

DRAFT: Consultation Response to the NPPF: Professor Alister Scott BA PhD MRTPI

I am Professor of Environmental Geography and Planning at Northumbria University, a chartered member of the RTPI and a **knowledge exchange fellow funded by the Natural Environment Research Council (NERC). 2017-2020.** I have over 30 years experience in the built environment sector with successful funding amounting to over £2.5 million from government and research councils, 40 peer review publications and 2 games on spatial planning matters. My interdisciplinary research focus on translating spatial planning theory into improved policy and decision making makes me ideally placed to comment on the efficacy and suitability of the proposed NPPF.

This response forms part of my NERC knowledge exchange project and has **been informed by the views and evidence from 25 members of the Green Infrastructure Partnership with contributions from NERC and UKRI researchers. However, the final content is my sole responsibility and thus represents no single agency view.**

The following themes have been prioritised for significant action and change.

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1. Executive Summary

This consultation response builds on the collective views of 25 built and natural environment professionals who have jointly contributed to this exercise, which forms part of a Natural Environment Research Council project to improve policy and decision-making.

The following changes are seen as critical to ensuring that the NPPF does make significant progress towards sustainable development and deliver the kind of places we need.

- (a) To formally adopt the UN sustainable development goals within the presumption on sustainable development. A stronger definition of sustainable development is needed which recognises the need for integration of economic, social, cultural and environmental components within policies and decisions moving away from the default silo position. Chapter 11 in particular could be used to show this but at present is economically fixated.
- (b) To create a new Planning Principles section that drives the NPPF. The current chapter headings should become part of the core principles to help reader navigation, ideally with chapters on environment, health and climate change given stronger actions in the titles. However, there is also a need for a wider placemaking principle to generate the overall vision of the kind of places the NPPF wants to deliver. Within this the TCPA garden cities principles should be promoted.
- (c) To make the production of local plans mandatory concomitant with the necessary resources in local planning authorities to do this.
- (d) To translate the commitments and aspirations made in the HM Governments (2018) 25 year environment plan explicitly into the NPPF. At present chapter 15 does not reflect the transformational nature of the 25 year plan and its commitment to be the *“first generation to leave that environment in a better state than we found it and pass on to the next generation a natural environment protected and enhanced for the future”*. (p4) Specifically
 - a. Providing new updated NPPG on the natural environment to cater for new terms which also are not defined in the glossary .
 - b. Endorsing a natural capital approach to all developments.
 - c. Making Net biodiversity gains mandatory in all developments.
 - d. Making Net environment gains to be desirable in all building developments.
- (e) Addressing the social and environmental justice agendas explicitly to help target major infrastructure and investment and development into those areas of greatest need. A spatial map/strategy is conspicuous by its absence.
- (f) Ensuring that viability assessments recognise the importance of environmental and social limits as well as delivering satisfactory returns to developers.
- (g) Updating the glossary to capture the environmental language which currently is absent.

2. Delivering Sustainable Development, Placemaking and Core Principles (Chapter 2 and 3): Key Paragraphs 7,8,9,11,20(f) 21, 35

There is a presumption in favour of sustainable development (SD) within England's plan-led system, so by default an approved plan becomes the definition of sustainable development in planning terms.¹ **This is problematic given the lack of reference to a clear and operational definition of SD and the principles to be used in policy and decision-making.**

There is a missed opportunity here to reference explicitly the UN (2015) Sustainable Development goals² and associated indicators. Footnote 4 of the NPPF currently does not convey any sense of importance to these or how they might be used. The UN definition comprises 17 goals, each with targets that can be benchmarked to measure SD progress for plan reviews. Equally they should be used to strengthen and inform both plan making (par 11ab) and decision making aspects (par 11cd). This has renewed potency given the Commons Select Committee report in 2014 into the operation of the NPPF was particularly critical on the delivery of SD. Thus **the explicit adoption of the UN goals for plan making and decision taking would be a positive step forward³.**

