Resilience through BNG? What have we learned – a two-year review

Chair: Tracy Whitfield, Technical & Research Manager, Landscape Institute

Why did we want BNG, what has it delivered and what have we learned and what is the future?
Nick White, Principal Adviser – Net Gain, Natural England

What do we know about tree species and their biodiversity value?
Andy Hirons, Director, Urban Plant Lab and a Senior Lecturer in Arboriculture and Urban Forestry at University Centre Myerscough

Has BNG increased development value? Is BNG good for development?
Neil Beamsley, Head of Nature and Biodiversity, Bellway

Partners: Chartered Institute of Ecology and Environmental Management, Institute of Chartered Foresters Landscape Institute, Town and Country Planning Association/Green Infrastructure Partnership

NB: All recordings and presentations are on the TDAG website along with the information and links form the chat. https://www.tdag.org.uk/past-events.html

QUESTIONS, COMMENTS AND REFERENCES

Has TDAG tried to have these monthly meetings for ISA CEU?

- John Parker, the head of the Arboricultural Association, is the good person to ask for details. The ISA CEU will incentivize certified arborists to attend sessions live for learning. And usually, it's free to apply.

"Too much greenwashing!":

- It may be that offsetting outside of a borough boundary is a difficult sell where LPAs are not registered as Habitat Banks and so questions the compensatory element of BNG in respect to the NPPF Mitigation Hierarchy
- I doubt the value of piles of rocks and wood. It' s the absence of 'design'. UI also question inclusion of bat and bird boxes and bee brick if the range and feeding habitat is not provided.
- I disagree with 'feeding birds' and the whole industry which is really industrialised domestication of wild birds. Provide the habitat!
- As a landscape architect I have a big problem with the ubiquitous random messy piles of rocks and logs dumped into just about any scheme .All well and good in

a naturalised area but WRONG in a high quality urban context e.g. hotels, corporate developments, housing.

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Are there any proportionate figures for how much developers are delivering BNG on-site, off-site or buying credits?

What might happen at the end of 30 years and how are the 30 year contracts going to be managed/enforced?

- Managed and enforced by legal agreement via planning obligation for the 30 years, however LPAs should be conscious about successive applications or scheme amendments
- I know there will be habitat management and maintenance plans for sites with audit years dictated by scheme types but what will audits consist of? Will the approach be standardised? Will audits be delivered by independent or registered consultants and what will be the expected costs to landowners?
- May be subject to a new planning permission, however sufficient growth and a proactive approach can be applied through TPOing tree planting plans in line with s.197 of the Town and Country Planning Act

Comment: Glad to hear that benefits are starting to be realised, but I have to say this is not really chiming with my experience (LG Ecologist)

A Nature Restoration Fund was mentioned in the P&I Bill earlier this year. I vaguely recall that it wouldn't stand on the toes of BNG, but is there any clear guidance on how the NRF will function and in particular how it will work alongside BNG? E.g. will developers have to do both etc.

- To add to this point, are there any other implications from the P & I Bill?

Honest comment here: I'm not sure BNG is a "team sport". It is very difficult to give sound arboricultural advice in relation to BNG. We can recommend sound advice with regards to tree retention, tree replacements, tree removals etc. But in a large number of cases we've worked on, any arboricultural advice is discarded leading to the retention of poor trees, removal of good trees to be replaced with landscape items that are "better" for BNG, and very poor tree replanting strategies that are leading to large numbers of failures and inappropriate trees for the sites.

- A mixed bag in this regard down here but that is hugely affected by the canopy cover requirement that is now policy.
- This is so true, we have combined BS5837 and UK habs assessment questions to cover both at the same time. It is quite clear to me that BNG is going to drive the retention of the wrong trees. An A cat non-native tree, with a long useful lifespan with no faults scores poorly, whereas a rubbish C/U cat ash tree scores very highly!
- London Plan G7 and local plans usually capture this as there needs to be sufficient reasoning for removal of Cat A and B trees (in London)

