰	The regional natural capital value of 1ha of matured habitat is derived from the ONS ecosystem accounts for urban areas, which values green space within 100m of a residence as £4,800 per residence on average, using a hedonic pricing method. The value used is an imperfect proxy that partially reflects the value that private individuals place on the range of natural capital benefits they receive from local green space and nature. It can be difficult to determine which ecosystem services are captured through the Hedonic Pricing Method (HPM). The ONS assume that the majority of

⁹ Based on the latest GDP deflators at market prices, and money GDP March 2023 (Quarterly National Accounts) found here: [GDP deflators at market prices, and money GDP March 2023 \(Quarterly National Accounts\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-march-2023)

¹⁰ The average value of natural capital is £17,091 per hectare whilst the cost of onsite delivery is £22,219 per hectare. This would suggest that the cost of delivering net gain outweighs the benefits. However, the 2019 net gain IA concluded the benefits significantly outweigh the costs. The reason for this is because of adopting a cumulative approach across years to calculate the benefits in that earlier assessment.

the value captured is that from cultural services, such as recreation and attractive views, rather than regulating services such as carbon sequestration and temperature regulation which people are less likely to be aware of¹¹. Therefore, exemptions which lead to the loss of biodiversity, measured in terms of the impact on house prices (as a proxy), mostly reflect the loss of cultural services and do not reflect wider non-use values

This is divided by the number of people in a residence (assumed to be 3) to get value of habitat per person in a residence (£1,600). This number is then multiplied by persons per hectare for each region to give estimated regional value of habitat in hectares, which varied between £3000 and £89,000 depending on the region. The average was taken across the 9 English regions from the 2019 net gain impact assessment and uprated from 2017 to 2023 prices.

In the 2019 net gain IA, the regional values were used as the basis of calculating benefits. Because of an exemption, an average value is now used as the basis for the loss of natural capital value per hectare (because there is no data to suggest where these exemptions are spatially delivered).

Cost of onsite delivery (per hectare, 2023 prices) used to calculate benefits

Cost of offsite delivery (per unit, 2023 prices) used to calculate benefits

Unit to hectare conversion

2.5 units per hectare is used all throughout this assessment, as per the advice of Natural England.

Option 1:

Costs/benefits to government:

Costs

There may be small additional costs to government or enforcement agencies in implementing these exemptions relative to the do-nothing. This is because the exemptions add an additional process check to ensure the correct disapplication of biodiversity net gain to developments (for example verifying if a development meets the de-minimis threshold or meets the criteria for a self/custom-build), which may impose a small cost burden to local planning authorities in checking the exemption is applied correctly at a local level. Given that local planning authorities will already have to review a biodiversity net gain plan under the baseline, the incremental time increase required to ensure the exemption is applied correctly is uncertain and thus, this is not monetised. Furthermore, exemption categories are well defined within the existing planning system (for

¹¹ Value of nature implicit in property prices – Hedonic Pricing Method (HPM) methodology note - Office for National Statistics (ons.gov.uk)

example definitions for householder applications or minor developments) which reduces the additional time required to assess the correct application of exemptions locally, because these concepts are already understood in local planning. Thus, the decision will be binary as to whether an exemption applies or not. Therefore, it is assumed that any added cost of applying and verifying exemptions at the local authority level is negligible as this is a marginal increase in process above the baseline. Arguably, any potential cost is offset by the reduction in total local authority workloads due to the exemptions, which may in fact create a cost saving to local planning authorities overall. This is elaborated on below.

Benefits

As noted, there may in fact be a small benefit, through a reduction in local planning authority workloads due to the exemptions. As per the 2019 net gain IA, “there are transition and ongoing costs of policy delivery for central and local government to account for familiarisation, training, monitoring and enforcement.” This is assumed to be £12.5m annually in 2023 prices from the 2019 net gain IA and is calculated based on the representative resource requirement of LPAs according to the amount of development taking place within those areas. Exemptions to net gain mean there is less resource required for ongoing enforcement of net gain locally which could represent a potential cost saving. This is because fewer biodiversity net gain plans¹² must be reviewed relative to the baseline. It is difficult to assess and quantify the exact size of cost saving because it’s difficult to disaggregate how much of the transition and ongoing costs can specifically be attributed to the exemptions, as opposed to the wider BNG policy instruments (e.g. the register or the metric). Given the current lack of spatial analysis to understand where most of these exemptions would be delivered, it would not be sensible to suggest the cost saving for each LPA is equivalent. Thus, any attempt to adjust the £12.5m figure by the hectares of exemptions as a proportion of the total hectares of net habitat creation would not be accurate, as some local authorities would be more disproportionately affected than others. Therefore, this is not quantified and included in this assessment, but Defra expect this potential cost saving to be small.

Overall, on the balance of costs/benefits to government, it is probable that there is a net benefit (cost saving) to local planning authorities. This has not been quantified.

Costs/benefits to developers, households and wider society

Familiarisation costs

There may be some familiarisation costs to developers in understanding these exemptions.

As per the 2019 net gain IA, familiarisation costs to developers in the baseline were calculated based on the time required for training (assumed to be one working day), the hourly wage for the respective employees and the number of employees per developer that require training to familiarise with BNG. This was estimated to be £6.5m in year one (in 2023 prices).

Under the do-nothing, the scope of BNG does not apply in relation to development for which planning permission is granted by a development order or for Urgent Crown development (i.e. developments deemed of national importance). Therefore, to understand the six exemptions as imposed by this intervention may require an increase in training to familiarise with the intervention. Given that developers must already understand some (limited) exemptions under the baseline, understanding exemptions from this intervention may impose a marginal increase in burden. This varies by developer and their level of preparedness for the introduction of BNG in November 2023. The new exemptions may mean that more time (over and above the assumed 7.5 hours in a working day in the baseline) may be required to read and interpret the exemptions. Understanding the exemptions are only one aspect of understanding the wider BNG policy and it is difficult to isolate this specifically, given the interaction of different components of the policy that

¹² This core information will include: • the pre-development biodiversity value, • the proposed approach to enhancing biodiversity on-site, and • any proposed off-site biodiversity enhancements (including the use of statutory credits) that have been planned or arranged for the development

need to be familiarised in the baseline within 7.5 hours in a working day (e.g. the exemptions, the register, the biodiversity metric).

It is possible to assume that approximately, an additional 50 minutes of training and engagement is required specifically to familiarise with the proposed exemptions (where each exemption requires 10 minutes of reading). Exemptions proposed were already shared in the Defra consultation¹³. As a result, stakeholders may already be aware of exemptions that Defra plan to introduce when BNG is live in November 2023 and so 10 minutes to read each exemption is deemed sensible. To note, not all exemptions will apply to all developers. Furthermore, given familiarisation in the baseline requires 7.5 hours, an additional hour represents a 11.1%% increase in burden which in itself may be an overestimate given exemptions are a small aspect of a wider policy with many tools that require familiarisation with (e.g. the BNG metric or the register). Thus, as a conservative estimate, an additional hour is deemed appropriate to initially understand the exemptions and to interpret the changes relative to what Defra proposed in consultation.

