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# National Highways Biodiversity Plan – An independent technical review

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## Document Control Sheet

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# 1. Introduction

1.1.1. Since 2020, the Office of Rail and Road (ORR) have been monitoring National Highways progress to achieve the Key Performance Indicator (KPI) of 'no net loss' (NNL) in biodiversity by the end of Road Period 2 (RP2) . The latest Biodiversity Plan 2022 responds to findings and recommendations set out in the ORR report 'Monitoring National Highways' biodiversity performance in RP2' published in May 2022 to achieve this target. ORR have instructed Ground Control as experts in Biodiversity Net Gain to provide an independent third party assessment of the robustness of the latest Biodiversity Plan.

1.1.2. The purpose of the review is to:

*[Have] third-party assurance of National Highways' updated biodiversity plan, ... to understand if the plan is robust, follows best practise and receive recommendations on how ORR could continue to hold National Highways to account.*

1.1.3. The measurement tool anticipated to be used to assess biodiversity impacts in RP2, both positive and negative, is the Biodiversity Metric 2.0. A newer version of the metric is available. It is anticipated that a newer version of the metric will be adopted for assessing the biodiversity impact in Road Period 3 (RP3). An in-depth understanding of the tools, guidance and implementation in practice is needed to critically assess where risks and dependencies lie within the plan which may compromise achieving the target of NNL.

## 2. Summary

2.1.1. Ground Control consider the plan presented by National Highways to be a detailed and comprehensive account of the journey and projection since the beginning of RP2 relating to biodiversity. Clearly a considerable amount of work, expertise and consideration has gone into the plan and all of the component parts for which National Highways should be congratulated. It is recognised that balancing the delivery of a national portfolio of projects and accounting for both positive and negative impacts to biodiversity is complex. Perfection can often be a barrier to progress. Upon reviewing the plan, consideration has been given to the progress of accounting for biodiversity to date and recommendations are made which may be adopted within RP2 retrospectively or considered as lessons learned to inform the targets of RP3.

2.1.2. National Highways have been amenable and responsive to queries and requests during the review process to provide evidence and clarity underpinning the plan. However, there are some areas of the process which have not been available for review, either because the process is not in place or otherwise. These uncertainties due to lack of information are identified in the review. The review of the plan is limited to the information provided.

### 2.2 Interpretations and non standard approaches

2.2.1. National Highways have taken some non-standard approaches and interpretations to biodiversity accounting to enable accounting of biodiversity units across a large, dispersed area and varying biodiversity impacting business streams. A non-standard approach is one which is not defined in guidance or is not compliant with guidance. National Highways have taken the following interpretation of what Biodiversity and 'no net loss' means and when it is relevant;

- Area habitats within the biodiversity metric 2.0 are accounted for only.
- Avoidance of replacing biodiverse habitats with large areas of less biodiverse habitats. I.e. rule 3 of the biodiversity metric 2.0 to replace lost habitat with 'like for like' or 'like for better' across the estate and operations.
- The impacts, both negative and positive, are considered holistically across RP2 to meet the target of NNL.
- The impact of operations and major projects, both positive and negative, are considered to have taken place when ground is broken and works have commenced.

- The EWF designated funds projects are considered as available to claim towards the KPI target upon completion of 'main works' which are the enabling capital works required at the start of the scheme (e.g. planting the trees for woodland creation).
- An assumed a 1% reduction in baseline biodiversity units across the soft estate to reflect everyday operations, road mortalities and impacts from noise and air pollution.
- A disregard for linear biodiversity metrics. Linear habitat impacts are encouraged to be accounted for but do not contribute to NNL KPI target compliance.
- A disregard for habitat specific trading rules while complying with rule 3 holistically
- Offsite spatial risk multipliers are disregarded and the unit accounting is considered holistically

2.2.2. Some of the non standard approaches listed above have been agreed with the Department for Transport in the Operational Metrics Manual which sets out the design and reporting process for National Highways monitored Key Performance Indicators.

## 3. Methodology

### 3.1 Assessment Criteria

- 3.1.1. Ground control will assess the Outcomes and Actions listed in the Biodiversity Plan 2022 in accordance with the following biodiversity relevant Key Performance Indicator (KPI) action plan assessment criteria;
- 3.1.2. **Relevant**; Assess relevance to and consistence with the National Highways 'no net loss' in biodiversity target;
- 3.1.3. **Focused**; Focused on the outcome desired to achieve 'no net loss' in biodiversity;
- 3.1.4. **Representative**; Representative of the impacts, both negative and positive, on biodiversity;
- 3.1.5. **Realistic**; Reasonably achievable within the organisation's operational and financial constraints;
- 3.1.6. **Measurable**; Proposed metric validity, interpretation and translation in the context of the key highways operations;
- 3.1.7. **Data usefulness**; Usefulness of the data to identify trends representative of the diversity of life on highways impacted land which is resilient to changes to metrics, guidance and policy in future;
- 3.1.8. **Timely**; achievable within RP2, implemented and monitored for the duration of the metric timeframes
- 3.1.9. **Articulate**; The outcomes and actions are easily understandable to the target audience;
- 3.1.10. **Feedback**; Progress reports are made available to ORR and stakeholders in appropriate timescales in order to respond to projected and actual success differences;
- 3.1.11. **Governed**; Accountability and responsibility is defined and understood at an organisational or departmental level;
- 3.1.12. **Resourced**; the program is cost effective and adequately resourced throughout its lifetime to deliver the objectives using delivery methods which are appropriate to the timeframes;
- 3.1.13. The Biodiversity KPI action plan assessment criteria will be conducted using best available evidence and guidance with qualitative justification which will be concluded with the Red, Amber, Green risk management indicators. Recommendations will be made against each assessed outcome and objective.