- Do these tree categories assess the ecology value of tree or just potential life span and safety aspects?
- Is this for 5837? This issue is being argued currently in the review
- Life span is one part, but trees are categorised in relation to landscape, tree quality and ecological factors.
- I do often see the 'degraded' quality trees (as per 5837) as being those of greater ecological value, so I don't allow their immediate dismissal as a constraint.
- It's the amenity value so more than just life span and 'safety' & may include some recognition of ecological value, especially with veteran trees.
- This is down to how local plan policy /London Plan is worded. Trees are both a material consideration and potential constraint, even Cat C is a retention category. The planning balance assessment will consider tree retention/removal proposals. Ideally at pre-app stage
- An LPA is duty bound under s.198 to preserve amenity and (in Cons. Areas) s.72 to the character and setting of the Cons. Area. TPOs can be undertaken at any time and maybe, should
- The issue is that BNG has legal backing, as opposed to "just" being a planning issue. Therefore. the clients (encouraged by LPAs in many instances) will favour BNG recommendations regardless of any Arboricultural advice.
- I have noted that feasible elements of plans are increasingly coming forward as Permitted Development leading to a significant unaccounted / untracked loss. Is there are proposal to aggregate this in a report towards EIP reporting?
- I have noted that feasible elements of plans are increasingly coming forward as PD leading to a significant unaccounted / untracked loss. Is there are proposal to aggregate this in a report towards EIP reporting?
- Agree re BNG/tree conflicts - also BNG landscape and visual mitigation conflicts - and places for people BNG conflicts.
- Noticed that arboriculturists weren't listed amongst the Team players of BNG

- Tree retention and planting must consider climate change resilience. This means non- natives.
- I don't think that it compromises sound arboricultural advice. It shouldn't. I think that we need to be conscious of overstating the importance of native trees in urban areas, particularly in respect of species diversity and planting for resilience
- https://www.tdag.org.uk/tree-species-selection-for-green-infrastructure.html
    - I use it regularly, great to a such a well-researched reference for species selection
    - Yes, we use this often too - it is a fantastic resource
- *Future Climate Suitability of London's Public Realm Trees* https://www.london.gov.uk/media/110943/download

- It absolutely shouldn't compromise arb advice! I'm sure it will even itself out over time. The native trees is a very important one - it seems very difficult at the moment to persuade people that anything other than a native tree will be suitable, even as the climate changes.

- At Southwark we would look to preserve the native nature of our ancient woodland and protect a wind pollinator buffer zone from non-natives but in a distinct urban environment we would encourage developers to focus on true diversity in accordance with the 10/20/30 rule. Also preserving high amenity trees throughout (regardless) - except maybe for Ailanthus, obvs.
- It's sad to read these experiences as clearly, they are quite common. I feel the balance is wrong at present. For example, on a site zoned for woodland on magic.gov, and where there re areas of lowland heathy woodlands that was what is surrounding, on geology ideal of lowland heathy woodland, the BNG advice was to create a wild flower meadow - nice, but rather hard to blend a paragraph 84 house into , even when it has a turf roof. The rational was that whilst lowland heath scores well it is marked down as being too difficult to achieve. Yet there are ten year examples where this has been done on the same geology. Its learning curve, but the accountancy side of BNG does seem to make other design/planning aim harder to achieve

Question - the importance of connectivity - LNRS, Green Infrastructure Framework etc…is this happening on the ground i.e. are habitat banks integrating with nature recovery strategies etc?

Will there be any amendments to the scheme that will allow local authorities to carry out flood alleviation schemes on third party land without having to commit to 30 years BNG. Currently this is a disincentive to improve land to benefit many.

What is the view of government and developers of BNG? Is it more of a blocker than bats or snails?

Is the Govt any nearer to closing the retrospective development loophole?

Given the downward graph of nature loss shown early on there, I am deeply sceptical that MORE development is the only way to double nature i.e. business as usual. What are the penalties when BNG is not delivered? If enforcement is weak (and our regulatory bodies are far weaker now than they have been) then it's all for nothing, isn't it?

- Biodiversity Net Gain and Planning Enforcement - a conundrum

Why was BNG for NSIPs postponed from November 25 to May 26 and is it at risk?

