



# **Our response** to Ofgem's RIIO ED2 Draft Determination Consultation Questions

## **Annex 2:** Biodiversity and Natural Capital

August 2022

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## SPEN Biodiversity proposal

SPEN proposed £8m of biodiversity enhancement funding, split between two initiatives, in our RIIO-ED2 business plan. At the RIIO ED2 Draft Determination, Ofgem has only agreed to the funding of £0.5m for biodiversity enhancement initiatives across 25 hectares of our non-operational land and existing linear infrastructure. No funding has been awarded for 500 biodiversity units across our networks on project and programmes.

Our planned approach is supported by our stakeholders. It aligns with the direction of government policy and local planning authorities are starting to require biodiversity net gain within our projects. A lack of funding in this area will severely impact our ability to minimise impacts on and provide net gains for biodiversity.

### 1.1 Ofgem views on our proposals

**Draft Determination:** “*For its Biodiversity proposal, we consider that SPEN did not provide suitable independent cost information to support a high confidence classification for these costs. This was due in part to SPEN not providing sufficient evidence to support its estimated biodiversity unit cost for the type and volume of work proposed to be delivered as well as limited optioneering for how this funding would be spent. Therefore, we are proposing funding £0.5m to cover costs related to biodiversity enhancement alongside existing linear infrastructure and on non-operational land.”*

**Areas of discussion and questioning during 29<sup>th</sup> July SPEN/Ofgem meeting:** *cost justification and project identification; benefits of spend and links to legislation; how a regulatory funding mechanism would work*

Given this feedback this appendix addresses all of the points above by providing further detail and clarification on: methodology – costs and projects; biodiversity benefits; and the proposed regulatory mechanism and ensuring efficient spend.

### 1.2 Methodology: Costs and Projects

**Step 1:** Prior to submission of the RIIO-ED2 Business Plan, we worked alongside [REDACTED] to review each of our Engineering Justification Papers (EJP) against a predefined list of environmental sustainability issues, noting any positive or negative environmental impacts in a review document. The EJP review outlined the measures that would be taken to minimise adverse impacts on biodiversity and natural capital.

The EJP review identified 18 projects that would have a significant impact on Biodiversity during the RIIO-ED2 period;

EJP code	Scheme Name
ED2-LRE-SPM-002-CV1-EJP	Carrington Fiddlers Ferry 132kV Reinforcement
ED2-LRE SPD-012-CV1-EJP	St Andrews Primary reinforcement
ED2-NLR(A)-SPM-001 OHL-EJP	AG Route 132kV Overhead Line Major Refurbishment
ED2-NLR(A)-SPM-002-OHL-EJP	CV Route 132kV Overhead Line Major Refurbishment
ED2-NLR(A)-SPM-007-OHL-EJP	BH Route 132kV Overhead Line Major Refurbishment
ED2-LRE SPM-009-CV1 EJP	Sandbach Primary Reinforcement
ED2-LRE SPD-010-CV1-EJP	Monktonhall/Tranent Primary reinforcement
ED2-NLR(A)-SPEN-001-OHL-EJP	EHV Overhead Lines
ED2-NLR(A)-SPEN-002 OHL EJP	LV / HV Overhead Lines
ED2-LRE SPD-017-CV1-EJP	Stonehouse Primary (New)
ED2-LRE SPD-011-CV3-EJP	Leven Primary Fault Level Mitigation
ED2-LRE-SPM-005-CV1-EJP	Maentwrog-Llanfrothen 33kV Reinforcement

ED2-NLR(A)-SPM-008-OHL-EJP	132kV Tower Refurbishment
ED2-NLR(A)-SPM-004-OHL-EJP	DB Route 132kV Overhead Line Major Refurbishment
ED2-NLR(A)-SPM-005 OHL-EJP	CU Route 132kV Overhead Line Major Refurbishment
ED2-NLR(A)-SPM-006-OHL-EJP	YS Route 132kV Overhead Line Major Refurbishment
ED2-NLR(A)-SPM-009-OHL-EJP	4ZC Route 132kV Overhead Line Major Refurbishment
ED2-NLR(A)-SPEN-003-RES-EJP	Flood Resilience

**Step 2:** Using the list above, [REDACTED] was then commissioned to undertake a subset of high-level Biodiversity Net Gain (BNG) assessments to inform the mitigation planning of a cross sector of our ED2 programme including the installation of new underground electrical powerlines and the development of electrical substations associated with the powerlines. Geographical differences were also taken into account as planned developments across the United Kingdom were selected. Specifically, of the sites within SPEN's ED2 programme BNG assessments were undertaken for five of the projects:

