









Delivering more effective biodiversity net gain by incorporating stakeholder inputs

Henry Grub
University of Oxford

Co-authors: Prof. E.J. Milner-Gulland, Dr Julia Baker







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Government to mandate 'biodiversity net gain'

Defra Press Office, 13 March 2019 - Weekly stories



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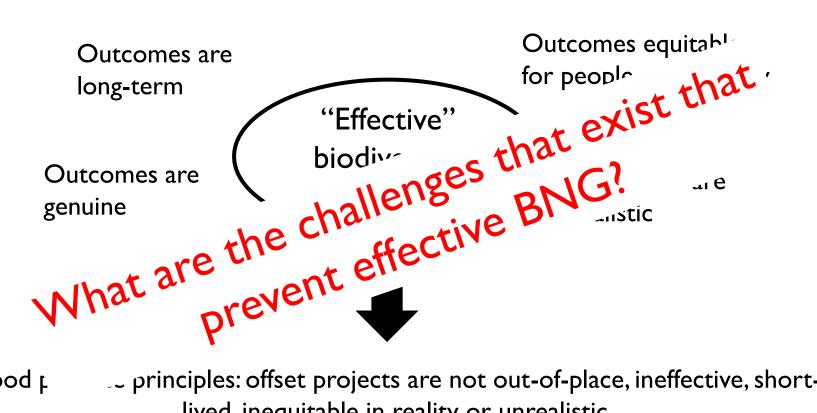
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BNG: the need for effectiveness



principles: offset projects are not out-of-place, ineffective, short-Good L lived, inequitable in reality or unrealistic

How can the longterm delivery of BNG be ensured?

Should, and how should, industry collaborate with local interest groups?

e.g. Bull et al., 2013; Clare et al., 2011; Griffiths et al., 2018

Challenges achieving effective BNG

How can BNG be designed for landscapes, based on the Lawton Principles?

e.g. CIEEM, CIRIA & IEMA, 2016; Lawton et al., 2010 How could industry find offsite locations for BNG projects?

e.g. ten Kate & Crowe,

e.g. ten Kate & Crowe, 2014; Bennett, Gallant & ten Kate, 2017

e.g. Clare et al., 2011; Pilgrim & Ekstrom, 2014

What sources should we use to measure biodiversity?

e.g. Gan

e.g. Gamarra et al., 2018;

BBOP 2012

Achieving effective BNG through stakeholder engagement

Local interest groups are:

"non-Governmental self-organised groups of people local to the project site, which partake in monitoring and/or conservation of the local natural environment in an amateur/semi-amateur capacity"





Knowledge feeds into assessments & designs?

Locals' wishes and values influence design's aims?

Methods of this research

- Summer 2018: Key Informant Interviews (KIIs) with 22 informants from four general sectors:
 - Industry commissioning agencies, consultants, offset brokers
 - Non-governmental organisations charity NGOs, institutions specialising in environment management, local interest groups
 - Record centres
 - Government Government agencies, local authorities

Academic and industry literature review



Identify five core challenges of BNG



Key Informant Interviews



Identify Case Study examples



Thematic analysis of interviews (Newing, 2011)



Findings and report

I: Should, and how should, industry collaborate with local interest groups?

2/3 of industry informants:
 "not enough"

Trade-offs: lack resources, time, manpower, money

Local groups should feed into landscape-level strategy:

"vital for local authority to be guided by our locals"

Earlier engagement: presently most engagement is consultation on already-proposed designs

A cautionary tale: The Thameslink Programme



During February and March, over 700 new tre noticed them because they are just whips - v species, although the eventual density and h

The trees have come to the Common as part scheme (* see below for some background). railway sidings at Thameslink's Selhurst depo a new train storage facility. The new trees on after the trees for the next three years. The s also be a future beneficiary. Planting had the

All of the new trees are native species releva planted in mixed clusters of at least 100 whip scare on the Common, which is currently dor

The project launch was attended by Environr

2 April 2014 / Ecology

Network Rail has carried out a biodiversity offsetting project involving tree planting on South London's Streatham Common after woodland was lost near Selhurst Sidings. However, local residents questioned both the value of the planting scheme and whether the young trees would be cared for sufficiently to reach maturity.

Network Rail said the planting complemented the existing tree line and contributed to its biodiversity project at the site.

The project is part of the £4.6 billion Thameslink Programme, Network Rail's major north-south rail project in and around London.

Planning, engineering, and programme and construction management consultancy Parsons Brinckerhoff worked with Network Rail "to do more than just mitigate biodiversity losses associated with construction with a goal of completing the project with a permanent net positive biodiversity impact".

Thameslink environment manager said: "This is the first Network Rail project to commit to a net gain in biodiversity. Once we determined it was possible to go beyond a 'no net loss' target, our goal was to leave more than we take away."

PB's biodiversity specialist Julia Baker said loss of open land in some areas along the rail corridor was unavoidable, as was the case with woodland near Selhurst Sidings: "This rail-locked land was required for storage to facilitate Thameslink, resulting in the clearance of nearly two hectares of trees.

"We retain as much of the green railway network as possible," Woodley said, "When that is not feasible, as a last resort we will look at off-site locations where we can provide hetter hindiversity opensturities.".. appear

Reaister

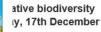
es London's

Brownfield & Contaminated Land 2019



Groundwater 2019





ed as compensation in a pment. The scheme uses compensation needed.

refully selected areas on





A cautionary tale: The Thameslink Programme

London Bridge redevelopment → silver birch woodland at Selhurst Depot removed to house trains



Thameslink decided to offset → worked with LWT



Recreate 'Great North Wood' → planting of trees at Streatham Common



Late engagement of Friends local group, disgruntled locals

II: What sources should we use to measure biodiversity? Where should we be getting data from?