**Red** – The action/target is unlikely to be achieved; or

The action/target is not appropriate or relevant to achieving the 'no net loss' target

**Amber** – The action/target is at risk of failure; or

There is insufficient information to determine likely achievability; or

**Green** – The action/target is achievable and appropriate to the 'no net loss' target

3.1.14. The same methodology and exercise will be carried out during the second call out if instructed.

3.1.15. The report will conclude whether or not the Biodiversity Plan 2022 is likely or not to be achievable within the known constraints and if the delivery of the actions will achieve a 'no net loss' with reasonable certainty. Recommendations will be made to improve the Biodiversity Plan where necessary and appropriate which will be categorised as either 'Essential' to deliver the 'no net loss' target or 'Desirable' to achieve a better resolution of product, data or increase biodiversity.

### 3.2 Stakeholder Engagement Questionnaire

3.2.1. Internal and external stakeholder engagement will be sought via a structured and targeted questionnaire (see annex A). The questionnaire will harvest perceptions and opinions relating to the Biodiversity Plan which includes the methods, analysis, delivery and legacy of biodiversity unit impacts within National Highways. Risks and dependencies associated with the outcomes and targets are concluded in the qualitative analysis of the completed questionnaires. The respondents to the questionnaire included a cross section of the organisations whom have had an interface with National Highways and the 'no net loss' KPI. These included; Natural England Biodiversity Net Gain Team, Defra Biodiversity Net Gain Team, Area team representative for National Highways, Wildlife Trust and National Trust.

Question	Response Category	Summary (bold for most common response)
Q1; NH have a target of 5,745 biodiversity units to be delivered by the end of RP2 (2025). NH have over programmed the delivery of biodiversity units to achieve NNL of ~8300 units. 453 units have been delivered as of September 2022, at over half way through RP2 which accounts for ~8% of the KPI target. How confident are you that the NH NNL KPI target will be met by 2025.	Multi Choice	<b>Doubtful and confident 50:50 split</b>
	Reason	Track record indicates that meeting the target is unlikely particularly given that there is a reliance on the delivery of schemes with low confidence. However it is noted that the first few years have been spent planning and meeting the requirements of the scheme and inevitably the delivery of units is likely to be loaded towards the second half of the road period.
	Suggestion	Risk of delivery and expected timescales against each project would increase the resolution of associated risk and would better reflect risk of meeting the KPI as a whole. The bureaucracy of the process slows down progression of schemes to implementation unnecessarily. Simplification of the process would allow 'shovel ready' projects to be implemented without unnecessary delays. Reference was given to the feasibility process for schemes which make logical environmental sense
	Multi Choice	<b>Unsure or disagree</b>
Q2; NH have agreed that a 1% assumed degradation in biodiversity units occurs on their land every year to account for road use impacts	Reason	There is little evidence to justify the 1% threshold which appears to be arbitrary. The consensus is that recognition of these operational impacts on biodiversity is essential but the method of quantifying that in metric terms is questionable.

such as, mortality of species, air and noise pollution. This totals 5654 units over RP2 to be compensated for. Do you agree that the 1 % degradation assumption is appropriate and relevant?	Suggestion	Justify the 1% figure or change the approach.
Q3; Impacts to linear features (hedges and rivers) are not deemed relevant to NH NNL target. Do you agree?	Multi Choice	<b>Disagree</b> and strongly disagree
	Reason	Feedback overwhelmingly concludes that linear habitats should be accounted for in the biodiversity metric as a critical component of achieving 'no net loss'. Linear habitats are excluded from the area metric and split out because they are deemed to be of higher value to biodiversity than just the component habitats, in particular for connectivity. Not accounting for these linear features is a gross misrepresentation of biodiversity impact.
	Suggestion	Include linear habitats towards National Highways biodiversity NNL KPI.
Q4; Trading rules that lost/degraded habitats will be compensated for with the same distinctiveness habitat or better are considered relevant to the NH NNL target. How much confidence do you have that NH account for impacts, both positive and negative, sufficient to understand if the trading rules have been met?	Multi Choice	<b>Unsure</b> , doubtful and confident
	Reason	There is little evidence to recognise how the trading rules are being met. On the basis that there is little evidence, it is assumed that it is not being accounted for and assumptions are being made.
	Suggestion	Recognise across the estate what impacts are being experienced and how the trading rules are being met.
Spatial risk multipliers penalise (in reduction of units) the provision of biodiversity compensation if it is provided further away from the impact. NH do not consider spatial risk multipliers due to complexities of balancing the biodiversity impacts across the country over multiple sites and the units are considered holistically over RP2. Do you agree with this approach?	Multi Choice	<b>Agree</b> , disagree and unsure
	Reason	Generally the approach is accepted as being appropriate for the 1% degradation compensation, However, spatial risk multipliers for offsite compensation should be accounted for at the scheme level for major projects because the detail is known and the risk multiplier is relevant to the unit delivery.
	Suggestion	A strategic approach to delivery of offsite schemes would assist in the delivery of wider nature recovery ambitions and initiatives.
	Multi Choice	<b>Agree</b> , Disagree and unsure