- Carrington Fiddlers Ferry 132kV Reinforcement, Greater Manchester, England;
- Maentwrog-Llanfrothen 33kV Reinforcement, Gwynedd, Wales;
- Monktonhall/Tranent Primary Reinforcement, East Lothian, Scotland;
- Sandbach Primary Reinforcement, Cheshire, England; and
- St Andrews Primary Reinforcement, St Andrews, Scotland

**Step 3:** The high level BNG assessments were undertaken using Biodiversity Metric 3.0<sup>1</sup> and, where the scope of the project allowed, in accordance with the accompanying guidance<sup>2</sup> and best practice principles<sup>3</sup>. The technical note (Appendix 1) sets out the results of the BNG assessments for each site and provides:

- Habitat descriptions and extent in hectares for each habitat present;
- An approximate baseline value of each site in biodiversity units;
- A projection of the biodiversity units required to achieve no net loss, 5% BNG and 10% BNG; and
- An estimated cost calculation to enable SPEN to incorporate the delivery of BNG mitigation within their ED2 programme budget

DEFRA average biodiversity unit costs were used alongside an assessment of biodiversity impact of our ED2 works to calculate the number of units and indicative cost it would take to achieve net gain on a range of projects. The Business Plan unit costs were based on costs proposed in the UK government's 'Biodiversity net gain and local nature recovery strategies: economic impact assessment'<sup>4</sup>. [REDACTED]

[REDACTED]<sup>5</sup> Using DEFRA average costs provides a reasonable cost estimate in this nascent area, however we wish to use ED2 as an opportunity to test net gain on live projects to remove the uncertainty for future price controls, to provide confidence to integrate into BAU project costs

<sup>1</sup> Natural England's Biodiversity Metric 3.0 <http://nepubprod.appspot.com/publication/6049804846366720>

<sup>2</sup> Natural England (2021). The Biodiversity Metric 3.0 – User Guide & Technical Supplement <http://nepubprod.appspot.com/publication/6049804846366720>

<sup>3</sup> Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide (2019)

<sup>4</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/839610/net-gain-ia.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/839610/net-gain-ia.pdf)

<sup>5</sup> Recognising that as the funds are being requested as a UIOLI allowance, then we would only be compensated for actual costs incurred

A summary of the BNG outputs is provided in the table below.

Type Of Unit	Site	Hectares	No Net Loss (units)	No Net Loss cost	5% net gain (units)	5% net gain cost	10% net gain (units)	10% net gain cost
Habitat Units	Carrington Fiddlers Ferry	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Habitat Units	Maentwrog	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Habitat Units	Monktonhall	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Habitat Units	Sandbach	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Habitat Units	St Andrews	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
River Units	Carrington Fiddlers Ferry	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
River Units	Maentwrog	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
River Units	Monktonhall/Tranent	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
River Units	Sandbach	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
River Units	St Andrews	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<b>TOTAL</b>		70.05	153.1	£2,296,500	160.76	£2,411,400	168.4	£2,526,045

**Step 4a:** The above table shows that across the five projects assessed the estimate cost for 10% net gain is £2.5m [REDACTED] for a total of 168 Biodiversity Units created. It also shows the incremental cost between delivering no net loss and 10% gain is less than £300k

Using this data, our Final Business Plan submission extrapolated from the 5 projects to 15 projects ( just under the full 18 projects to reflect the likelihood that some projects will not proceed) and our Final Plan submission therefore requested 500 units and £7.5m to achieve 10% net gain.

**Step 4b:** Following submission of our final plan we have reflected on our experience in the Transmission sector. We recognise that maturity in this area is low as approaches to biodiversity measurement and enhancement are still being developed across the devolved governments. Therefore, uncertainty lies in how we can achieve enhancement across our portfolio of projects, some of which will be challenging due to the distinctiveness of the habitats in many of the areas we work. We now believe that it would be better to proceed with a smaller number of biodiversity projects from a larger pool of potential projects; this will better ensure the most feasible and efficient projects are selected

We therefore believe it would be prudent to reduce our biodiversity target by a third which would take the number of projects we are targeting to 10, and reduce our biodiversity unit target to 337 units. This takes our costs to £5.6m (which includes funding of £0.5m to procure specialist biodiversity services to support the delivery of our plans, as this resource had been omitted from our final plan submission).

In addition, our amended proposal will see the development of our Biodiversity Action Plan and pilots of biodiversity enhancement initiatives across 25 hectares of our non-operational land and existing linear infrastructure during the first years of RIIO-ED2. Using the information and lessons learned from this work, we will then implement the delivery of the 337 Biodiversity Units across 10 ED2 projects.