Qualitative assessments: supplementary but essential to contextualise metric-approaches e.g. ecosystem function not captured by DEFRA's metric

Record centres:

- valuable 'cleaning' service
- qualitative collections
- Have 'network' connections of local groups

III: How could industry find offsite locations for BNG projects?

Agencies, NGOs & record centres all expressed interest to create databases... But competing interests with offset brokers?

NGOs already work closely with local groups, could work with rec. centres to identify potential projects

Local group-led: need refinement & technical support – but how do you find these groups?





Source: Network Rail



Linear upgrade programme of resignalling and electrification

Source: Network Rail



Balfour Beatty



Main biodiversity loss from clearing of tree cover alongside rail lines (~450 DEFRA units)



Network Rail have adopted a NNL approach



Units split up by LA \rightarrow locality of offsets (good practice)



Grant panel set up, working with NGO, find local projects





TOE (a regional NGO) handles call-outs and applications from local groups



Panel scrutinise applications, act as consultants for applicants, brings local knowledge



Best robust local projects given funding, carry out works, contribute units to NR







First approved project: Wormsley Estate Update: now 17 projects

W(Pla

79.5ha of woodland enhancement

ent

Rail

- 22ha of woodland planting
- 7ha of scrubland enhancement
- 14.5ha of scrub planting among other habitats such as ponds, hedgerows and grassland



Society

Source: Chiltern Society

IV: How can BNG be designed for landscapes, based on the Lawton Principles?

Responsibility of LA to have a clear plan for their area's landscape-level ecology, and biodiversity

But difficult without in-house ecology teams

Guidance from LAs to industry on landscape processes is very important (even more so if mandatory BNG)

Local groups and NGOs should feed into LAs' plans for that area's biodiversity and landscape ecology

V: How can the long-term delivery of BNG be ensured?

Monitoring essential – to learn what works and check "outcomes are genuine"

LAs must hold industry to account to ensure these plans are in place

Clear and funded stewardship plans also essential

Great scope to include NGOs and local groups as stewards and monitors long-term of offsets

Case Study: Woodberry Wetlands

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Hackney, N4

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Case Study: Woodberry Wetlands

Woodberry Down is a regeneration housing development in Hackney, London



Adjacent to former Thames Water reservoir, which LWT was planning to open up & turn into a wetlands



Berkeley Homes back and promoted plans, provided some funding for the wetlands



New renovated wetlands opened in 2016



Case Study: Kidbrooke Village



Source: Chase Evans









Case Study: Kidbrooke Village

Urban regeneration scheme of previous Ferrier Estate in Greenwich, starting from scratch



Plan is to build in 35ha 'tongue' of green space through the centre of the development



Berkeley ecologists created 'nine concepts' – incl. GI, species diversity, connectivity, management



LWT partnered as a delivery partner & steward



Key:

A = parkland & grassland

B = chalk stream & meadow

C = "heathland"

D = reedbed wetland

Actively considering whole landscape

Using NGO as delivery and steward partner

Plans to actively involve community in monitoring and long-term stewardship

Source: Kidbrooke Village Masterplan



What have we learned?

Closing the engagement gap between LPAs, record centres, NGOs, local groups and industry can enable more effective outcomes for BNG.

NGOs and local groups can be brought on board to take stewardship and ensure long-term delivery of BNG projects.

Industry needs clear guidance on landscape ecology recommendations and biodiversity targets from LPAs to inform BNG projects that make a meaningful and long-term contribution towards biodiversity targets.







What have we learned?

Local groups constitute an under-tapped resource when it comes to potential sites and projects, and long-term management of BNG.

Networks of relationships between all stakeholders will increase the efficacy of BNG enabling genuine outcomes.

Qualitative assessments are needed to contextualise metric-based approaches, and local groups can assist with this.







Development Idea Conceived Record centres provide data LAs/record centres point to helpful local groups Local groups advise on baselines **Development designed** Government sets legal requirements Biodiversity baselines assessed Government sets policy framework Construction planned Best practice guidelines **Apply Mitigation Hierarchy** Adjust plans & designs to avoid Local groups suggest No residual losses and minimise sites/projects Residual losses 📙 Record centres. LAs. gov't agencies have Decide to restore or offset Rejected potential site databases Offsetting: on or offsite? If offsite, find sites and then design projects LAs give clear landscape advice for that area. LAs advise on improvements biodiversity targets Submit designs and plans e.g. to Local Planning Authorities LAs in regular consultation with local groups NGOs as delivery partners Approved Works carried out Works carried out On development according to On chosen offsetting projects Concurrently or sequentially plans Local groups can carry out projects funded by industry Development completed Offsets initiated NGOs as stewards Local groups carry out monitoring Local community involved in Long-term future: stewardship of stewardship restorations or offsets Monitoring and evaluation Outcome? **Biodiversity Net Gain**

Delegate handout

Flowchart of designing and implementing a UK infrastructure development project that is aiming for biodiversity net gain, with:

<u>Currently existing</u> inputs in red (solid arrows) and

Potential inputs for the future in green (dashed arrows), identified from this research.









Thank you for listening



Henry Grub University of Oxford



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