This means an additional one-off cost of £716,546 to familiarise for all developers when applying an identical methodology as per the original net gain impact assessment¹⁴. Given the total number of developers involved in the development of building projects, this is a cost of less than £18 per developer¹⁵, incurred in the first year of the policy. This is a negligible cost relative the costs of delivering net gain or the wider ongoing cost savings delivered by the exemptions.

Furthermore, as noted earlier, the concepts and categorisations of householder applications/ self or custom build/minor developments are not new within the existing planning system. Developers will only need to familiarise with how these concepts apply to BNG specifically. Thus, it may be the case that learning about the exemptions in this intervention can be carried out under the same timeframe for familiarisation with the BNG policy under the baseline, i.e. it takes no longer than the one working day in the baseline to familiarise with BNG and familiarisation with these exemptions specifically can be absorbed or included within the one working day. Therefore, this may potentially already be reflected in the baseline.

Hence, almost all the costs/benefits are ongoing. These are discussed below, separated by exemption. The costs and benefits of exemptions 1 and 2 are unquantified and non-monetised owing to a lack of data, with qualitative analysis carried out for exemptions 3, 4, 5 and.

Exemption 1 (non-monetised)

~A temporary exemption to minor developments, such that BNG will not apply to minor developments until April 2024, instead of November 2023.

Unlike all the other exemptions which carry on into perpetuity, this is a temporary exemption.

Minor developments are defined in Table 3 below:

Table 3. Definition of minor developments

	Residential development	Non-residential development
Minor development (i.e. small sites)	Where the number of dwellings to be provided is between one and nine inclusive on a site having an area of less than one hectare or where the number of	Where the floor space to be created is less than 1,000 square metres or where the site area is less than one hectare

¹³ [Consultation on Biodiversity Net Gain Regulations and Implementation January2022.pdf \(defra.gov.uk\)](#)

¹⁴ Labour cost per hour (wage +non-wage costs in 2023 prices) for ecological consultants, planners and landscape architects multiplied by the assumed number of training sessions multiplied by 1 additional hour of training above the baseline

¹⁵ £ 716,546 divided by 41,660, which is the number of businesses in 2022 in England involved in the development of building projects

	<p>dwelling to be provided is not known, a site area of less than 0.5 hectares</p>	
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It was estimated that as per the 2019 net gain impact assessment, 16,232ha of development is in scope of BNG every year, covered by both major and minor developments. However, it is difficult to ascertain the amount of land associated with minor housing developments only, due to a lack of data. Although the area of each site is usually included within the information submitted to local authorities on planning applications, which are published on each local authority's website, a significant and disproportionate amount of work would be required to extract this information and to identify which applications were for minor developments.

As per the 2019 net gain impact assessment when analysing planning applications and land use change, a 2014 study by Glenigan¹⁶ found that the vast majority of residential planning applications are for small sites. Similarly, analysis of planning application data suggested that small sites cover 80% of permissioned residential sites, but only 12% of permissioned residential units¹⁷. For non-residential developments, small sites make up 90% of applications¹⁸, but there is no comprehensive data on the number of completions given the range of development types this includes, and the fact that some developers operate across different sectors.

As per the 2019 net gain impact assessment¹⁹, around 80% of land use change from non-urban²⁰ to urban²¹ land cover are from developments that are between 0.5 and 20 ha in size. In other words, the majority of the non-urban to urban land cover change is due to major developments. Individual cases of habitat loss are small in scale (less than 0.5 ha) but many in number. However, this makes up a small proportion of land use change (less than 20% of total area change) during the period overall.

Thus, minor developments make up majority of land use changes in terms of frequency, but only a small proportion of the land use change overall. Difficulty in ascertaining the exact proportion or range of land use change from minor developments means it is not possible to determine the proportion of the costs of BNG and ecosystem benefits of BNG that can be attributed to minor developments, and therefore it is not possible to ascertain the quantified costs and benefits of this exemption.

This exemption may lead to the temporary loss of natural capital, biodiversity and ecosystem services but also lead to a cost saving for developers from not having to deliver net gain and compensatory habitat for small sites.

Based on planning application statistics²² from 2012-13 to 2022-23, there were an average 45,178 minor residential and commercial decisions granted per year. There is insufficient data to assess the size of each minor development. For example, the average size of greenfield development is assumed to 0.033ha whereas brownfield is only 0.02ha, as per the 2019 net gain impact assessment. Similarly, there are no central estimates of land coverage for small/minor developments which varies at a local authority level. Therefore, due to analytical uncertainties, it

¹⁶ [Residential-Planning-Outcomes-and-the-NPPF-Apr-14FINAL.pdf \(glenigan.com\)](#)

¹⁷ Internal DHLUC analysis produced for the Defra 2019 net gain impact assessment, based on planning application data provided by Glenigan to 2018 Quarter 1

¹⁸ <https://www.gov.uk/government/collections/planning-applications-statistics>. Analysis of planning applications for the year ending December 2017. There were 75,126 planning applications for non-residential developments, where 67,884 (90%) are classed as minor developments (small sites). 'Non-residential development' includes the following categories defined within the dataset: Office/research and development/light industry; General industry/storage/warehouse; Retail and services; Traveller pitches; and all other major developments.

¹⁹ [Net gain impact assessment \(publishing.service.gov.uk\)](#)

²⁰ Any land other than land that is both in an urban area and used for commercial, industrial or residential purposes (e.g. agriculture, forests, residential gardens). See definition of urban land below.

²¹ An urban area is defined as a human settlement with a high population density and the associated features of a built environment with infrastructure (National Ecosystem Assessment, 2011). The land in urban areas is used for many different purposes: leisure and recreation (e.g. built facilities such as sports centres), industry and commerce (e.g. factories, warehouses and offices), residential (e.g. houses and flats) and transport (road and rail networks and stations)

²² [Live tables on planning application statistics - GOV.UK \(www.gov.uk\)](#)

would not be appropriate to quantify the costs/benefits of this exemption and include this in the overall calculation of the net present social value from all exemptions in this intervention.

However, it is possible to provide an indication of the scale associated with this exemption, through the proxy of other exemptions. The average number of minor residential and commercial decisions granted per year is approximately $\frac{1}{4}$ of the number of householder applications (in exemption 3) below. Thus, assuming minor developments are similar in size to householder applications, this would suggest the net present value associated with this exemption is $\frac{1}{4}$ of that of exemption 3 and approximately worth around -£51m over a 10 year appraisal period. It is important to note that exemption 3 is an exemption in perpetuity whereas exemption 1 is temporary. Therefore, this may be an overestimate. This is purely indicative and not included in the overall calculation of the net present value associated with all exemptions because of the uncertainty associated with the average size of each small site application. However, we would expect the overall implication to society to be small (relative to the size of the BNG policy) because of the temporary nature of the exemption.