The use of SEA (par 35) and concept of net gains (par 8) are useful here to help the integration across the economic, social and environmental issues required for SD but there is an **inherent risk that environmental social and economic net gains are each developed and secured in isolation and simply reinforce the silo mentality (e.g. par 8)**. This seems to be the case in paragraph 11 which repeats the 2012 NPPF for what SD means for both plan making and decision taking components, heavily laced with development-led flavours rather than recognising environmental or social limits/opportunities. **We would recommend explicit mention of limits and capacities as core components of SD in par 11.**

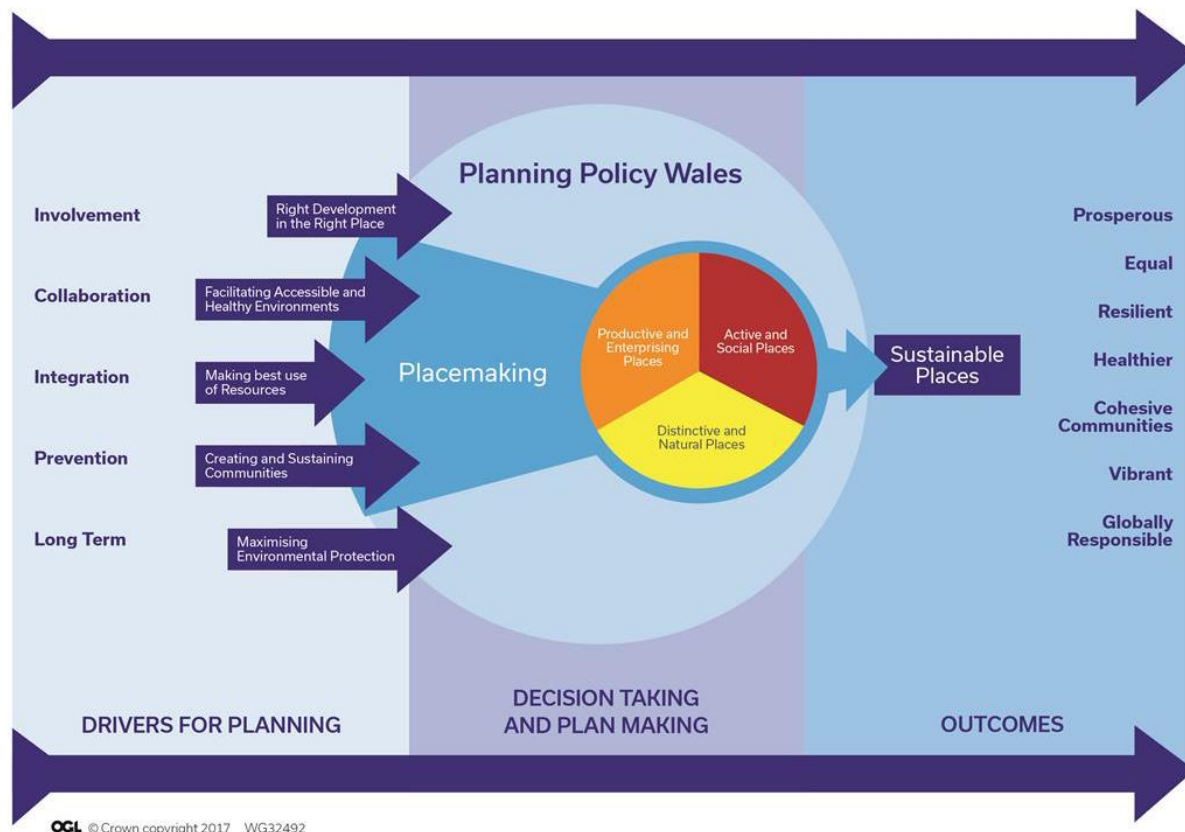
However there is a need to unpack paragraph 11 in a more visionary manner to connect the net gain concepts to SD to established principles of placemaking. A diagram would also be really valuable. **The proposed Planning Policy Wales 10 p24 provides an excellent narrative and diagrams championing placemaking and in our view is an excellent way to boost paragraph 11⁴.**

¹ Adams, D., Scott A.J and Hardman, M. (2014) Guerrilla Warfare in the Planning System: Revolutionary Progress towards Sustainability? *Geografiska Annaler B. Series B, Human Geography* 95 (4): 375–387

² <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

³ <https://www.parliament.uk/planning-policy-framework>

⁴ Planning Policy Wales <https://beta.gov.wales/planning-policy-wales-edition-10-p24>



This starts to generate quality and additionality in plans and decisions moving away from acceptability or minimum standards. **Significantly, the word acceptable features heavily (23 times) throughout the NPPF** which sits uncomfortably with Chapter 12 on achieving good design which reads as a bolt on.