<p>Q6; NH program of biodiversity unit delivery is categorised into four categories as follows;  <b>Category 1</b> - Projects in implementation stage;  <b>Category 2</b> - Projects in design stage;  <b>Category 3</b> - Projects in feasibility stage;  <b>Category 4</b> -Projects in prefeasibility;  These categories are intended to define the risk of delivery within RP2. Do you agree that the definitions achieve this?</p>	Reason	It is agreed that the categorisation gives an indication of risk, however there are likely to be missing elements which adequately reflect the risk of delivery within RP2. Some schemes will be complex and take longer to progress through the categories which is not represented in the existing categories.
	Suggestion	Better accounting of risk at the scheme level.
<p>Q7; NH consider biodiversity unit impacts, both positive and negative, to occur for major projects upon commencement and for Environment and Wellbeing Fund schemes upon completion of the major works (establishment capital works). Biodiversity units are the accumulation of biodiversity over 30 years. Do you agree with NH definition of when biodiversity units can be counted towards the KPI?</p>	Multi Choice	<b>Unsure</b> and Agree
	Reason	There appears to be some confusion around the approach that NH takes to claiming biodiversity units towards their target. This is possibly because there is two approaches depending on the type of project. One at the point of commencement and one on the completion of the main works. It is noted that biodiversity units should be counted at the point of securing the scheme and commencement. Counting the units following completion of the main works rather than commencement raises concerns that the mechanisms used to secure the Designated Funds Schemes are not certain, otherwise the same approach would be used as for major projects.
	Suggestion	Use the same approach and trigger as to when biodiversity units are claimed for all schemes.
<p>Q8; NH are using voluntary agreements to secure biodiversity enhancement schemes with conservation organisations for a minimum of 30 years. How confident are you that voluntary agreements will deliver the agreed biodiversity outcome for the 30 years required to count the biodiversity units?</p>	Multi Choice	Confident, doubtful and unsure
	Reason	It is concluded that confidence in delivery of environmental outcomes by conservation organisations is high. It was verbally noted by NH to Ground Control that voluntary agreements are being used to secure environmental outcomes with conservation organisations. It appears that a deed agreement is being used as a mechanism to secure environmental outcomes with the National Trust which has more control than a voluntary agreement. Without full transparency of what mechanisms are being used for each situation and supplier profile, it is difficult to identify risks of delivery.
	Suggestion	Provide more information on mechanisms to secure management and the management agreements themselves.
	Multi Choice	<b>Unsure</b> and Yes



Q9; NH use a value for money threshold for Environment and Wellbeing Fund schemes. Value for money on third party land which should include funding for all actions necessary to deliver the scheme for 30 years is set at approximately £16k/unit. Value for money on NH land which includes the funding for the first 5 years is set at approximately £22k/unit. Do you consider these thresholds to be appropriate and proportional to the requirements in delivering biodiversity schemes?	Reason	It was considered that the funding for within the NH network should be higher due to the requirements of traffic management. It was considered that the value for money threshold should be in line with the latest Defra Market analysis of £20k-£25k/unit. Generally the threshold of value for money were considered appropriate although the funding should be allocated and costed for the agreement duration of a minimum of 30 years, not just for the first 5. Different habitat interventions and unit delivery has different associated costs which is not considered in the value for money threshold. Ground control are aware of schemes which have been modified or bundled together to find ways around habitats which score low units/ha and or are expensive to implement. If highways wish to promote the right habitats in the right place and to ensure that their trading rules are met across the estate, value per habitat or broad habitat will be necessary.
	Suggestion	Increase the funding requirement from 5 to 30+ years for schemes within NH landholding. Align with the Defra market analysis valuation. Set different value for money thresholds for different habitats.
Q10; NH secure biodiversity schemes on their own land. The funding covers the first 5 years of establishment. How confident are you that the appropriate mechanisms, process and funding are in place to secure the management of the habitats in the claimed type and condition for the 30 year period?	Multi Choice	<b>Unsure</b> and doubtful
	Reason	No mechanisms have been identified to give confidence that schemes will be funded and delivered beyond the first 5 year funded period. No management agreements or commitments have been made. No process to secure the management and how it is embedded into the estate management. No funding mechanisms have been identified to ensure that funding is available to deliver the required management.
	Suggestion	Identify how management and monitoring will be embedded into the estate management after the first five years and funded for the duration of the scheme.

## 4. Analysis and Recommendations

4.1.1. The methodology assessment criteria is applied at a plan level to determine the robustness of the plan as a whole to achieve the desired objectives. Recommendations are provided within each sub-section where relevant.

### 4.2 Relevant

4.2.1. *This assessment criteria provides an independent review of the relevance of the biodiversity target and the plan to deliver the no net loss in biodiversity target.*

#### 1% assumed yearly degradation

4.2.2. Accounting for highways general impact to nature on the estate by existing operations is deemed appropriate by the authors to adequately reflect operational specific impacts relating to highways which are not taken account of in the biodiversity metrics. The 1% deterioration of the estate biodiversity value is however not substantiated by evidence to the knowledge of the authors. As

the biodiversity metrics do not consider proximity to a road having a detrimental impact on biodiversity, it is difficult to assume how a 1% figure has been decided on.

- 4.2.3. Furthermore, the methods of unit delivery through designated funds encourages schemes near to the road networks and has a higher financial threshold for biodiversity units within network. However, the closer the scheme to the network the less effective the scheme is at mitigating these road specific impacts on nature such as air quality and road mortalities.
- 4.2.4. It is considered essential that to achieve a NNL that the impacts to habitats adjacent to the highway network which are not adequately accounted for in the biodiversity metric are considered and mitigated although the methods in quantifying them in the plan are not deemed to be sufficiently evidence based.
- 4.2.5. Recommendation; Evidence the % degradation to ORR or redefine and agree how the impact is quantified. Provide a policy on site selection which compensates for the impact rather than incentivising the delivery of schemes where the impact is still experienced.