Reduced regulatory burden

Defra recognise the potential disproportionate regulatory burden on small developers or developments of imposing net gain. A survey has raised concerns about the disproportionate cost and delay small to medium-sized enterprise (SME) house builders report in bringing small scale developments through the planning system²³. Therefore, in addition to easing aspects of the process to ensure these are simplified for minor developments (e.g. use of the small sites metric), a temporary exemption for minor developments helps to boost familiarisation and preparedness of the BNG policy. This supports a core policy objective for environmental obligations in the planning system to be streamlined, a benefit to all developers, whilst having a policy that is scalable, simple and administratively light as possible.

Overall, this exemption reduces the regulatory burden short-term, particularly for small developers. Although this may reduce some biodiversity benefits from delivering BNG, this is a temporary measure until April 2024 which is likely to have a small impact on the overall benefits of the BNG policy.

Exemption 2 (non-monetised)

~To exempt developments containing habitat areas below a 'de minimis' threshold

Costs:

Loss of natural capital, biodiversity and ecosystem services:

The impact of exempting developments with less than 25m² of area-based habitat from the delivery of net gain would be the loss of biodiversity. Due to a lack of reliable data capturing the number of developments containing less than 25m² of area-based habitat or less than 5m of linear habitat, the impact of the loss of biodiversity cannot be valued or quantified.

Defra expect the loss of benefits to the environment to be small, given the de-minimis that has been set. Furthermore, regarding the loss of linear habitats, their mitigation and compensation should not require additional land on development sites and Defra would not expect significant losses to occur on the vast majority of development sites (linear features are typically retained as perimeters or as features in developments)

Benefits:

Cost saving for business:

²³ FMB House Builders Survey 2017

Because the mandatory net gain requirement is not applied to developments containing such a small amount of habitat, the result is that there is a cost saving to business from not having to deliver net gain (in particular a reduced impact on small and micro businesses, who will most typically deliver small scale development projects which may contain less habitat). Businesses also have to spend less time engaging with the biodiversity metric or engaging with local planning authorities thereby leading to a cost saving during the planning process.

Because of the threshold set and because of the lack of good quality available data on the number of developments containing habitat below the de-minimis threshold, this cost saving from not having to deliver net gain is not quantified. Given the threshold that has been set, we think the scale of costs/benefits is significantly smaller than other exemptions contained in this assessment, but it would not be appropriate to quantify this, given the existing data limitations.

Exemption 3

~ To not apply BNG to householder applications

Costs:

Loss of natural capital, biodiversity and ecosystem services:

This exemption disapplies BNG to householder applications (i.e. planning proposals used by homeowners to alter or enlarge their home). Householder applications are made up of different types of applications including extensions, conservatories, loft conversions, garage conversions, walls/fences and porches. Not all types of applications will affect greenspace (e.g. a garage conversion that doesn't expand its overall footprint area). Because there exists no breakdown of householder application by type, as a worst-case scenario it is assumed that all applications are for extensions/conservatories/types that reduce greenspace. Thus, the costs presented below are an upper-bound.

These home enhancements typically affect garden space (e.g. a rear extension which reduces the size of garden). Residential gardens provide outdoor space and the potential for private green and blue space. Gardens also potentially offer benefits of recreation, noise mitigation, carbon sequestration, mental health benefits and food²⁴. This exemption would mean that extending a property will not require 110% compensation for biodiversity. This could result in the loss of ecosystem services, as captured through the proxy for biodiversity used in this assessment, that would otherwise not be lost under option 0.

The cost was derived as follows:

- The average annual number of granted householder applications from 2012 to 2021 is 186,581²⁵. It is assumed that this will be the number of granted applications per year in all future years.
- The average size of extension is assumed to be 20m² and later tested in sensitivity analysis²⁶.
- This is used to calculate the average annual hectares of householder applications at 373 hectares per year that would theoretically have to deliver net gain under the do-nothing option.

²⁴ [UK natural capital - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk)

²⁵ DHLUC Planning Application Statistics Live Tables [online]. Available at: <https://app.powerbi.com/view?r=eyJrIjoiaMDQ1MmRlMjE0MzI1ODNmYTJlIiwidCI6ImZmMzQ2ODEwLTIjN2Q0N2Q1ODcyLTl0YTJlM5OTVhOCJ9>. An average was deemed sensible rather than a linear/exponential trend because of the fluctuation in applications granted over the last 10 years.

²⁶ <https://www.checkatrade.com/blog/cost-guides/house-extension-cost/>. This organisation spoke to the online estimators at My Build Estimate – a professional estimating company monitored by the Royal Institution of Chartered Surveyors (RICS) who provided estimated home extension cost examples. In this, 20m² was listed as a small basic extension size.

- 373 hectares is equivalent to 933 units (pre-development) meaning 1026 units (410 hectares) would need to be delivered post-development every year²⁷
- The loss of 410 hectares in one year means that in all subsequent years, this loss is maintained. Therefore, the associated natural capital losses (costs) accumulate over time.
- The hectare loss is multiplied by the estimated average natural capital value of habitat across all English regions (£18,088 per hectare).
- This accumulates year-on-year meaning that the total estimated discounted cost (losses to nature) over 10 years is estimated to be £280.1m. This is summarised in table 4 below.

Table 4. Costs of exemption 3

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Total size (ha)	68	479	889	1300	1710	2121	2531	2942	3352	3763	19156
Value (£m)	1	9	16	24	31	38	46	53	61	68	346
Discounted cost (£m, 2023 prices, 2023 PV, rounded)	1	8	15	21	27	32	37	42	46	50	280

There are reasons to suggest that this cost estimate may be an overestimate or an underestimate. It may be the case that is an upper bound for the following reasons:

- The regional natural capital value of 1ha of matured habitat is derived from the ONS ecosystem accounts for urban areas, which values green space within 100m of a residence as £4,800 per residence on average (or £5,730 in 2023 prices). In reality, extensions will sometimes be carried out on habitat that is of low significance (e.g. on some lawn or patio), which in turn means these are habitat layers of low value. The difficulty in establishing the willingness to pay for grass in a private greenspace means this cost estimate could not be refined (e.g. a willingness to pay for private greenspace could be due to health reasons or environmental reasons so it's difficult to isolate the nature or health component only). This value is later tested in sensitivity analysis.
- The valuation of biodiversity is based on the value of publicly accessible greenspace in urban areas (from the ONS) and is not specific to private greenspace. The lack of literature specifically focussing on private greenspace means that it is difficult to specifically assess the value of gardens/excludable forms of greenspace.
- Furthermore, the analysis of cost assumes all householder applications reduce greenspace, but certain types (including existing garage conversions or loft conversions) will not. The difficulty in breaking down householder applications by type means this has not been incorporated into the analysis and a worst-case scenario is presented.

The specific approach used to calculate costs in this IA means that the cultural service values captured are likely an upper bound, purely based on the analytical approach taken to quantify costs in this assessment. However, when considering a broader range of ecosystem services from the loss of habitat, this value would likely be a lower bound because of other ecosystem benefits that have not been captured in this assessment.

Benefits:

Cost saving for households:

By disapplying BNG to householder applications, this means there is a reduced impact on households (cost saving). Under the do-nothing, if a household would like to extend their property, then they would need to deliver 10% net gain. Thus, the cost saving to households is equivalent to what it would theoretically cost to deliver 110% compensation for habitat loss under the do-nothing.