Core Planning Principles.

It is also important that there is a bold vision of what sustainable development means in planning more generally and thus **we argue placemaking should become a stronger ingredient** in the document. This can be strengthened by the inclusion of a section on **core planning principles**. **Therefore we do feel that the removal of the core planning principles is a retrograde step** as these provide, in theory, a strong integrative signpost as to how plans and decision should be approached. The previous NPPF had a long list of principles but then it was difficult to see how they were to be used. **We again commend the PPW core diagram with their drivers providing the steer and an effective replacement.**

However this can be taken one step further with the added inclusion of the TCPA Garden City Principles. These influence how much people will pay for land that might be used to create a new garden city and indeed have much wider applicability for all major developments. If these principles are followed then the developer will have to provide high quality GBI with some funding for a stewardship structure and long-term management. The cost of providing this will be mean that the developer could negotiate down the amount they have to pay for the land. If Garden City Principles are written into national planning policy then the landowner is much more likely to accept this. However, without Garden City Principles the developer will pay more for land, and will be far less likely (or able) to create places with good GBI or long-term stewardship of the GBI.

3. Conserving and enhancing the natural environment. (Chapter 15) Key paragraphs 20 24 27 86 118 168 b, 168 d 169 173ad 178abc 179 163 with cross reference to Chapters 2, 11 and 15

The HM Government (2018) 25YEP⁵ made a number of key recommendations about planning policy which have not been embedded in the proposed NPPF. **Whilst the 25YEP was signed up to by all government departments it would be dangerous to read these proposals alongside and separate to the NPPF without having the necessary clarity of how they fit into the present planning framework and how they are to be taken into account in decision making.** This point is reinforced by the lack of explicit reference to NPPF in the document which leaves matter open to interpretation.

We have identified the key areas of the 25YEP that we feel need explicit recognition and translation into the NPPF.

Social and Environmental Justice

25YEP Page 16 *“A healthier environment also helps deliver social justice and a country that works for everyone. For example, pollution affects us all but it is the most disadvantaged in society who suffer more. ... We want to ensure an equal distribution of environmental benefits, resources and opportunities”*.

However, there is currently no provision or principle/objective for social and environmental justice in the NPPF. By adopting the 2015 UN SDGs as previously discussed and ideally making this a core principle it will enable the **targeted retrofitting of green infrastructure investment into those areas that need it the most.**

Strengthening Statements of Common Ground

25YEP Page 58 *“develop a Nature Recovery Network providing 500,000 hectares of additional wildlife habitat, more effectively linking existing protected sites and landscapes, as well as urban green and blue infrastructure”*.

It is not clear how this links to the NPPF; one opportunity lies in the statements of common ground but as something that should be done (**par 27**) as will apply across all areas and should not be optional. **Thus a footnote should prescribe the core strategic issues which should apply across all areas to include nature recovery networks, green infrastructure networks and climate change.** Delivery of strategic policies for the natural environment, climate change adaptation and green infrastructure (Para 20f) could best be achieved by positive planning for the environment, **through inclusion of a landscape-scale ecological network in the key diagram**, however crucially this is not a policy requirement and should be (Para 24).

Net Environment Gains

25YEP Page 33 *“We will seek to embed a ‘net environmental gain’ principle for development to deliver environmental improvements locally and nationally.*

⁵ HM Government 2018 25 Year Environment Plan <https://www.gov.uk/government/publications/25-year-environment-plan>

25YEP Page 34 *“Making sure that existing requirements for net gain for biodiversity in national planning policy are strengthened, including consulting on whether they should be mandated”* There appears to be no significant difference to the status of net biodiversity gain in the NPPF. We support the 25YEP that this should become a statutory requirement as also Balfour Beatty do to create a level playing field ⁶.