### 1.3 Benefits

The air we breathe and the food we eat all rely on biodiversity. As noted by Ofgem in the Draft Determination, "Many parts of the UK's natural environment are in decline As outlined in the Economics of Biodiversity: The Dasgupta Review report, biodiversity is declining faster than at any time in human history and this poses a danger to the prosperity of current and future generations" <https://www.gov.uk/government/publications/final>

[report-the-economics-of-biodiversity-the-dasgupta-review..](#) Our planned approach aligns with the direction of government and local planning policy, recognising that steps need to be taken to address this danger.

In addition to increasing biodiversity around our projects, SPEN consider there to be a benefit in terms of the natural capital value added. Natural capital refers to the world's stock of natural resources, and the value these offer to society in the form of a wide range of financial, social and health benefits.<sup>6</sup> For example, natural capital in the form of urban green spaces, planned recreational areas and forests, wetlands, rivers, lakes etc is important to our physical and mental wellbeing. Many of these benefits could be derived from types of projects SPEN are proposing to deliver. Approaches to measure natural capital benefits are still being developed across the sector, however, once these are mature it is possible that SPEN could look to carry out further assessments on the wider benefits delivered through our biodiversity initiatives.

## 1.4 Regulatory mechanism

As our understanding of the ED2 regulatory framework has developed further and the Licence Drafting Working Group has discussed various uses of the UIOLI mechanism going forward, we believe that a UIOLI mechanism would be the most appropriate way to fund our biodiversity proposal and ensure only costs for units delivered are recovered.

We would mirror the same approach as other UIOLI allowances with clear definitions for the biodiversity units and unit expenditure which link to DEFRA definitions and economic impact assessments.<sup>7</sup> In total, the UIOLI allowance would be capped for the 5 years as outlined in the table below, and any unspent allowances would not be awarded.

10 projects	Original Proposal for ED2	Updated Proposal for ED2	Status
Biodiversity Units	500	337	Updated Proposal
Cost projects/programmes	£7,500,000	£5,052,000	Updated Proposal
Specialist Biodiversity Support Services		£500,000	Updated Proposal
Costs Non-Op/Existing linear infrastructure	£500,000	£500,000	Accepted in the DD
<b>Total</b>	<b>£8,000,000</b>	<b>£6,052,000</b>	

Split by total costs	Total Cost	SPM	SPD
Cost - projects/programmes & Support Services	£5,552,000	£3,392,888	£2,159,111
Costs - Non-Op/Existing linear infrastructure	£500,000	£305,556	£194,444
<b>Total</b>	<b>£6,052,000</b>	<b>£3,698,444</b>	<b>£2,353,556</b>

## 1.5 Deliverability

We have commenced early work to ensure that our commitments are deliverable across the ED2 period, undertaking the following actions:

- Presentation workshops held across our distribution licence areas to raise awareness of our biodiversity ambition and the steps to achieve this. These also served as early engagement across the business to understand the additional key people and processes to be involved in delivery.
- Biodiversity working group established with management and operational colleagues who have commenced reviewing the ED2 project plan to further prioritise projects for biodiversity improvements.

<sup>6</sup> [What is natural capital? \(naturalcapitalforum.com\)](#)

<sup>7</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/839610/net-gain-ia.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/839610/net-gain-ia.pdf)

- Addition of further detail in ED2 tenders on the type of surveys required to run the DEFRA biodiversity metric

Furthermore, our commitment of 337 biodiversity units, rather than stipulating specific sites, allows us to make cost effective decisions in the project design and development phase of where net gain can be delivered on-site creating the greatest value to the ecosystems and community in the project locale as well as providing best value to consumers. We are confident that we have a robust plan in place to ensure cost effective delivery

The addition of £0.5m of funding for specialist biodiversity support services will ensure that the projects are delivered in the most efficient and economical way in line with best practice. This support will also assist with the development of our biodiversity action plan and approach, train and upskill project and programme teams to increase business expertise in this area to move towards net gain as BAU activity.