Unlike bigger developments where there may be a need for offsite units, it is likely that private gardens have very low biodiversity values that could in theory (though not in a way that could be

²⁷ 373 ha x 2.5 units/ha= 933 units pre-development. 933 x 1.1= 1026 units post development, equivalent to 410 hectares under the unit/ha conversion rate used

robustly secured) be entirely compensated on site. Thus, it is assumed that 100% of net gain can be delivered on site in this case.

- Taking the 373 hectares of annual average householder applications, this is equivalent to approx. 933 units (on the assumption of 2.5 units being delivered per hectare).
- Thus, under the baseline, 1026 units (933 +10%) would need to have been delivered to meet the net gain requirement, that would no longer have to be delivered due to this exemption every year. This is equivalent to 410 hectares
- Using the onsite mitigation cost of £22,514 per hectare, the delivery of 10% net gain would cost £1.6m in 2023 and £9.7m per year thereafter. Thus, this means a total estimated discounted benefit of £75.0m as shown in Table 5 below.

Table 5. Benefits of exemption 3

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Year	0	1	2	3	4	5	6	7	8	9	
Hectares post development	68	410	410	410	410	410	410	410	410	410	3763
Onsite delivery cost (£m, 2023 prices, undiscounted)	2	10	10	10	10	10	10	10	10	10	88
Discounted costs (£, 2023 prices, 2023 PV, rounded)	2	9	9	9	8	8	8	8	7	7	75

Exemption 4

~ Where an off-site biodiversity gain project itself requires planning permission under the TCPA, the enhancement may require its own planning permission and 10% net gain. This could be prevented by exempting these projects.

The analysis below quantifies the costs/benefits of the first iterative delivery of net gain upon net gain. The iterative delivery of net gain would be infinite (in theory) without the proposed intervention and so costs/benefits would be far higher than is assessed below.

Costs:

Loss of natural capital, biodiversity, and ecosystem services:

Under option 0, where an off-site biodiversity gain proposal itself requires planning permission, the enhancement (such as wetland or pond creation) may require its own planning permission and 10% net gain. It was not the intention of biodiversity net gain to require BNG on offsite habitat compensation. This could be prevented by exempting these projects.

The proportion of offsite gain sites that then require their own planning permission is unknown, but is currently assumed to be 10%, based on Defra subject matter expert opinion. This is later tested in sensitivity analysis. By exempting the delivery of net gain on offsite units (i.e. exempting the delivery of more net gain on net gain), there may be a loss of biodiversity relative to the baseline.

This can be quantified and is derived as follows:

- As per the 2019 net gain impact assessment, the annual increase in total offsite habitat is 4,265 hectares per annum, equivalent to 10,663 units
- It is assumed that only 10% of this would need planning permission and to deliver an additional 10% net gain (i.e. 427 hectares of the 4,265 hectares per annum are eligible for the delivery of 10% net gain)
- 427 hectares is equivalent to 1067 units, meaning 1174 units need to be delivered post development (equivalent to 470 hectares using a conversion of 2.5 units per hectare). The exemption will mean the loss of 470 hectares per year and this is cumulative because losses are maintained year-on-year

- Using the average value of natural capital per hectare, £18,088, this is multiplied by the hectares lost per year that would be exempt from the delivery of net gain. Hence, the total cumulative discounted cost (losses to nature) are equivalent to £320m over 10 years, as shown in Table 6 below.

Table 6. Costs of exemption 4

Costs	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Year	0	1	2	3	4	5	6	7	8	9	
Total hectares	78	547	1,016	1,486	1,955	2,424	2,893	3,362	3,831	4,301	21,894
Loss in nature (£m)	1.4	9.9	18.4	26.9	35.4	43.8	52.3	60.8	69.3	77.8	396
Discounted loss to nature (£m)	1.4	9.6	17.2	24.2	30.8	36.9	42.6	47.8	52.6	57.1	320

Benefits:

Cost saving for business:

The exemption would avoid the iterative delivery of net gain upon net gain. This reduces the costs to business as expenses are only incurred once in the delivery of net gain and does not have to be done multiple times. Thus, the annual average benefit of this exemption is equal to the annual average cost if net gain would have to be delivered again on offsite units. This benefit is derived as follows:

- As per the above, 427 hectares of the 4,265 hectares per annum are eligible for the delivery of 10% net gain
- 427 hectares is equivalent to 1067 units, and so 1173 units (10% uplift on 1067 units) would need to have been delivered under the do-nothing once BNG is applied.
- Using the assumption of 75% onsite and 25% offsite delivery²⁸ along with the respective costs of onsite and offsite delivery in this assessment, this means £2.5m would have been incurred in 2023 and £14.9m every year thereafter under the baseline. This is therefore equivalent to the cost saving to business under option 1 due to the exemption (with total discounted benefits of £115.6m over the appraisal period), as shown in Table 7 below.

Table 7. Benefits of exemption 4

Benefits	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Year	0	1	2	3	4	5	6	7	8	9	
Onsite units	147	880	880	880	880	880	880	880	880	880	8,064
Offsite units	49	293	293	293	293	293	293	293	293	293	2,688
Expenses incurred onsite (£m)	1.4	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	76
Expenses incurred offsite (£m)	1.1	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	61
Total (£m, 2023 prices, undiscounted)	2.5	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	136.4
Discounted cost (£m, 2023 prices, rounded)	2.5	14.4	13.9	13.4	13.0	12.5	12.1	11.7	11.3	10.9	115.6

Exemption 5

~ The biodiversity gain planning condition does not apply in relation to planning permission for a development which is a self-build or custom build development.

Costs:

Loss of natural capital, biodiversity and ecosystem services:

Self-build and custom housebuilding (as defined by the Self-build and Custom Housebuilding Act 2015, as amended by the Housing and Planning Act 2016) covers a wide spectrum, from projects where individuals are involved in building or managing the construction of their home from

²⁸ As suggested in consultation responses and used in the 2019 net gain impact assessment

beginning to end, to projects where individuals commission their home, making key design and layout decisions, but the home is built ready for occupation ('turnkey')

This exemption would mean biodiversity net gain would not apply to such custom plots. The resulting cost implication of implementing this exemption would be the loss of biodiversity that would otherwise have been achieved under the do-nothing.

Although the exemption for self/custom builds applies only to those that are no more than 9 dwellings, carried out on a site which has an area no larger than 0.5 hectares and consists exclusively of dwellings that are self-build or custom house builds, the lack of available data on the number of self/custom builds that specifically meet the criteria for the exemption means the assessment considers all custom/self builds as exempt. Therefore, the costs and benefits of the exemption are an upper bound.

Between 31 October 2020 and 30 October 2021, data reported by local authorities shows 8,309 planning permissions were granted for serviced plots suitable for self and custom build²⁹. For simplicity and because of the volatility in the numbers granted historically, this is assumed to be static year-upon-year (due to difficulties in ascertaining a linear trend) and is later tested in sensitivity analysis. The average self-build home is 268m² (as per the National Custom and Self Build Association Custom and Self Build Market Report. ³⁰).