The 2018 NPPF version makes explicit reference to biodiversity and environment net gains which although welcome does not equate to embed. It also encourages the idea of a single net measure of net gain as opposed to gains where the different aspects of environment could be traded off against each other. For example the suggestion that net environmental gain could either be habitat gain, or public access (**Para 118a**) **is unsatisfactory and could result in net biodiversity losses that are considered by developers/planners as net environmental gain. This reference should be removed.**

The concepts of biodiversity and environment net gain are presented as desirable add-ons rather than being required as components of sustainable development. This could lead to poor quality environmental solutions as bolt on rather than embedded from the start of proposals. It is also important to refer to **net environmental gains to move away from a single measure as implied in both the 25 Year Environment Plan and NPPF** with the aim is to have net gains across all the ecosystem services as determined by national and local priorities within the strategic and local/neighbourhood plans. It is here that emerging NERC tools such as the Natural Capital Planning tool⁷ and greening the grey offers some useful intelligence⁸. South Downs National park have also included technical householder guidance to how such gains can be realised in small scale development and this would make excellent additional planning practice guidance⁹.

Natural Capital Approach

25YEP Page 20 *“Over the next 25 years, our policy choices will be better-informed with a natural capital approach”*.

There is no mention of a natural capital approach in the NPPF which only seeks “recognising the value” of natural capital (par 168b) which is necessarily limited and will likely impact negatively on planners/developers priorities devoted towards realising this goal. **Stronger wording such as “should” should be used.** The case for this becomes all the stronger when considering the Industrial Strategy, 25 YEP and NPPF collectively, where natural capital does emerge as an integrating “bridge” and thus we would encourage stronger wording to ensure that natural capital does work harder in planning developments thus supporting GBI and SuDs (par 163). Here explicit alignment with a natural capital approach is important. The natural capital approach needs defining in the glossary but we also urge the development of separate planning guidance to help people understand how it should be undertaken as currently the term is subject to interpretation. Significant research by NERC is being undertaken here to help with this.

Green Blue Infrastructure

The current definition in the NPPF glossary is deficient and is significantly weaker than existing planning guidance. There is a need to explicitly mention blue infrastructure and it may be useful to have the definition in the main text. The current NPPG definition is weakened in the NPPF *“Green*

⁶ Balfour Beatty 2018 A better balance: a roadmap to biodiversity net gain

<https://www.balfourbeatty.com/media/317352/balfour-beatty-a-better-balance-a-roadmap-to-biodiversity-net-gain.pdf>

⁷ <http://ncptool.com/>

⁸ <http://eprints.gla.ac.uk/150672/>

⁹ Copy of SDNPA material available on request.

infrastructure is a network of multifunctional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities. Green infrastructure is not simply an alternative description for conventional open space. As a network it includes parks, open spaces, playing fields, woodlands, but also street trees, allotments and private gardens. It can also include streams, canals and other water bodies and features such as green roofs and walls". Paragraph: 027 Reference ID: 8-027-2160211 Revision date: 11 02 2016

It is important that a **fuller definition is given reflecting that green infrastructure covers blue infrastructure** and to this end we **recommend using the term Green and Blue infrastructure (GBI)** and we would like more stress given to the **critical strategic nature of the green infrastructure network perhaps using a footnote as to what is included/excluded** given the different interpretations that are made in research, policy and practice.

The EU definition of green infrastructure planning as a *"successfully tested tool to provide environmental, economic and social benefits through natural solutions and help reduce dependence on 'grey' infrastructure that is often more expensive to build and maintain"* helps provide a powerful statement as to the **benefits of local authorities identifying and mapping a GBI network. This should be a requirement as part of the duty to cooperate and statements of common ground (par 27/35).**

Here the linkage between natural capital (stocks of environment) and the ecosystem services (the flows of benefits/disbenefits from their use and the delivery (green infrastructure planning) to achieve the net biodiversity and environment/economic and social gains, provides a neat and understandable conceptualisation that might usefully be highlighted.