#### **Linear Features**

- 4.2.6. National Highways interpret no net loss with a disregard for linear biodiversity units (hedges and watercourses) as a component of a metric based biodiversity impact. Linear habitats are made up of a structure and fabric which support biodiversity in isolation. They are considered separately in the biodiversity metrics in the Hedgerows and Lines of Trees metric and Rivers and Streams Metric because they are worth more than the sum of their parts as ecological corridors for species to navigate our landscape. While it is unlikely that general operations will result in the loss or degradation of hedges and lines of trees, major projects are likely to result in direct losses which should be accounted for. Rivers and streams which are hydrologically connected to highways are however likely to suffer impacts from general operations as a result of surface water runoff carrying pollutants. Major projects are also likely to directly impact rivers and streams which are not accounted for in the area metric.
- 4.2.7. Recommendation; Account for impacts to linear features as a key component of a biodiversity impact assessment unless otherwise agreed with ORR. NH to assure ORR that linear features are considered with respect to enhancement schemes.

#### **Connectivity Barriers**

- 4.2.8. Highways are a linear feature by definition and often support diverse habitats and havens for wildlife on their peripheries which are not subject to the intensive land management of agricultural land. The adjacent habitats to highways have the potential to act as ecological highways in the same way that linear habitats in the metric are recognised for. However, road schemes dissect the countryside and act as a barrier to species mobility by isolating wildlife to disconnected islands of habitat. This is relevant to connectivity of a landscape through linear features although not a factor which is adequately reflected in metric based calculations. This is an ongoing detrimental impact on biodiversity of existing highways operations, a new impact on the upgrade of existing roads and a potentially substantial new impact from the construction of new roads. No consideration is made for the definitions, interpretation or implementation of biodiversity planning and action to achieve a NNL which takes into account this impact on connectivity. This impact of highways, both existing and planned, to connectivity is likely to be equal or more impactful to biodiversity than anything within the highways current definition of 'impact to biodiversity'.
- 4.2.9. Recommendation; NH to consider carrying out a spatial analysis of species flow across the country to identify where connectivity of species across the landscape is impeded by highways existing and proposed for RP3. This will help prioritisation and identification of the need for green bridges in the right place based on evidence.

### **Offsite Spatial Risk**

- 4.2.10. Offsite spatial risk multipliers are disregarded in NH interpretation of NNL. While this risk multiplier is an integral element of the metric which determines unit outputs, the incorporation of this risk multiplier is not simple to account for within the definitions of impact using the 1% degradation.
- 4.2.11. However, it is recognised that major projects with directly associated offset schemes are indeed able to quantify the relevance of the offsite multiplier. Should National Highways determine that where possible, the biodiversity metric 2.0 guidance should be followed where practical and possible, major projects should account for these metric based spatial risks.
- 4.2.12. Strictly speaking, the provision of compensation close to the impact is a political and public relations element of metric calculations so exclusion is not considered of consequence to the target of NNL in the purest meaning of biodiversity and interpretation of metric based biodiversity by NH.
- 4.2.13. Recommendation; Use of offsite spatial risk multipliers should be considered when the details of the proposal and the associated offsite compensation area is known.

### **4.3 Focused**

- 4.3.1. This assessment criteria provides an independent review of how focused the biodiversity target and the plan to deliver the target is on delivering the desired outcome.

### **Project Categorisation and % Delivery Forecasts**

- 4.3.2. Project categorisation has been identified to indicate progress and risk. The descriptions of each category are qualitative in nature which give a rough indication of where each project is in the journey to delivery. There is, however, no quantitative milestones which enable transparency of scheme progress. The categorisation descriptions give an indication of how progressed each project is although there is little consideration for defining risk. While progress is relevant to risk of delivery there are many factors which are absent.
- 4.3.3. Using the number of schemes and units within each progress category to define the possible permutations of % delivery forecast seems arbitrary in nature and are not relevant to the delivery risk in isolation. The delivery risk of a scheme by a third party which is in category 2, where the price per unit is not agreed, is likely to be very different to the risk of delivery of a project in category 4 which is fully within the control of NH. Furthermore, considering the definition of when biodiversity units are 'counted' for Designated Fund projects, projects which are secured, paid for and 'major works' are currently being implemented is low where as projects which have been 'counted' have near zero risk of delivery.
- 4.3.4. Recommendation; Split out and define the BU impact areas; 1% deterioration/Major projects/designated funds. Identify milestones for each impact area which relate to a category. Assign risk to delivery of each impact area based on track record of slippage. Use risk factors and track record to establish delivery risks for each category. A separate methodology for identifying the variety of project risks which can be translated into a % delivery may be required to accurately forecast meeting the KPI of NNL.

### **Backstop**

- 4.3.5. Reference to the Environment Bank as a default should be reconsidered. Other mitigation providers, locally and nationally, are available with arguably more certainty over track record and transparency of fund allocation. There are many private farm diversification projects across the country, which is increasing every day, ready for investment to purchase biodiversity units.
- 4.3.6. Recommendation; If a process is needed to secure additional units towards the end of RP2, a call for sites with eligibility criteria would fairly identify options and NH would be empowered to select a site which meets the criteria and proves to be value for money. If a default is to be applied as a

backstop without consideration of the projects themselves, the Natural England credits scheme should be cited as an government intermediary which will be live and available at the end of RP2.

#### **4.4 Representative**

*4.4.1. The plan is representative of the impacts, both negative and positive, on biodiversity;*

##### **RP2 Unit target**

4.4.2. The contributions towards the overall biodiversity target for National Highways within RP2 are made up of both direct impacts from plans or projects and indirect impacts from general operations. The 1% degradation is unlikely to change without reconsideration of the definition, however, the delivery of schemes which both negatively and positively impact on biodiversity units may change due to slippage. Current forecasts indicate the likely delivery of schemes which will benefit biodiversity unit delivery with assumptions and scenarios for slippage. This does not take into account the likely slippage of schemes which will negatively impact biodiversity. To fully understand the risk of meeting the NNL KPI, both positive and negative impacting schemes should be recognised.