I'm stealing 'agnostic to geographical origin'…something I've tried to push for some time.

Is species biodiversity value something that could be applied to planting plans, especially in public realm projects? for example different habitat credits for pollinator plants? or plants with winter interest for birds etc, as at the moment we just put ornamental shrub in for planted beds.

Whilst I can understand the value of looking at the 'value' of trees in this way, do you contextualise where this should be applied? For instance, for street trees, ideal size may not be the largest, resilience to salt/pollution is vital, fruiting is contentious etc.

- Yes, right tree, right place, in the 'right soil environment' subject to the 'right' maintenance and management
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Very well said Andrew on the ever changing planet over time and what is native now and what will be native for the future - I am an amateur Palaeontologist as well as an arboriculturist and I find the plant fossils from our past so I can see how plants have evolved and what was native in UK in past time periods and our climate is clearly on the change now. Thanks.

Of the 21 trees to be planted , 10 are in the family Betulaceae, 4 are Cornaceae, 5 Fabiaceae and 2 Rosaceae. 11 of which are multistems.

- In order to meet species diversity for an urban forest population that should include no more than 10% of any one species, 20% of any one genus, or 30% of any family, may I suggest instead:

  Betulaceae (6)
  2 x Alnus subcordata STANDARD (Red Alder)
  2 x Carpinus betulis STANDARD (Hornbeam)
  2 x betlua nigra multistem (River Birch)
  Cornaceae (4)
  2 x Cornus mas multistem
  2 x Cornus kousa STANDARD
  Fabiaceae (4)
  2 x Cercis siliquastrum multistem
  2 x laburnum or Laburnocytisus STANDARD
  Rosaceae (5)
  2 x Cratageus crus galli multistem
  2 x Prunus avium ‘plena’ STANDARD
  1 x Malus ‘Evereste’ STANDARD
  Celastraceae (2)
  2 x Euonymus europaeus multistem

Question: Do you think it's time to re-assess trees and stop using the Categorisation A, B, C U?

- S Categories are not a valuation system , CAVAT, Helliwell are
  - C Development proposals should ensure that, wherever possible, existing trees of value are retained.[140] If planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT or another appropriate valuation system. The planting of additional trees should

generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy. London Plan G7

- But are the BS categories what defines decisions?
- I'd like to see that replacement planting/canopy cover be built into the CAVAT
- If it's a 400 year old oak it's a veteran candidate surely - why not a TPO? and the protection that a TPO can absolutely provide in the face of other considerations?
    - Private Members Bill: Iconic Trees and Nature Education Bill - Parliamentary Bills - UK Parliament https://bills.parliament.uk/bills/4045
    - A veteran tree may not be very old, but it has significant decay features, such as branch death and hollowing. These features contribute to its exceptional biodiversity, cultural and heritage value. All ancient trees are veteran trees, but not all veteran trees are ancient.
- I'd like to see that replacement planting/canopy cover be built into the CAVAT

Andy, did you mention that the method favoured selecting for multiple species benefit. Would later iterations look at rarity in associations? Also, management to allow deadwood etc

- From Andy Hirons: This would be a fascinating additional tier of information. If this could be collated, then we could certainly look at it - but it might be best left to local biodiversity action plans.

HI Neil please can you talk about how compliance is enforced and how lack of compliance is penalised? Especially if we are talking of a 30-year period. Many thanks

Note BNG is not just a spreadsheet. It's easy to focus on this element as its one of the most complex and gives the "magic number" but we should be referring back to CIEEM Good Practice Principles of which achieving a measurable gain is just one element.

- https://cieem.net/wp-content/uploads/2019/02/C776a-Biodiversity-net-gain.-Good-practice-principles-for-development.-A-practical-guide-web.pdf

At present, my understanding of BNG is that urban authorities can struggle to retain biodiversity gains because developers purchase units in rural areas. Are there plans to support an urban biodiversity market so units can be generated, registered, and purchased within the city?