For GBI there are further opportunities here to link par 169 more explicitly on the strategic value of GI with the statement of common ground (ex duty to cooperate) as a core strategic issue (pars. 27 and 35). Experience with the NPPF 2012 to date has clearly shown the primacy given to housing matters within duty to cooperate considerations almost to the exclusion of other matters. Hence green infrastructure, sustainable water management, biodiversity and climate change should be cited as core strategic issues which do not recognise artificial administrative boundaries.

25YEP Page 77 *Our aim is to improve existing green infrastructure by encouraging more investment while making sure there is a presumption for sustainable development. Initially, we will focus on areas where we know that there is not enough accessible green infrastructure, or that what is there is of poor quality" .*

25YEP Page 77 *"Working with the Ministry of Housing, Communities and Local Government to see how our commitments on green infrastructure can be incorporated into national planning guidance and policy".* The commitments are generally seen as optional when green infrastructure should be seen as critical infrastructure.

There is no provision or policy support for the above aspirations and **Leaving strategic issues such as GBI (par 27) to be determined by each authority again fails on sustainable development criteria and weakens potential integration.** By making it a requirement as outlined above it fits with the DCLG response to the Parks Inquiry (2017) report from the CLG select committee which stated that *"If inspectors find that local authorities haven't appropriately assessed and planned for green infrastructure to meet health and wellbeing needs (alongside other functions of green infrastructure such as urban cooling and sustainable urban drainage), then they would not find the plan 'sound'".*

At present the wording in the NPPF does not really enable this to happen but we argue that this should be the case otherwise reading the desirable and recognising actions will in my view, have serious repercussion in hard pressed planning authorities. The current wording implies that they are extras rather than as integral to development. Crucially in the town centre chapter there is no policy support for the integration of green infrastructure. **In par 86 there should be an added element that recognises the value of GBI and a high quality natural environment. Mature street trees do become extremely important here**

SuDS and Nature Based Solutions

25YEP Page 54 “Amending Planning Practice Guidance to clarify construction and ongoing maintenance arrangements for SuDS in new developments” However, the revised sections of Planning Practice Guidance do not include anything about SuDS. This flags an opportunity to build on SuDs and NERC research here (ProSuDS¹⁰) for RICS on using Suds in developments provides powerful evidence.

Par 163 does not fall within the natural environment section, but this stronger worded SuDs policy is welcome although currently it only applies to major developments. **There is no reason why all Suds schemes could not be made mandatory provided they “were proportionate”. Indeed, many positive cumulative impacts and environmental gains could be secured from smaller scale developments.**¹¹ There is also an opportunity for the NPPF to move away from its focus on flooding towards the wider issue of total water management where the **value of nature based solutions to address floods and drought are championed**¹². Currently nature-based solutions do not feature at all in the NPPF, yet there is a significant international and domestic research effort in this area that can help inform policy and practice¹³. This kind of explicit acknowledgement would undoubtedly boost the provision and uptake of green infrastructure in planning developments (see footnote 10).

Local wildlife and landscape designations.

The protection for landscape and wildlife sites (designated by local authorities) including Local Wildlife Sites and Local landscape designations has now gone in the body of the text or glossary. There is no longer a specific requirement for local authorities to produce policies for the protection of sites locally designated for nature/landscape. **This is significant as these sites can form important parts of the GBI network and have significant natural capital value and can form key components of the nature recovery network as required in the 25YEP. We recommend that these sites should be mentioned explicitly within footnote 7.**

Irreplaceable Habitats and Assets

On a positive note we note stronger provisions and protections for irreplaceable habitats such as ancient woodlands and peatlands (par 173). **However there is confusion over the definition for irreplaceable habitats which is different in the revised NPPF itself** (footnote 7... ancient woodland; aged or veteran trees; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 55); and areas at risk of flooding or coastal change) par 173c only mentions ancient woodlands and par182 refs to heritage assets. In the Annex 2 glossary it is defined thus *“those which could be described as irreplaceable due to the technical difficulty or significant*

¹⁰ Pro SuDs <http://www.port.ac.uk/school-of-civil-engineering-and-surveying/research/providing-realworld-opportunities-for-sustainable-drainage-systems-prosuds/>