To derive the loss of natural capital:

- The total number of builds are assumed at 8,309 per year over the appraisal period, except for 2023 where only 1,385 are assumed (this scales the figure of 8309 to account for BNG being operation for only 2 months of 2023).
- Using the average size of self-build, this helps to calculate the total area that these builds will cover each year
- The same hectarages are lost each year for which the costs of the losses accumulate year-upon-year. This is then multiplied by the average value of natural capital to retrieve a total estimated discounted cost of £167.2m over the appraisal period, as shown in Table 8 below.

Table 8. Costs of exemption 5

Costs	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Year	0	1	2	3	4	5	6	7	8	9	
Total builds	1,385	8,309	8,309	8,309	8,309	8,309	8,309	8,309	8,309	8,309	76,166
Total builds in hectares	37	260	482	705	928	1151	1373	1596	1819	2041	10,392
Hectares accounting for net gain	41	286	531	776	1021	1266	1511	1755	2000	2245	11,431
Total losses to nature (£m, undiscounted)	0.7	5.2	9.6	14.0	18.5	22.9	27.3	31.8	36.2	40.6	207
Total losses to nature (£m, discounted)	0.7	5.0	9.0	12.7	16.1	19.3	22.2	25.0	27.5	29.8	167.2

Benefits:

Cost saving for business:

As a result of exempting self/custom builds, the result is that businesses would not have to deliver net gain for these properties, and this represents a total discounted benefit of £60.4m over the appraisal period.

This is derived as follows:

²⁹ [Self-build and custom housebuilding data: 2016 to 2020-21 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/self-build-and-custom-housebuilding-data-2016-to-2020-21)

³⁰ [Why Self Build Homes are Best: UK's Biggest Self Build & Custom Build Survey - Build It \(self-build.co.uk\)](https://www.self-build.co.uk/why-self-build-homes-are-best-uk-s-biggest-self-build-custom-build-survey-build-it/)

- Using the above methodology of costs, based on 75% onsite and 25% offsite delivery³¹ along with the respective costs of onsite and offsite delivery, the annual average cost of onsite delivery of net gain would be £4.3m and £3.4m for offsite units (undiscounted)
- The theoretical cost that would have been incurred under the baseline to deliver net gain is equivalent to the benefit (i.e. cost saving) to business each year as a result of this exemption. This is discounted and summed across the appraisal period.

Summary of option 1

Table 9 summarises the key ongoing estimated costs and benefits of each of the six proposed exemptions.

Table 9. Summarised estimated costs/benefits of exemptions

Exemption	Costs (total discounted over 10 years, in 2023 prices, 2023 PV)	Benefits (total discounted over 10 years, in 2023 prices, 2023 PV)	Contribution to NPV
One-off implications	Familiarisation cost to business of £0.72m	N/A	0.2%
	Not quantified	Not quantified	N/A
2	Not quantified	Not quantified	N/A
3	£280.1m	£75.0m over 10 years	39.7%
			-2.9% ³²
4	£320.2m	£115.6m over 10 years	39.5%
5	£167.2m	£60.4m over 10 years	20.6%
Totals	£768.4m (2023 prices, 2023 PV)	£251.1m (2023 prices, 2023 PV)	
NPV	-£517.3m		
BCR	0.33		

As shown in the table above, the greatest contribution to the negative net present value is from exemptions 3 (householder applications), 4 (net gain on net gain sites) and 5 (custom/self builds)

This may represent an overestimate for the following reasons:

- Exemption 3 uses average natural capital value of habitat across all English regions (£18,088) to assess the environmental cost of exempting householder applications. Extensions will be delivered on lawn/habitats which may not be the most biodiverse habitats in reality, so the natural capital value may be less. This is tested in sensitivity analysis.
- Exemption 4 may not actually lead to an overall cost to society, but it was never the intention of primary legislation to allow the delivery of net gain again on sites exclusively built to deliver net gain.
- Exemption 5 may lead to reduced costs because the lack of available data on the number of self/custom builds that specifically meet the criteria for the exemption means the

³¹ This follows from an earlier consultation impact assessment where Defra assumed 75% of net gain would be delivered onsite – this was not challenged in consultation responses and was supported anecdotally.

³² The negative % contribution to the overall net present value is due to exemption 4 having a net benefit for society, unlike all other quantified exemptions

assessment considers all custom/self builds as exempt, thereby overstating the impact of the exemption.

Overall, combining all 6 exemptions together (based on the costs and benefits which have been monetised), the total estimated discounted cost of the exemptions is £768.4m over 10 years, the total discounted estimated benefit is £265.6m, the net present value is **-£517.3m**, and the benefit to cost ratio is 0.33:1.

Whilst the exemptions deliver a net cost to society, as has been assessed, it's important to reframe these net losses in the context of BNG under primary legislation because these exemptions are not a 'stand-alone' policy.

The exemptions deliver costs (losses to nature) and benefits (cost savings in terms of policy delivery). The following cost benefit profile is established when only considering the impact of secondary legislation:

Table 10. Exemptions cost/benefit profile (2023 prices, 2023 PV)

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Year		0	1	2	3	4	5	6	7	8	9	
Discounted costs		4.1	22.9	41.1	58.1	73.9	88.5	102.0	114.6	126.2	136.8	768.2
Total discounted benefits		5.4	31.2	30.1	29.1	28.1	27.2	26.3	25.4	24.5	23.7	251.1
										NPV		-517.2
										BCR		0.3

BNG imposes costs (of delivering net gain primarily incurred by developers) and creates benefits (to society from the creation of habitat) and the following cost/benefit profile was established:

Table 11. BNG cost/benefit profile (2023 prices, 2023 PV)

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Year	0	1	2	3	4	5	6	7	8	9	
Total costs of policy (£m, discounted)	-72	-378	-365	-353	-341	-330	-318	-308	-297	-287	-3,050
Total benefits of policy (£m, discounted)	50	341	613	865	1,100	1,318	1,520	1,706	1,879	2,038	11,430
										NPV	8,380
										BCR	3.75

This is an update of the earlier 2019 net gain impact assessment taking into account 2023 prices.

It's important to note that these exemptions were not explicitly modelled in the 2019 net gain IA (i.e. the earlier impact assessment does not include the stream of benefits from the delivery of net gain for householder applications, net gain upon net gain or self-builds and the associated costs of doing so). Thus, the exemptions are reducing a bigger stream of benefits that would have otherwise been enjoyed. When this is incorporated, the impact is as follows:

Table 12. Assessing exemptions within context of wider biodiversity net gain policy

	Discounted 10 year benefits (£m)
Total BNG benefits over 10 years	£12,198.6
Impact of exemptions over 10 years	-£768.4
Updated benefits (uprated from 2019 net gain IA) over 10 years	£11,430.2
% change in benefits	-6.30%
	Discounted 10 year costs
Total BNG costs over 10 years	-£3,300.9
Impact of exemptions over 10 years	£251.1
Updated costs (uprated from 2019 net gain IA)	-£3,049.8
% change in costs	-7.61

When considering secondary legislation, the exemptions reduce the overall benefits of BNG by 6.30% but reduces the costs of delivering the policy by 7.61%³³. Thus, whilst the benefit-to-cost ratio of the original BNG policy is calculated to be 3.75, as a result of the exemptions the benefit-to-cost ratio improves to 3.81 because the loss of ecosystem benefits is outweighed by the cost savings delivered by the exemptions.