[REDACTED]	[REDACTED]	[REDACTED]
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<sup>8</sup> <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

<sup>9</sup> <https://www.legislation.gov.uk/asp/2019/13/contents>

<sup>10</sup> <https://dns.planninginspectorate.gov.uk/wp-content/uploads/projects/DNS/3234121/DNS-3234121-001793-MMC254%20MOR-POL-DOC-057%20WG%20Planning%20Policy%20Wales%2010th%20Edition.pdf>

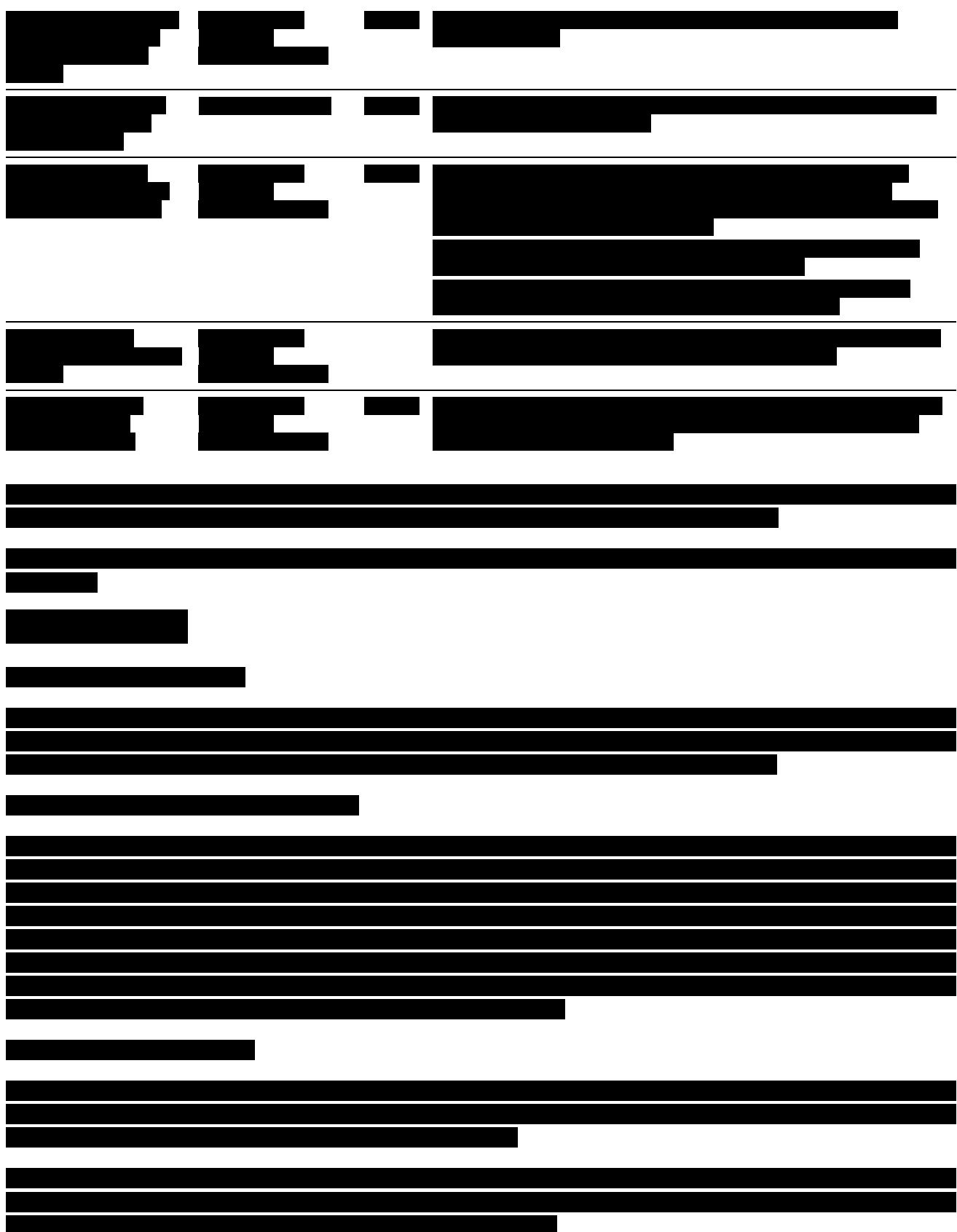
<sup>11</sup> Environment Bill (2019). The House of Commons, 15 October 2019.