¹¹ CIRIA The SuDS manual https://www.ciria.org/Memberships/The_SuDs_Manual_C753_Chapters.aspx

¹² Naturvation <http://www.naturvation.eu/>

¹³ <https://mainstreaminggreeninfrastructure.com/project-page.php?EU-Projectson-Green-Infrastructure>

timescale required for replacement. It includes ancient woodland, blanket bog, limestone pavement and some types of sand dune, saltmarsh, reedbed and heathland. For the specific purpose of paragraph 173c of this Framework it does not include individual aged or veteran trees found outside ancient woodland". **The decoupling of "aged or 'veteran' trees" from the list in Annex 2 is not supported. This all points towards the need for a definitive list of what is deemed irreplaceable.**

4. The removal of local plans as core components of development plans infrastructure: Key paragraphs 11, 17, 18 , 20, 21, 24, 30,

Within the proposed NPPF there is a clear decision to change the nature of the plan-led system by **removing the statutory requirement for a local plan** and only requiring a set of strategic policies as a minimum (par 17). This **could result in considerable confusion across the different areas of planning that are key to the delivery of sustainable development**. We see this as a retrograde step but do feel that having separate tiers of a development plan is useful. **However, the strategic and local components should be core with only neighbourhood plans optional.**

Par18 should be reworded "local policies **must** be produced for inclusion in a local plan, or in a neighbourhood plan prepared by a neighbourhood planning group (a parish or town council, or a neighbourhood forum). This will also impact on wording in par 11 and footnote 5.

Having an optional local plan is highly problematic for SD and placemaking in general and GBI in particular as most of the policy that will create good GBI relates to local plans: eg policy regarding functional local networks of GBI, SuDS, parks, active travel, allotments, green roofs etc. This is all far too detailed for spatial development strategies. Indeed, a recent evaluation of 19 local authority policies for GBI in central Scotland, using a modified version of the building with nature¹⁴ benchmark, has exposed the huge variation in quality of existing policies and proposed a set of model policies which could serve as useful policy guidance to strengthen such policies in line with sustainable development criteria¹⁵.

Furthermore, GBI as a strategic policy may be overlooked as par 20f bolts on GBI as a tool for climate change mitigation and adaptation and protection/enhancement of natural/historic environment. This could best be achieved by positive planning for the environment, through inclusion of a landscape-scale ecological network in the key diagram. However, this is not a policy requirement for Para 24) but should be.

The risk in the proposed arrangements is that, over time, an increasing number of places will have no policy framework for creating GBI within local or neighbourhood plans in operation thus compromising commitments made in the 25YEP.

We strongly recommend that the NPPF changes wording to key paragraphs mentioned above to make the local plan legally required **as a core component of effective spatial planning** but in so doing equally recognise the need to invest in the necessary resources and manpower for local planning authorities to prepare such plans.

¹⁴ Building with Nature <https://www.buildingwithnature.org.uk/>

¹⁵ Central Scotland Green Network Trust (2018) <https://www.gcvgreenetwork.gov.uk/publications/790-gi-policies-in-the-csgn>

5. Making effective use of land (Chapter 11) Key paragraphs 117, 118, 122, 123

This chapter has potential to become a more integrative, positive and visionary; to integrate economic, social and environmental silos. Par 122 represents a key opportunity space; **122 a, c e; GBI should be identified an integral part of such developments.** The case for this is further enhanced by par 123 which talks about making “optimal use” of a given site for housing. **It should be argued here that a core part of optimal use should be the realisation of multiple benefits (118b) including delivering net biodiversity and environmental gains in such developments.** Here the NERC work building with nature¹⁶ standard, natural capital planning tool¹⁷ and greying the green¹⁸ offers over ready tools challenging the current NPPF economic leanings towards optimal use.

We therefore recommend including more explicit signposting of the value of the natural environment in this section including GBI. A rethink and clearer definition of what optimal use of land should cross reference to the UN sustainable development goals and presumption in favour of sustainable development recommendations.