Direct costs and benefits to business calculations

With BNG under primary legislation, the costs primarily accrue to the developers in delivering net gain whereas the benefits from habitat creation accrue to society.

As a result of the implementation of exemptions, there is a small familiarisation cost to understand the exemptions, but the primary aim is to avoid disproportionate burdens on minor developments and the risk of unclear policy leading to an increased cost to business and reduced compliance. The primary benefit of these exemptions is the reduced cost of delivering net gain. Exemptions help to mitigate against undue burden in the delivery of biodiversity net gain where it is inefficient, impractical or disproportionate to do so. However, it must be noted that the exemption to householder applications means the cost saving does not accrue to business, but rather to households/society/the taxpayer.

- When updating the 2019 net gain IA, the costs to developers to deliver BNG were a total of £2943.7m discounted over 10 years (in 2023 prices, 2023 present value).
- As a result of the exemptions, there is a familiarisation cost of £0.72m to business but there is an ongoing discounted cost saving of £251.1m over 10 years. This means that overall there is a £175.3m benefit to businesses over the appraisal period (discounted). Not all cost savings from the exemptions in totality will accrue to business because exemptions to householder applications affect homeowners. As noted, the costs of delivering the interventions (that are not exempt in secondary legislation) were not included in the 2019 net gain IA.
- Thus, total costs would have been £3119.0. After implementing exemptions, the total discounted costs to developers to deliver BNG are £2943.7m over 10 years.
- This represents a percentage cost saving to developers of 6.0%, thereby reducing the cost burden to business in delivering BNG.

Applying the methodology for assessing business impacts gives a business impact target (BIT) score of -79.9 and an equivalent annual net direct cost to business (EANDCB) of -£16.0m (2019 prices, 2020 present value).

Risks, assumptions and sensitivity analysis

Risks:

Assumptions in the cost benefit analysis, which enables outputs to be quantified, means that the insights provided come with risks attached. Where possible the more conservative assumption was taken, which means these risks are implicit in the outputs. Some of these risks are as follows:

- For exemption 1 (a temporary exemption to minor developments), difficulty in understanding the proportion of land use change driven by minor developments means the associated costs and benefits of this temporary exemption cannot be quantified
- For exemption 2 (an exemption for developments containing habitat areas below a 'de minimis' threshold), the number of developments with habitat below de-minimis threshold is uncertain. This is difficult to assess quantitatively due to the lack of evidence in order to appraise the associated costs and benefits of the exemption

³³ Although in monetary terms the loss in benefits is 3 times the cost saving, as a result of the exemptions

- For exemption 3 (to disapply BNG to householder applications), the size of extension is based on third party data
- For exemption 4 (exempting the delivery of net gain upon net gain sites), the proportion of offsite gain sites that then require their own planning permission is unknown, but is currently assumed to be 10%, based on subject matter expert opinion
- For exemption 5 (exemptions for self-build or custom build development), the analysis assumes all custom/self builds are exempt owing to difficulty in ascertaining the proportion of custom/self builds that specifically meet the criteria of the exemption.

Some of the most pertinent analytical risks are therefore tested in sensitivity analysis below.

All policy delivery faces risks, and this policy is no different. The biggest risk is the timings by which the statutory instruments are laid. Defra intend to publish the instruments in May 2023 to give six months for agents, such as developers, to understand and get used to the exemptions before the delivery of net gain is made mandatory from November 2023.

Assumptions:

The analysis of the costs assume:

- All householder applications will have an impact on site area and thus, an impact on biodiversity. In reality, some types (such as a loft conversion) are unlikely to impact biodiversity.
- The loss of biodiversity is measured in terms of the impact on house prices and does not reflect wider non-use values
- The loss of biodiversity is worth £18,088 per hectare on average across all English regions, mirroring the approach used to value benefits in the 2019 net gain IA.
- Developers require no more than 50 minutes to familiarise with the exemptions

The analysis of the benefits assume:

- 10% net gain is delivered in the baseline.
- 1 hectare is equivalent to 2.5 units. The biodiversity metric is used to assess the biodiversity unit value of an area of land and this is captured through 'units'. Biodiversity units are calculated using the size of the habitat, its quality and location
- Cost of onsite delivery of £23,515 per hectare.
- The price of offsite biodiversity units in the market is £22,514 per unit based on Defra's interpretation of Eftec analysis of the biodiversity unit market³³.
- 75% onsite and 25% offsite delivery)

Sensitivity analysis:

The following section assesses the impact on costs and benefits of factors that are more pertinent to change.

Table 13. Sensitivity analysis

Assumption being tested (keeping all other factors fixed)	Low variable	Central variable	High variable	Low NPV estimate (% change in NPV)	Central NPV estimate	High NPV estimate (% change in NPV)
Number of householder	167,266	186,581	205,895	-£524.0m (-4.4%)	-£502.8m	-£481.6m (+4.0%)

applications annually						
Size of extension	10m ²	20m ²	30m ²	-£605.4m (-20.6%)	-£502.8m	-£400.3m (+20.2%)
Proportion of offsite areas requiring net gain	5%	10%	15%	-£605.1m (-20.6%)	-£502.8m	-£400.5m (+20.2%)
Cost of onsite delivery of net gain under the TCPA	N/A	£23,515 per hectare	£35,273 per hectare	N/A	-£502.8m	-£416.3m (+17.2%)
Number of self-builds per year	7727	8309	8891	-£510.3m (-1.7%)	-£502.8m	-£495.3m (+1.3%)
Loss of natural capital per hectare for householder applications	£9044 (per hectare)	£18,088 (per hectare)	N/A	N/A	-£502.8m	-£362.7m (+27.7%)
Loss of natural capital per hectare (excluding London)	£7031 (per hectare)	£18,088 (per hectare)	N/A	N/A	-£502.8m	-£204.9m (+59.2%)

Number of householder applications:

The central analysis assumes 186,581 householder applications per year over the appraisal period based on the average over the last 10 years. However, this may vary (for example, by one standard deviation from the mean).

Thus, in a high NPV scenario, approx. 167,000 applications will be granted per year. The fewer applications that are granted, the fewer number of homes that would be exempt and therefore the lower the loss of biodiversity. However, the benefits (associated with the cost saving to business) also fall because the fewer granted applications, there are fewer cost savings realised from not delivering net gain. Overall, this causes a rise in net present value of approximately £21.2m because the fall in costs outweighs the fall in benefits.

In a low NPV scenario, with a greater number of householder applications being granted, there will be more development leading to the larger loss of nature. Thus, costs (from the loss in nature) will rise. However, the benefits also rise because more developments of this nature mean greater savings from not having to deliver net gain for businesses relative to the do-nothing. This reduces the NPV by approximately £21.2m because the increase in costs outweighs the rise in benefits.