- When BNG is off-set, how do we ensure that habitat banks or off-site destinations are linking to Local Nature Recovery Strategies and the GI Framework?
- Croydon's new conservation officer advised that the cost or registering a BNG landbank is a major disincentive, in the thousands, though I've just checked online and it appears to be £639 plus £45 for each referral to it. I don't understand the discrepancy but it is a fact that there are very few landbanks and nearly all in fairly remote areas
- Legal costs and Ecology baseline/HMMP/LPA/RB costs will easily add £50k to these costs….
- Yes, the costs to get to registration are the stinkers

“ Useable spaces, not nature reserves” - exactly!

Neil, how to you integrate the new National SuDS standard into BNG delivery?

I’m not sure I see BNG 'top trumping' arboricultural issues on sites given the duty for LPAs and Developers to have regard for trees in the development process, it’s a matter of firm responses, pointing to your local plan polices and working with planners and the developers openly

Great point about the long life of trees and all that they see over their lifetimes!

Turns “heritage setting” on its head (anthropomorphic perspective)

Not nature reserves per se but humans need nature around them for mental & physical health, humans are part of nature not separate from it

Could BNG consider tree planting in gardens if it came with some form of protection? I'm seeing plans frequently with large open spaces of fenced gardens and not much space for trees in communal spaces. Maybe BNG is missing a trick here?

Tiny forests, just say no!

Agreed, trees provide an identity to the place they grew in… for us they are space-maker / space-shaper besides all the other benefits to wildlife…

Neil do your developments include sustainable rainwater capture to water the community woodlands?

Could BNG consider tree planting in gardens if it came with some form of protection? I'm seeing plans frequently with large open spaces of fenced gardens and not much space for trees in communal spaces. Maybe BNG is missing a trick here?

Consider taking trees out of gardens and put them in the highway and other areas of opportunity as per the NPPF.

Neil, do any of your developments carry Building with Nature award?

My experience of large scale housing developments is badly planted and poorly maintained trees/shrubs/hedging. How do Bellway countenance that? I have yet to see a fully and successfully implemented landscaping scheme. And I've been at it for quite a few years.

How do you manage NHBC Ch4.2 foundation impacts created by water demand from trees close to buildings, as most natives are high/higher water demand and developers won’t deepen foundations to permit them. Community woodlands are great, but street trees are VITAL!

- We (TDAG) are talking with NHBC to update Cha 4.2 with alternatives…

- Good! Need to get past the LPAs next who ban them from verges etc and adopted highway land!
- NHBC Cpt 4.2 does NOT set distances for planting- It defines foundation depth
    - Ch 4.2 relates depth of foundation to distance from trees (what is the evidence for this?) and this influences acceptable distances as translated into insurance guidance.
- Low-water demanding tree species (according to NHBC 4.2) can always be selected.
    - But what is the evidence for 'water demand'?
    - Indeed, this is true… but that's why EVERY site is covered in Bet. jacquemontii and Pyrus 'Chanticleer' as the main 2 trees that have a low water demand and neither are a long term forest scale tree.
    - Except local claims for subsidence are linked to P.chanticleer
    - I actually thought that the lack of tree species diversity was more an indicator of a lack of knowledge on the part of the design team…
    - Last NHBC was cautious and removed low water demand , stating all trees as Moderate except for Oak, Willow, Poplar, Eucalyptus
    - Re water uptake, is anyone evaluating the importance of pipe leakage in the health of urban street trees. Definitely a clear factor at Elephant Park on the redeveloped Heygate Estate
    - Water demand classification in NHBC I think comes from PG Biddle, and is a construct that included records of incidents of causality, recorded distances of root exploitation, and maybe a tiny bit of science

- NHBC 2026 is already published. No update to 4.2 until 01.01.2027 at the earliest
    - Yes, but the wheels are turning…
- NPPF – street trees in all new streets…"Unless, in specific cases, there are clear, justifiable and compelling reasons why this would be inappropriate." 4.2 would appear to be such?
- The British Geological Survey has highlighted that property subsidence as a result of shrinkable clay soils is a geohazard which is likely to increase with climate change (please see https://www.bgs.ac.uk/datasets/geoclimate-open/
    - That is right…subsidence is moving north, so foundation design must change
- CABE Space published a lot on this topic, years ago. Might still be available online.
    - I think the archive is here: https://discovery.nationalarchives.gov.uk/details/c/F262882

You will never see a visual for house sales that does not include trees - behind the houses, above the camera, reflected in the windows. House sellers KNOW the value of trees!