6. Promoting healthy and safe communities. (Chapter 8) Key paragraphs 92, 93 94

The inclusion of this section is welcome but the **use of the word “promoting” downplays the need for a more stronger requirement related to delivery. We recommend changing “promoting” to “delivery.”** In particular the need to address a social justice agenda as reflected in the HM Government 25 year environment plan page 16 “A healthier environment also helps deliver social justice and a country that works for everyone” **There is an opportunity in paragraph 92 within a new d section to address this explicitly; again reinforcing the UNSD goals.**

Paragraphs 93 and 94 also should highlight and make reference to the role of GBI in improving health and well being (for example as shown in the current IWUN¹⁹ and GHIA²⁰ NERC projects and the Valuing Nature Network research²¹). The issue of an ageing society is also apparent in the Industrial Strategy. It also addresses the fact that GBI should be seen as a vital facility and service through provision of parks and open space. Again we argue that there should be closer link up to and explicit cross referencing to the 25 year environment plan (Chapter 3)²². P73 also states “We will scope out how we could connect people more systematically with green space to improve mental health using the natural environment as a resource for preventative and therapeutic purposes”.

¹⁶ Building with nature <https://www.buildingwithnature.org.uk/>

¹⁷ Natural Capital Planning tool <http://ncptool.com/>

¹⁸ Greening the grey <http://eprints.gla.ac.uk/150672/>

¹⁹ <http://iwun.uk/> Improving Well Being through urban nature

²⁰ <https://www.micra.manchester.ac.uk/research/projects-and-groups/ghia/> Green Infrastructure and the Health and Wellbeing Influences on an Ageing Population

²¹ <http://valuing-nature.net/>

²²

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf

Paragraph 94 also makes reference to a high standard of development. This means again that the building with nature standards²³ might be an appropriate verification tool again with cross referencing to the 25 year environment plan.

7. Viability (both NPPF and NPPG sections)

Viability potentially could help connect the economic, social and environmental silos within development applications and strengthen what is meant by sustainable development. **At present core principles such as the precautionary approach, resilience, capacities and thresholds are excluded yet form core components of sustainability and natural capital approach.** By moving away from a sole focus on economic viability we can start to unlock new opportunity spaces.

The move towards viability being undertaken within the strategic plans is both positive and interesting and offers improved potential for social and environmental components associated with net gains to be utilised. However this also needs to be stressed. In so doing they help integrate the tools and mechanism to deliver better quality, more joined up developments that makes more effective use of land and its resources. However, to realise this potential requires a change in culture and a **move way from the sole economic focus of viability assessments that has characterised the 2012 NPPF and the current guidance.**

There is a key issue here associated with mainstreaming of green infrastructure to become embedded in planning policy and for the business case for it to be accepted. HM Government (2018:15) states *“The natural world also underpins our nation’s prosperity and wellbeing. We often talk of being ‘enriched’ by our environment. In recent years we have come to realise that the environment does indeed deliver calculable economic benefits”*.

(par179): “Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement”.

It is our view that to deliver SD viability has to be given a broader remit in keeping with the UN SDGs. The case of air pollution illustrates this point very well with a need to invest in counter measures²⁴. We believe that this will create new pathways for green infrastructure mainstreaming.

8. Green Belt (Chapter 13) Key paragraphs 141 118

There is a separate chapter on **green belts** in the NPPF quite understandably given its significance and sensitivity. The NPPF for the first time, recognises the value that undeveloped land has for the delivery of multiple benefits (118b) which should also be added to the green belt narrative **acknowledging the contribution to GBI networks that green belt makes. Such a linkage will also help the realisation of positive investment into the green belt.** This brings with it an opportunity to highlight the natural capital value of green belt and the multiple benefits that it produces with cross referencing to the natural environment chapter. **As such, green belt necessarily forms an integral part of the critical green infrastructure network.** However, we do not want to confuse the two terms as they have different policy weight but in its current form there is an **inherent risk that green belt is considered separately to GBI and the benefit of landscape-scale and connectivity are lost**

²³ Building with nature <https://www.buildingwithnature.org.uk/>

²⁴

within these policy silos re-emerge. There is value in inserting a footnote to explicitly connect the green belt to the green infrastructure network to the nature recovery network, where appropriate.