It is difficult to say if the low, central or high sensitivity is more likely. Applications granted have been relatively similar since 2012 with a significant jump from 2020 to 2021. This may perhaps be associated with a rise in home working³⁴ and the need for household extensions to accommodate for office space. Therefore, assuming this continues, it may be the case that the low NPV scenario (with a greater number of household applications) is more probable which may worsen the NPV compared to the central estimates in this analysis.

Average size extension:

There exists no reliable data on the average size of householder developments (extensions). Figures used (from a third party source) cannot necessarily be verified. As such, this is a key uncertainty which also drives the costs and benefits.

As currently assumed, the average size extension is 20m². When assuming a lower size of extension, the losses to nature fall (because there is a smaller loss of biodiversity) but the benefits also fall because there is a smaller cost saving to business from not having to deliver net gain. Because the losses to nature decline by more than the cost saving to business, this causes the NPV to rise by £102.5m over the appraisal period. However, when the average extension size is increased, the damage from biodiversity loss is higher but also the benefits from reduced costs to business also increase, which causes the NPV to fall by £102.6m over the appraisal period.

Proportion of offsite areas requiring net gain:

The analysis currently appraises the costs and benefits assuming 10% of offsite units would have required planning permission and the delivery of net gain (upon net gain). This is highly uncertain and has been derived from a subject matter expert opinion.

When assuming a lower proportion of offsite units needing planning permission at 5%, fewer developments would be exempt, thereby mitigating losses to nature whilst imposing more costs to business relative to at 10%. This causes the NPV to improve by £102.3m over the appraisal period.

Cost of onsite delivery of net gain under the TCPA

As noted in this assessment, the cost of onsite delivery can vary significantly depending on the complexity and type of habitat being restored onsite, making it difficult to universally calculate an “average” cost of onsite delivery.

Thus, when assuming a 50% higher cost of onsite delivery than in the central scenario at approximately £35,300 per hectare compared to the central case of £23,500 per hectare, an exemption delivers a significantly larger cost saving. Hence, the net present value would improve by 17.2%.

Rate of custom and self-build:

The number planning permissions for serviced plots suitable for self and custom build that have been granted does not follow a linear pathway, going from 8692 in 2017 to a peak of 10,210 by 2019, declining to 7750 by October 2020 before increasing again by October 2021 by 7%. Thus, the analysis in this assessment assumes a static number of custom and self-builds per year. In a high scenario, it is assumed that 7% more applications are granted which causes the NPV to fall

³⁴ [Is hybrid working here to stay? - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk)

by £7.5m over the appraisal period (by 1.7%) because the losses in natural capital outweigh the cost saving to business. Conversely, if one assumes 7% fewer applications, this causes the NPV to improve by 1.3% over the appraisal period. The likelihood of the low, central or high NPV estimate being realised depends on the extent to which there are fewer or more applications- this may be dependent on factors such as economic growth and planning regulations associated with the ease of allowing more custom/self-builds.

Loss of natural capital per hectare for householder applications

As acknowledged, extensions will sometimes be carried out on habitat that is of low significance (e.g. on some lawn or patio), which in turn means these are habitat layers of low value. This means the loss in nature of £280.1m over 10 years (valued based on the loss of £18,088 per hectare) may be an overestimate. It is difficult to say with any degree of accuracy of the benefits value that can be attached per hectare of habitats such as lawn. As an illustrative example, a 50% reduction is used- when considering the effects on costs/benefits using a value of £9044 per hectare, the NPV rises by approximately £140.1m over 10 years. This does illustrate an important point that the size of the losses to nature (and therefore the size of NPV) is dependent on the crucial value used to determine habitat creation per hectare. On patio/lawn, the value will likely be significantly lower than £18,088 per hectare but cannot be backed definitively by evidence.

Loss of natural capital per hectare (excluding London)

As contained in this assessment, the regional natural capital value of 1ha of matured habitat is derived from the ONS ecosystem accounts for urban areas, which values green space within 100m of a residence as £4,800 per residence on average, using a hedonic pricing method. This was used to estimate the regional value of habitat in hectares, which varied between £3000 and £89,000 depending on the region. The value is highest in London given the population density per hectare.

It is not understood spatially where these exemptions will be delivered and in turn where in England the losses of natural capital occur, as proxied by this measure. This assessment uses a simple average for the regional value of habitat across the 9 English regions. Given London's value is significantly larger than all other regions, the sensitivity analysis shows that when excluding London from the results, the NPV improves by 59.2%, thereby demonstrating the importance of this parameter in calculating overall costs and benefits.

Combining all of these low variable sensitivities and all of the high variable sensitivities provides a high NPV of -£24.2m and a low of -£619.8m (in 2023 prices, 2023 present value)³⁵ respectively, suggesting that even at the lower end of sensitivities, this suite of exemptions will deliver an overall net cost to society. However, in the context of the overall BNG policy, this is a small reduction of benefits and is significantly reliant on the cost of onsite delivery and the assumed values for natural capital benefits/losses.

Regulatory exemption assessment by size of business

Impact on small and micro businesses

A small business is defined as one employing fewer than 50 full-time equivalent employees and a micro-business as one employing up to 10 employees. There are 108,260 businesses involved in the development of building projects and construction of domestic/commercial buildings, of which 99.5% are classified as small or micro as of late-2022³⁶.

The impact of the exemptions under the preferred option will vary depending on the size of the:

³⁵ This is not a summation of the sensitivity table due to the interaction of different assumptions

³⁶ <https://www.nomisweb.co.uk/>. ONS data on UK Business Counts - enterprises by industry and employment size band custom tables. 2022 data on "development of building projects"

- Developer: in the absence of the exemptions, new regulations are typically more costly for small businesses to implement compared to medium or large ones; and
- Development: on a per site basis, minor developments (i.e. small sites) have far less impact on habitats compared to major developments. However, minor developments happen frequently enough such that their cumulative impact is not insignificant over time.

There is limited evidence overall on the interaction between size of developer and sites, i.e. smaller businesses may develop on smaller sites and may do so more frequently relative to larger developers who develop on larger sites but are smaller in number (but this cannot be said definitively). As per the 2019 net gain impact assessment, Defra's best estimate is that micro and small developers represent between 10-20% of residential and non-residential development, equivalent to between 1,600 ha and 3,200 ha per year based on development in scope of BNG. This is not insignificant in terms of scale.

As per the 2019 net gain IA, feedback from consultees and industry experts suggests that both minor and major developments should be in scope of the BNG policy. However, Defra recognised the potential disproportionate regulatory burden on small developers or developments. A survey has raised concerns about the disproportionate cost and delay SME house builders report in bringing small scale developments through the planning system.³⁷

The proposed exemptions via secondary legislation should help to mitigate for this because the exemptions help to primarily reduce the costs to business associated with having to deliver net gain. Exemptions are typically targeted at small scale alternations, most of which would be expected to be developed by small and micro business, and therefore SMBs arguably have most to gain from the implementation of the exemptions (i.e. they may enjoy a greater proportion of the cost saving caused by the exemptions).