Most of the BNG that has come across my desk is secured by condition, not s106, much less monitoring and enforcement options

- But there's not enough staff in LPAs to do the monitoring

- Needs to be s.106 to cover compliance and monitoring costs to the LPA
  - Indeed. I don't think people realise how different the monitoring and enforcement is when secured by condition, not s106

- In my LPA no one is checking that what's on the plan goes in the ground never mind whether it's being maintained or not!

- A Section 106 planning obligation will be used to secure the proposed 'significant' BNG set out in a post-approval Biodiversity Gain Plan. Applicants with 'significant' BNG must also ensure that arrangements are in place for the 'significant' BNG to be managed for 30 years, in line with a post-approval Habitat Management and Monitoring Plan. Both documents must be submitted to the council for approval before submitted before development can legally commence. BNG enhancements which are considered to be 'significant' must be managed and monitored by the applicant for a 30 year period. Monitoring reports must be submitted to the council at agreed intervals over for a 30-year period. This is a legal requirement. The fee will be charged to cover the council's cost of this monitoring over 30 years and this will be secured in the Section 106 agreement. The fee will be calculated on a case-by-case basis depending on the scale and complexity of the site, with the starting point being £12,874.

- Yes. And the majority of BNG, that I have worked on so far do not meet the threshold for legal agreement so have been secured by planning condition. This gives me far fewer 'powers' for monitoring and enforcement (even if we had enough enforcement officers)

- I'm guessing your LPA needs to update its Local Plan and SPDs, otherwise TPO under s.198 of the TCPA
- We could, should…but ultimately that's a political decision which for a number of reasons not currently palatable to the leadership. I think it's a genuine weakness in BNG
- PD is not development (under s.55), the Communications Act 2003 is also a problem. Only option is Article 4

There appears to be a market in BNG credits which leads to developers purchasing the lowest priced which may be very distant indeed!

How secure is BNG in the light of the government growth priority and how might it be likely to change in future?

Degradation is included for any pre-emptive removal once full planning is submitted

Question for Neil: Does your experience of value show that Bellway would continue to increase BNG even if it were not mandatory at any stage?

PD of phone masts certainly is a problem, one is proposed less than 1km from me in the middle of a Recreation ground, next to ancient woodland! We are struggling to oppose it. Forgive my ignorance, please, what is Article 4.
Not least because the consultation plans do not specify the cabling route.

- Article 4 removes permitted development rights - we issued one to protect buffer zone to our ancient woodland
- That sounds very useful indeed, but Article 4 of what, please?
    - The Town and Country Planning (General Permitted Development) (England) Order 2015
    - Directions restricting permitted development
      4.—(1) If the Secretary of State or the local planning authority is satisfied that it is expedient that development described in any Part, Class or paragraph in Schedule 2, other than [F1Class DA of Part 4 or] Class K [F2, KA] or M of Part 17, should not be carried out unless permission is granted for it on an application, the Secretary of State or (as the case may be) the local planning authority, may make a direction under this paragraph that the permission granted by article 3 does not apply

The British Geological Survey has highlighted that property subsidence as a result of shrinkable clay soils is a geohazard which is likely to increase with climate change (please see
https://www.bgs.ac.uk/datasets/geoclimate-open/

There is published NE evidence showing increase house values from sales close to green spaces

- Also, evidence in HM Treasury Green Book
- In 15 years of the Greenleaf Housing Awards, there were very good examples of greenspace adding value, It was particularly a feature of up-market retirement housing, with Beechcroft winning an award every year, for example
- My anecdotal evidence is that people buying properties aren't fans of trees in gardens. So, any empirical data to the contrary would be beneficial. Ultimately the market requirements may have a bigger impact than those perceived by the enlightened attendees of this excellent webinar.
- Why is it then that the most expensive houses - and areas - have by far the most trees? The maps of tree equity very much support this contrary to your anecdotal impression?