4.4.3. Recommendation; Provide a breakdown of units for negative and positive impacting projects. Slippage and non-delivery also impacts the negative impacting schemes which are currently not represented in the plan.

##### **Existing network professional survey % coverage**

4.4.4. The 1% degradation assumption relies on the confidence in the data of the existing estate habitat types and condition. There is little evidence or statement to identify the confidence in this data. The coverage of the estate with professional surveys from a competent person which is recent enough to give confidence is unknown and consequently the baseline biodiversity units as an asset and what 1% of that figure may be is of unknown certainty. Since the beginning of RP2, the baseline assumed figure has been updated to be less than previously assumed by a considerable amount. Without knowledge of the level of confidence in the baseline figure, it is difficult to ascertain the level of risk of meeting the NNL KPI.

4.4.5. Recommendation; NH to provide better clarity on the certainty of existing baseline habitat type and condition coverage.

##### **Irreplaceable habitats**

4.4.6. It is uncertain if irreplaceable habitat losses are included in the summary unit impacts for each project nor if the compensation for those losses are included or not. It should be assumed that the biodiversity metric can act as an indicator of what would be required as a minimum for NNL of irreplaceable habitat losses. However, the compensation agreed is often higher than that stated in the metric. If irreplaceable habitat impacts and compensation are included in the grand totals, it is likely that the additional elements above and beyond what the metric requires will be used to compensate for other program impacts to meet the KPI.

4.4.7. Recommendation; Clarification on this point is required and preferably a separate unit breakdown of bespoke scheme biodiversity impact should be provided.

##### **Trading rules**

4.4.8. NH purport that trading rules in accordance with rule 3 of the Biodiversity Metric 2.0 that high distinctiveness habitats will not be replaced with lower distinctiveness habitats although there is no evidence that trading rules data has been collected in the master tracking spreadsheet to understand how many units of each distinctiveness are lost and compensated for. In the absence of this data, it is not possible to determine if indeed the unit delivery forecast will achieve a NNL or

net gain in accordance with the definition, even if the units delivered at the end of RP2 match or exceed the units lost during RP2.

4.4.9. Recommendation; Provide details to show how the trading rules are being met through program delivery and which habitats and trading rules are at risk, should some schemes not progress within RP2.

## **4.5 Realistic**

4.5.1. *Achievable within RP2, implemented and monitored for the duration of the metric timeframes.*

### **Realism**

4.5.2. There is not enough detail within the component parts of the biodiversity unit delivery plan to determine if the projected units are realistic to achieve in principle. A scheme level analysis would be needed to determine how realistic the proposals are which is out of the scope of this review. It is however noted that the biodiversity team in National Highways are very experienced ecologists with expert level knowledge of the biodiversity metric. Furthermore, Ground Control have experienced high levels of precaution regarding National Highways appetite for risk when endorsing habitat scheme types and condition. On this basis, in the absence of further evidence to the contrary, no concerns are noted regarding realistic unit targets at the scheme level.

4.5.3. Recommendation; A further review to include a deep dive into project level details of habitat proposals.

### **Recognition of Risk**

4.5.4. There is not a categorisation of project risk nor are there risk milestones to identify when a project has less risk as it overcomes hurdles. It is not possible to identify a reasonable risk of unit delivery across the programs in the absence of adequate risk categorisation. In the absence of adequate risk categorisation it appears that the unit delivery to achieve the KPI is heavily loaded towards the end of RP2. If success was only based on delivery to date as an indicator of future projections it appears unlikely that the KPI will be met within RP2. However, it should be recognised that projects take some time to plan and agree to a point of implementation. On this basis it is entirely possible and expected that project implementation will be loaded towards the second half of RP2. This is further exaggerated by National Highways interpretation of when biodiversity units may be counted towards the KPI for Designated Funds projects as previously mentioned.

4.5.5. Recommendation; NH to reconsider how risk is attributed in the tracking of projects. Associate levels of risk to each project based on defined criteria. Redefine when project biodiversity units are 'counted' to ensure consistency of approach.

## **4.6 Measurable**

4.6.1. *The proposed plan is valid in accordance with the definitions of biodiversity and interpreted correctly in the context of the key highways impacts on biodiversity.*

### **Additionality**

4.6.2. Network For Nature (NFN) project with the Wildlife Trusts includes the provision of biodiversity units on statutory designated sites. Landowners of statutory designated sites, specifically Sites of Special Scientific Interest (SSSI's), under the Countryside Act 1981 (as amended), have a legal duty to manage them in a certain state and condition. Government funding is available in the form of environmental stewardship to manage SSSI's to meet their objectives. Where there is funding committed for an environmental outcome, for example environmental stewardship, or where there is a legal duty to deliver an environmental outcome, additionality is relevant. Additionality definitions for the biodiversity metrics are defined as; "*The need for a compensation measure to provide a new contribution to conservation, additional to any existing values, i.e. the conservation outcomes it delivers would not have occurred without it.*" Additionality definitions have not been made available to understand how National Highways have taken this into account and ensure that payments are providing additional benefits which would not have occurred anyway. In the

absence of how additionality has been taken into account, it is not possible to determine the appropriateness of biodiversity units proposed to be delivered within RP2 on sites which have a statutory conservation designation. If indeed, biodiversity units have been derived from the delivery of environmental outcomes under which the landowner has a duty to carry out, it would be unlikely to be acceptable through biodiversity net gain implementation in the planning sector. However, it is up to ORR to disregard this interpretation as necessary.