Impact on medium-sized business

A medium sized business is defined as one employing 50-499 employees. Of the 108,260 businesses involved in the development of building projects and construction of domestic/commercial buildings, only 440 (0.4%) can be classed as medium businesses or larger³⁸.

The proposed exemptions via secondary legislation should help to mitigate for any disproportionate impacts caused by the mandatory delivery of biodiversity net gain. The exemptions help to primarily reduce the costs to business associated with having to deliver net gain. Exemptions are typically targeted at small scale alternations, some of which may be expected to be developed by medium-sized businesses. Thus, the policy exemptions should cover medium-sized businesses. This will not lead to any disproportionate burdens to medium-sized businesses but rather is of benefit to them (cost saving for developers).

Wider impacts

De-minimis threshold

The de minimis threshold applies to the area or length of habitat contained within the development footprint. This may create the incentive to degrade and parcel a bigger portion of land into smaller portions and present it as meeting any de-minimis threshold exemption.

The likelihood of this happening however is small. The development red line must cover all land required for the entire development. Thus, smaller portions of a substantially larger development footprint should be viewed as part of a larger development. This will be at the discretion of the

³⁷ FMB House Builders Survey 2017

³⁸ <https://www.nomisweb.co.uk/>. ONS data on UK Business Counts - enterprises by industry and employment size band custom tables. 2022 data on "development of building projects"

local planning authority. Given developers have to deliver net gain and do not want to see their plans rejected, this minimizes the likelihood of such incentives being realised.

A summary of the potential trade implications of measure

There are no expected trade implications of this measure

Monitoring and Evaluation

An effective monitoring and evaluation strategy will ensure that:

- We can assess whether the statutory instrument has achieved the outcomes sought at a local and national level, as well as the mitigating the impact on developers and local communities
- There is a mechanism for reviewing and improving the implementation of net gain policy

The 2018 net gain consultation proposed that government would introduce monitoring of the quality of delivery on the ground and measures to help ensure that environmental, social and development outcomes are achieved. Many responses to that consultation were clear that robust monitoring, for an appropriate length of time, are key to ensuring effective delivery of net gain³⁹. Current practice on monitoring biodiversity gains is variable across development types and projects. In cases of best practice, biodiversity gains are transparently proposed and recorded, this enabled monitoring to some extent though it is rare that generic habitat compensation (i.e., compensation for habitats other than statutory protected sites or species) is subject to explicit monitoring requirements or guidance. They are, however, sometimes ambiguously proposed in terms of the mitigation's scale or specification which can make it difficult to determine whether the proposed mitigation has been delivered.

Since the 2018 consultation, Natural England and Defra have developed a framework for evaluation and monitoring of biodiversity net gain.

The evaluation framework provides a high level plan for evaluating the extent to which mandatory BNG is:

- implemented successfully (process evaluation);
- achieving its intended outcomes (impact evaluation); and
- proving a cost-effective means of delivering biodiversity gain (value for money evaluation).

The framework was:

- Developed using an iterative process which included a comprehensive literature reviews and stakeholder engagement.
- Overseen by BNG Evaluation Steering Group (members included: NE, Defra policy and evaluation, and DLUHC).
- Subject to independent peer review (incl. Cabinet Office Trial Advice Panel).

The framework:

- takes a developmental approach to evaluation, focusing on learning and adaptation
- identifies a wide range data needs and evaluation methods, both new and existing, quantitative and qualitative (e.g., data collation from BNG monitoring studies, data collection from interviews/field surveys/questionnaires, participatory processes such as stakeholder workshops/evaluation)
- proposes a series of longitudinal case studies to understand change over time
- proposes largely theory-based and quasi-experimental methods incl. contribution analysis, QCA, participatory systems mapping, agent based modelling
- embeds thinking around complexity-appropriate methods and designs

³⁹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819823/net-gain-consult-sum-resp.pdf

- sets out Bronze, Silver and Gold options for evaluation with increasing levels of depth and budget requirements

The most recent consultation on Biodiversity Net Gain Regulations and Implementation (held from January to April 2022) set out further proposals for how monitoring can be facilitated.

In the context of biodiversity net gain, evaluation and monitoring can be considered:

- At a project level – monitoring the design and delivery of onsite and offsite biodiversity net gain outcomes against the proposals made in biodiversity gain plans
- At a policy level – to evaluate how biodiversity net gain is being delivered overall, and to assess whether project level outcomes are cumulatively delivering the intended benefits of the policy (environmental, social, and economic). This will inform any adjustments to the policy and metric over time

Project level monitoring:

It will be the landowner or developer’s responsibility to ensure monitoring and reporting obligations are fulfilled, or adequately delegated to another body (with necessary funding), to the specifications set out in the biodiversity gain plan.

The number of monitoring assessments will depend on the habitat type and extent, but a typical schedule for a medium sized habitat creation project might result in reports for years 2, 5, 10, 20 and 30. The evaluation framework considers at least a 30-year timeframe necessary, to reflect the Environment Act’s requirement that biodiversity secured under BNG is maintained for. Regular cycles of evaluation (five-year cycles of evaluation under the Bronze option with the possibility of shorter cycles under the Silver/Gold options) will provide transparency about process and outcomes as well as opportunities to take stock.

Natural England are working on a standardised process for habitat management and monitoring. Defra will ensure data collection is standardised as far as possible across the register process, biodiversity gain plan, and monitoring reports, whilst avoiding the expectation that these should be lengthy or burdensome documents.

This will likely include the use of data from:

1. A consistent biodiversity metric to capture baseline and proposed habitats
2. Standardised templates for biodiversity gain plans and monitoring reports to enable easier collation of information and lower reporting burdens. These biodiversity gain plans at a local authority level can also help to capture the scale of the two non-monetised exemptions per local authority.
3. A register, or other record, of offsite biodiversity gains

Policy level monitoring:

Several biodiversity net gain mechanisms and wider policies will support the policy-level monitoring of biodiversity net gain outcomes:

- the biodiversity gain site register, which will provide a publicly accessible record of proposed offsite enhancements
- clearer, more standardised, reporting of habitat losses and gains in biodiversity gain plans
- enhancement monitoring and habitat survey data, coordinated by planning authorities, responsible bodies, and local environmental records centres, which can provide data that will indicate the extent of success or failure of particular habitat enhancements
- the annual report on statutory biodiversity credits investment

The exemptions will be monitored using planning data to measure the amount of habitat loss as a result of the exemptions, including the two non-monetised exemptions.

This information, along with information collected through any UK Government commissioned assessment samples undertaken as part of the evaluation and monitoring programme, will help to assess the function of biodiversity net gain policy and the ecological success of various project-level interventions, mitigation proposals and habitat management plans. This may contribute to future guidance on ecological mitigation practice and help to address reported evidence gaps.

It is expected that monitoring will be carried out in regular intervals, at between 3-5 years. The first cycle of review/monitoring must take place no later than November 2028, though could be reviewed sooner.