9. Glossary :

Green and Blue Infrastructure

the proposed definition for green infrastructure is not seen as satisfactory and does not mention blue; **we have used Green and Blue Infrastructure throughout this response and favour the explicit incorporation of blue.**

The current NPPG definition “ Green infrastructure is a network of multifunctional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.

Green infrastructure is not simply an alternative description for conventional open space. As a **(critical²⁵)** network it includes parks, open spaces, playing fields, woodlands, but also street trees, allotments and private gardens²⁶. It can also include streams, canals and other water bodies and features such as green roofs and walls”. Paragraph: 027 Reference ID: 8-027-2160211 Revision date: 11 02 2016

It is important that a full definition is given as to what is included/excluded given the different interpretations that are made around GBI. There is a significant amount of new research highlighting the value of gardens for delivery of GBI for example

The following EU definition is recommended for use ²⁷.

“Green infrastructure is a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation. This network of green (land) and blue (water) spaces can improve environmental conditions and therefore citizens' health and quality of life. It also supports a green economy, creates job opportunities and enhances biodiversity”.

Net environmental gain(s)

There is no formally agreed definition for net environmental gain; we argue that there should not be due to issues of providing one net measure of environment across the different ecosystem services involved. Rather there should be a definition of **net environmental gains** “where development leaves the environment in a better state than before in line with the environmental priorities identified in the strategic and local plans”. This is important in helping ensure that the environmental priorities are secured in developments rather than allowing developers to trade off the ecosystem services that they want.

²⁵ This is our addition.

²⁶ The importance of gardens has been highlighted in the NERC projects IWUN <http://iwun.uk/> and also My Back Yard <https://www2.mmu.ac.uk/environmental-science-research/urban-environments-research-group/research-themes/projects/my-back-yard.php>

²⁷ http://ec.europa.eu/environment/nature/ecosystems/index_en.htm

Net biodiversity gain

Biodiversity Net Gain is development that leaves biodiversity in a better state than before. It is also an approach where developers work with local governments, wildlife groups, land owners and other stakeholders in order to support their priorities for nature conservation.²⁸

Natural Capital

“Natural capital” refers to the living and nonliving components of ecosystems—other than people and what they manufacture—that contribute to the generation of goods and services of value for people”²⁹

Ecosystem services.

Ecosystem services are the benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fiber; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling. (MEA, 2005)³⁰

Linkages between Natural Capital -Ecosystem Services and Green and Blue Infrastructure

There may be some value in the glossary indicating the relationship between different environmental terms which are intimately. So in simple terms natural capital provides the stocks of nature from which flows of ecosystem services are generated and where green and blue infrastructure is the delivery mechanism to secure multiple benefits and nature based solutions.

9 The relationship between NPPF and NPPG (Chapter 1)

The revised NPPF needs to spell out more clearly the nature of the relationship with guidance (NPPG). There are a lot of new concepts and language in the NPPF which will require significant updating of NPPG. Note how many terms are not even defined in the Glossary. As ever the devil lies in the detail and whilst there is new viability guidance included in the consultation, which is welcome, other new areas of policy such as environment net gains, natural capital approach and how to use the UN sustainable development goals in policy and decision making should also have detailed guidance to accompany their inclusion in the NPPF. Crucially all new guidance should be subject to consultation given its importance in planning decision making. The current way that new guidance can be added without consultation and in an ad hoc way is seen as problematic given its importance in planning policy and decision making. We recommend including a statement confirming the need “normally for a period of consultation for new NPPG material at 6 monthly intervals”.

²⁸ CIEEM et al Biodiversity Net Gain Good practice principles for development

https://www.cieem.net/data/files/Publications/Biodiversity_Net_Gain_Principles.pdf

²⁹ Guerry et al 2015 Natural capital and ecosystem services informing decisions: From promise to practice, *PNAS* 112 (24) 7348-7355

³⁰ Millennium Ecosystem Assessment (MEA) (2005) *Ecosystems and Human Well-Being: Current State and Trends*. Washington, DC: World Resource Institute.