- 4.6.3. Recommendation; Define National Highways definition of additionality and agree with ORR. Reassess if the agreed definition impacts on the units delivered from affected schemes.

#### **Data usefulness**

- 4.6.4. *The plan is founded on useful data to identify trends representative of the diversity of life on highways impacted land which is resilient to changes to metrics, guidance, and policy in future.*

#### **Scheme Planning Progress**

- 4.6.5. In addition to the lack of accounting or transparency for trading rule compliance which is a crucial missing piece of evidence as previously mentioned, no record of date estimate/target for each categorisation progression of a scheme is present. Date estimations to reach a milestone and time a milestone was reached in practice are useful today in anticipating risk of delivery for RP2 but they are also useful in the evolution of scheme risk categorisation for future road periods. With the existing delivery date timeframes in National Highways unit tracking spreadsheet with a two year bracket is not sufficient resolution to conclude associated risk and what the actual date of achievement is relative to the expected date.
- 4.6.6. Recommendation; Include both expected date of achievement and actual date of achievement to reach an agreed milestone which align with the category definitions. Also include reason for not meeting the expected date for future forecasting and risk analysis.

#### **Futureproofing**

- 4.6.7. There appears to be a very large overprogramming to achieve the NNL in biodiversity target within RP2 to manage risk. It is uncertain what the target will be for RP3 at the time of writing this report and it is uncertain if all projects within the existing program will be progressed beyond RP2 to 'make good' the RP2 biodiversity commitment (i.e. if the KPI is not met that the deficit is rolled over to RP3). The decision to use the Biodiversity Metric 2.0 for all schemes is a sensible one to ensure consistency of approach and that unit impacts and delivery are directly comparable. However, with the significant over programming for unit delivery, it is inevitable that some projects will miss RP2.
- 4.6.8. Recommendation; Considering the evolution of the biodiversity metric since the release of the metric 2.0 in 2018 to the current latest version of the metric 3.1 and the anticipated metric 4.0 in January 2023 it would be prudent to consider futureproofing the program by advising schemes to concurrently record habitats under the latest version of the metric, or have sufficient survey data to enable a desk based conversion. This would enable existing schemes which are progressing under the RP2 program towards NNL to be transferable to any future requirements under RP3 if necessary.

### **4.7 Timely**

- 4.7.1. *The plan clearly shows delivery of the program in a timely manner with known risks of slippage in each category.*

#### **Trigger to count units towards the KPI**

- 4.7.2. The units secured on a project secured through the Designated Funds are deemed to be counted towards the KPI when the 'main works' are complete and the site is deemed 'open for traffic'. Units secured through a major project scheme are deemed to be counted towards the KPI upon commencement of the scheme. Counting the biodiversity units are often counted in a



development context in year 0 on day 1 upon commencement of the project in the same way as it is accounted for with major projects. If works have commenced, the project has been agreed, funded and is in implementation. Counting the units after the major works are complete indicates

that it is interpreted that the biodiversity value is a fixed point in time and is achieved at this point. Biodiversity units are calculated as an accumulation of units over a 30 year+ timeframe and are not a fix asset at a fixed point in time. Counting biodiversity units part way through a habitat enhancement or creation scheme is inconsistent with the approach in the planning sector and with National Highways approach to major projects. It is however recognised that biodiversity is only likely to start accumulating on a site once the habitat interventions have been implemented albeit not relevant to metric based biodiversity calculations.

- 4.7.3. Recommendation; Define the interpretation of when biodiversity units can be counted which is consistent across the portfolio. It is recommended that the definition is aligned with that of Major Projects as the standard in the development sector, i.e. when the scheme commences. However, consideration should be had for the certainty of delivery of the outcome. If a third party provider has signed a legal agreement and been paid in full to deliver an outcome then it should be assumed that upon commencement the scheme will be delivered in full. If an internal scheme within NH is proposed with uncertainty as to exactly how much will be completed, then a delayed trigger point may be more appropriate.

## **4.8 Articulate**

- 4.8.1. *The outcomes and actions of the plan are easily understandable for the target audience.*
- 4.8.2. The plan contains a glossary to help users understand the acronyms and terminology contained within the plan. The plan is considered to be worded in such a way that is easy to follow and understand the purpose and meaning of the text.
- 4.8.3. There are many bespoke definitions which have been adopted by National Highways which are not disclosed within the plan and have been provided separately. All non-standard approaches which are in contrast to the standard interpretations of biodiversity and use of the biodiversity metric should be clear at the start of the documentation to help users understand the content of the plan.
- 4.8.4. Recommendation; Include all definitions which are non-standard in the plan for context.

## **4.9 Feedback**

- 4.9.1. *Progress reports are made available to ORR and stakeholders in appropriate timescales in order to respond to projected and actual success differences.*
- 4.9.2. Example quarterly external reports to ORR and monthly internal updates have been provided by National Highways to indicate the frequency and resolution of the data which is provided. The graph in the quarterly update appears useful in identifying progress to date and forecast by the end of RP2. The text update on the progress towards NNL within the quarterly report identifies % delivery at 50%, 75% and 100%. As mentioned earlier within this review, these % delivery scenarios appear arbitrary and are not evidence based. Better categorisation of risk will help indicate the likely % delivery which will be more meaningful in the update. This risk of delivery % should change each quarter as schemes progress through the categories, reducing the associated risk. The internal monthly update is unlikely to be of concern or meaning to ORR, however for the benefit of NH, Ground Control consider that it would be more useful to indicate both the negative and positive impacting schemes counting towards the NNL KPI. Each month when schemes are commenced or the main works complete, a known impact, both positive and negative, is noted and the net difference is identified to show the accumulation and progress each month. It may be useful to add a figure for schemes which have commenced but the units can not be counted until completion of the works, which are certain to be delivered. Considering the need to satisfy the trading rules to achieve a NNL under National Highways definition, a note to show any outstanding trading rules to be rectified may also be relevant.