<sup>12</sup> Natural England's Biodiversity Metric 3.0 <http://nepubprod.appspot.com/publication/6049804846366720>

<sup>13</sup> Natural England (2021). The Biodiversity Metric 3.0 – User Guide & Technical Supplement

<http://nepubprod.appspot.com/publication/6049804846366720>

<sup>14</sup> Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide (2019)



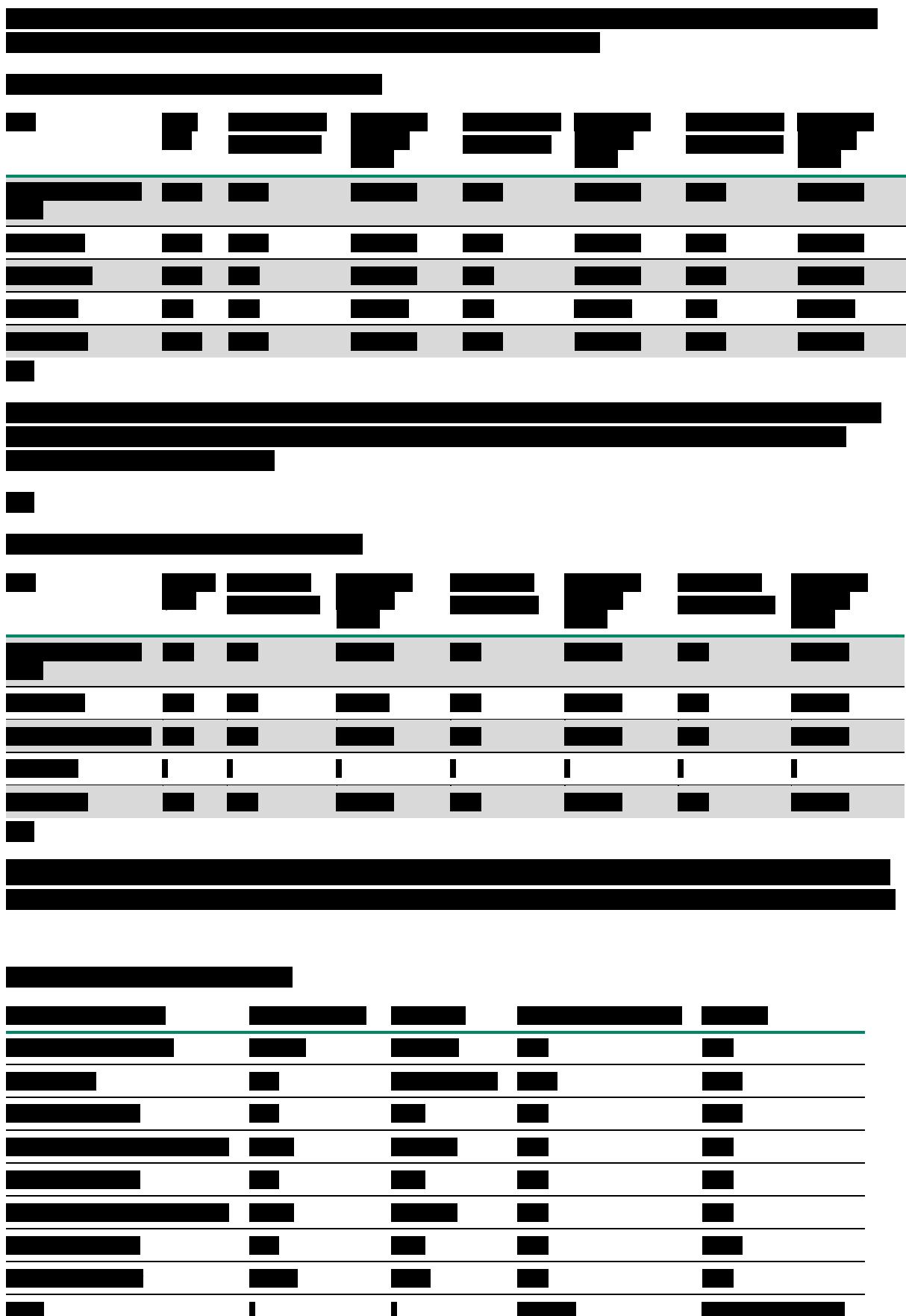
<sup>15</sup> <https://land.copernicus.eu/pan-european/corine-land-cover>

<sup>16</sup> <https://ukhab.org/>

<sup>17</sup> Natural England (2021). The Biodiversity Metric 3.0 – User Guide & Technical Supplement  
<http://nepubprod.appspot.com/publication/6049804846366720>

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<sup>18</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/839610/net-gain-ia.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/839610/net-gain-ia.pdf)  
<sup>19</sup> [https://assets.publishing.service.gov.uk/media/6034ef5ee90e076603f2ea7/Cost estimation for habitat creation.pdf](https://assets.publishing.service.gov.uk/media/6034ef5ee90e076603f2ea7/Cost_estimation_for_habitat_creation.pdf)



<sup>20</sup> Calculated by dividing the total estimated cost for offset by the total area of all the projects assessed

<sup>21</sup> Calculated by dividing the total estimated cost for offset by the total length of river (m) across all the projects assessed and multiplying by 1000