4.9.3. The system in which schemes across the programs which count towards the NNL target are monitored is unknown. Given the dynamism of a diverse portfolio such as that of National Highways, a system or tool which merges all scheme latest biodiversity metrics both positive and negative would be a prudent and programmatic way of monitoring change and forecast. Such a system could be used to simplify the bureaucracy of handling data to provide frequent updates.

Such a system could help store data on costs, progress, and timescales sufficient to be extracted in the correct format for reporting.

4.9.4. Recommendation; Improve the recognition of risk as described or other as necessary. NH to continue to provide ORR with a monthly update, with the total number of biodiversity units in each delivery category and the total impact of schemes starting work in that month (positive and negative), with a more transparent accounting system accounting for scheme risk being developed in future.

#### **4.10 Governed**

4.10.1. *Accountability and responsibility is defined and understood at an organisational or departmental level.*

4.10.2. The process for securing unit delivery within and outside of the NH network is uncertain. Biodiversity units is the accumulation of biodiversity over 30 years. Without robust agreements and secured financial mechanisms, the delivery of the units for 30 years is uncertain. Further information is required to adequately assess this element although commentary is provided below for the known elements.

#### **Designated Funds - Wildlife Charity Agreements**

4.10.3. It has been noted verbally that conservation charity schemes are agreed through a voluntary agreement.

4.10.4. However, example agreements by deed have been provided for both Wildlife Trust and National Trust schemes. The legal repercussions of such a legal agreement are not known to Ground Control and are not within the scope of this review.

4.10.5. It is noted that there are no remedies within either example agreement provided as to what the process should be in the event that a breach occurs. ORR or National Highways may wish to seek further legal advice on what remedies are available with this type of legal agreement and if it should be recognised within the deed itself. It is not uncommon for conservation charities to receive penalties for non compliance of environmental stewardship agreements each year which are short term agreements of between 5 to 10 years which are specifically designed to conserve and enhance the environment. Many of these breaches are accidental or unintentional, although considering that the schemes financed by National Highways are being used to account for negative impacts, the delivery of the environmental outcome as agreed is more imperative. An assumption that a conservation charity will carry out its duties under the agreement is not justified by evidence and a remedies process should be defined.

4.10.6. Recommendation; Seek legal advice, amend as necessary and disclose the security of the legal agreement in the plan.

#### **Section 253 Agreements**

4.10.7. Ground Control have had experience with negotiating a Section 253 agreement under the Highways Act 1980 with National Highways on a site which is being offered for biodiversity net gain. It is understood that this form of legal agreement is only available when it is directly relevant to the implementation of a highways project. It is not known what, if any, remedy measures are enforceable under this agreement and there is no such process identified for non compliance within the agreement provided to Ground Control. ORR and National Highways may wish to seek legal advice on what remedies are available under this agreement and if a remedy process should be laid out.



- 4.10.8. Recommendation; Seek legal advice, amend as necessary and disclose the security of the legal agreement in the plan.

#### **Designated Funds – National Highways Estate Projects**

- 4.10.9. There is no process, agreement or example commitment document which has been provided to show how the management and monitoring of biodiversity units expected to be delivered on

National Highways land will be executed. There appears to be little confidence in the questionnaire feedback that there is a process and that the management and monitoring will be carried out beyond 5 years. Further clarity on how the management and monitoring commitments on the estate will be honoured and embedded in estate management for 30 years as a minimum. If there is reliance on future funding to manage the schemes which are contributing to NNL within RP2 which is uncertain, there is also uncertainty of delivery of the biodiversity units should funding be cut at any point in the 25 years beyond the initially funded 5. In order to count any biodiversity units within the NH estate towards the NNL target, certainty must be attained that funding for management is secure for the duration. This could be achieved by securing the known funds to carry out the management from this financial period to achieve the objectives. Alternatively, a commitment at a high level could 'top slice' each financial period prior to budget allocation. If certainty can not be achieved, schemes should assume that funding and management will not be forthcoming and the proposed habitat types and condition should be adjusted accordingly.

- 4.10.10. Recommendation; Define how biodiversity unit delivery will be secured within National Highways landholding with certainty. If certainty can not be achieved, modify the expectations of NH estate schemes to assume that funding and management will not be forthcoming.

#### **Double Funding, Stacking and Bundling**

- 4.10.11. Double funding is where multiple funding is provided, principally from public funds, to secure the same outcome and in simple terms the tax payer, funding the same scheme twice. Double funding has not been described and should form part of all third party agreements to ensure transparency. With the current process, a site may be presented which proposes habitat interventions funded by other government initiatives such as the woodland grant scheme or environmental stewardship. Often when entering into a government funded initiative such as environmental stewardship, the application form asks for disclosure of commitments under a section 106 agreement but not any of the mechanisms used and available to National Highways. Consequently, double funding may be possible without trace and it would not be in breach of the existing agreement examples provided.

- 4.10.12. Stacking and bundling has a similar definition where an environmental project will yield different environmental benefits. This may be biodiversity units, nutrient neutrality offsetting, public access to offset impacts on designated sites, carbon offsetting etc. Stacking is where each saleable environmental product is sold to separate users from the same land. Bundling is where the outcome of all saleable and quantifiable products are sold to the same customer. For transparency and avoidance of confusion, the expectations of National Highways of these definitions should be made clear in any agreement for both themselves and third parties.

- 4.10.13. Recommendation; Define National Highways interpretation of Double Funding, Stacking and Bundling and agree with ORR. Include all definitions within legal agreements.

#### **Conservation Covenants**

- 4.10.14. As of September 2022, Conservation Covenants under the Environment Act 2021 are available for use and applicants are welcomed to become responsible bodies. While this is a recent development, it is still an option available for the security of environmental schemes for the remainder of the road period. One missing mechanism which is not available to National Highways to the knowledge of Ground Control is the absence of an ability to secure a positive requirement to carry out the implementation of a management plan on private land which is not directly connected to a highways project. Conservation Covenants provide this option and could

fulfil the mechanisms offered by all of the other options currently in use by National Highways. National Highways have the opportunity to apply to be a responsible body and be the enforcement agency over the carrying out of the positive covenant. It appears prudent to consider this for both third party and National Highways land. If it is seen as a useful mechanism to hold to account commitments on National Highways land towards NNL, consideration for ORR,

or another independent body, whom are intending to become responsible bodies (such as Natural England) would be a sensible independent accountability structure.

- 4.10.15. Recommendation; Consider the use of Conservation Covenants as an available tool to secure sites. Consider who could be an appropriate responsible body to monitor and enforce compliance of a conservation covenant if adopted as an approach.

#### **Financial Control**

- 4.10.16. Finance is made available at the beginning of a scheme and is intended to support the management and monitoring of a scheme for the duration of the agreement on third party land. Within this sum, it is evidenced by the applicant what costs are likely to be incurred for the establishment, management and monitoring of the site. Under this system of transparency and auditability, it is known what capital is required as a minimum to secure the environmental outcome proposed. In areas of the country where private entities propose long term outcomes which are financed prior to implementation and the funds are intended to be put aside for the security of delivery, financial arrangements allow the decision maker and enforcement body to have confidence of delivery. Provision of mitigation grazing land for wildfowl in perpetuity when a development impacts supporting habitat of an internationally important wildlife site and the provision of Suitably Alternative Natural Greenspace (SANGs) for recreation mitigation are some examples of where these financial arrangements are required. By securing the minimum funding required in a bond or holding account which can be accessed by both the landowner and the enforcement body to deliver the management plan and contains finance to cover the cost of enforcement if needed. These minimum funds are required to deliver the schemes for the duration and give confidence to a decision maker that the finance will be distributed responsibly. This gives an extra layer of control of delivery and is more resilient to times of austerity and hardship. It may be a mechanism worth consideration for both third party and Highways owned land projects.

- 4.10.17. Recommendation; Consider if financial security is needed and relevant to ensure delivery of commitments for 30 years both on third party and Highways owned land.

#### **4.11 Resourced**

- 4.11.1. *The program is cost effective and adequately resourced throughout its lifetime to deliver the objectives using delivery methods which are appropriate to the timeframes.*

#### **Value for Money**

- 4.11.2. The current process to identify value for money appears at odds with the cost of delivery. DEFRA's latest market analysis<sup>1</sup> identified biodiversity units to trade at a minimum rate of £20,000/unit and £25,000 where suitable land is limited. NH value for money threshold of approximately £16,000 for third party land is likely to harbour risks of non-delivery and lack of incentive to attract volunteer landowners. Within the £16,000/unit it is expected that the third party manages and monitors the land for 30 years. The delivery of units within the existing network threshold is approximately £22,000/unit although management is only expected for 5 years within that budget. This is a risk to meeting the KPI because many 3rd party schemes are well progressed but conformity with the value for money threshold may deem them unacceptable from both sides. Some of these schemes may be in Category 2 which are well progressed and are given a high level of certainty in the plan. Although with a threshold lower than the DEFRA Market

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<sup>1</sup> Eftec (2021) Biodiversity Net Gain: Market Analysis Study, NR0171

Analysis and significantly lower than current market rates, the current thresholds may be an additional component risk factor to consider in the risk of delivery.

- 4.11.3. Recommendation; Provide evidence for the value for money thresholds and identify why it is different from the Defra Market Analysis. Consider value for money as a risk to delivery in the recategorisation.

#### **Funding for Schemes on National Highways Land**

4.11.4. It has been acknowledged that schemes on land owned by National Highways that are being used to generate biodiversity units towards the NNL in biodiversity target, are only funded for the initial 5 years of establishment. In addition to the uncertainties around the process of embedding management and monitoring commitments into business as usual on National Highways land, the lack of funding and reliance on future undefined budgets is clearly a concern. This was also voiced with some frequency and doubt in the questionnaire feedback. If funding is made available for the implementation of schemes on third party land for the duration of the agreement, the same should be concluded for National Highways owned land. National Highways are likely to be subject to different pressures and risk, such as austerity measures, than those experienced by third party land, but these are none-the-less risks of delivery which should be taken into account when accounting for projected biodiversity value.

- 4.11.5. Recommendation; Secure funding for the duration of the requirement which is a minimum of 30 years. If funding of delivery is uncertain, habitats and targets must be set which takes account of the risk that funding may not be available.

## **5. Conclusion**

5.1.1. National Highways have a difficult task of accounting for impacts of schemes from different programs and which have different processes. They have done a fantastic job of keeping track of progress and have devised a plan which gives confidence that the progress is substantial, considered and quantified. There are however some inconsistencies of approach and gaps in evidence which have been highlighted in this plan and recommendations given. With the depth of review that this contract defined and the resolution of data which has been provided by National Highways it is not possible to conclude if National Highways will meet the KPI target of NNL. The plan is considered to be on Amber status in accordance with the definitions in the introduction of this review due to insufficient information to determine likely achievability.



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