# A framework for evaluating enhancement quality as part of the EIA process

#### **Abstract**

This paper presents a framework for evaluating the quality of enhancement of positive impacts in Environmental Impact Assessment Reports (EIARs). The 'Enhancement Quality Testing Framework' created for this study is structured around four performance indicators to evaluate enhancement measures detailed in EIARs that focus on: Inclusion; Timing; Thoroughness; and Responsibility & Monitoring. In this way a holistic view of enhancement has been taken to create a framework to evaluate enhancement quality. The framework was tested in documentary research of 24 Scottish EIARs published between 2015-2020 (including relevant documents submitted as part of the planning application, such as Environmental Management Plans). The results highlighted a wide recognition of enhancement (70%) amongst the EIAR evaluated. However, the majority of grades assigned across the performance indicators for the reports examined fell within 'Deficient' or 'Not Present'. The framework could be used and adapted by developers, consultants, decision makers and academics to provide insight, and to introduce accountability, regarding the quality of enhancement integration in EIA practice.

#### **Keywords**

Enhancement; Deliberate benefits; Environmental Impact Assessment; Net-Gain; Biodiversity; Monitoring; Mitigation; Best Practice

#### 1. Introduction

Environmental Impact Assessment (EIA) is an important process for ensuring development is managed holistically and in harmony with the natural environment and the needs of local communities. Traditionally, definitions of EIA place emphasis on the avoidance of negative impacts (e.g. EU Directive 2014/52/EU, article 5, para 1(c)). However, the recognition of the importance of the enhancement of positive impacts as part of impact assessment and planning processes is growing (e.g. Esteves and Barclay, 2011; Fischer et al, 2019; Gibson; 2006; IEMA, 2015; João et al., 2011; Rajvanshi et al., 2011).

This paper uses the João et al. (2011, p. 171) definition of 'enhancement' which is the "deliberate attempts taken in the design and subsequent phases of projects, policies, plans and programmes to ensure the success of a wider range of direct and indirect benefits that could possibly flow from the project or [...] all forms of planned interventions, including plans, programmes, policies and strategies". Or, put more simply, "enhancement involves the development of beneficial impacts" (Glasson and Therivel, 2019, p. 4). In contrast to mitigation of negative impacts, which is a requirement, enhancement of positive impacts can be viewed as an opportunity for the benefit of communities and the biophysical environment.

Enhancements often seek to improve environmental aspects, for example, by using environmental or conservation management plans to specify measures for the favourable conservation and management of habitat areas so as to benefit specific species. However, projects can also be used as a delivery mechanism for enhancements, for example by improving recreational and amenity paths, or access to archaeological sites, or by investing in community funding initiatives.

Given the importance and growing recognition of enhancement within legislation, policies and best practice principles (see section 2), it is important that more empirical evidence is gathered as to how widely or how well enhancement is utilised within EIA practice. As a result, this paper presents a framework for evaluating the quality of enhancement measures in EIA processes. The proposed Enhancement Quality Testing Framework is structured around four indicators that focus on (see section 4.1):

- Inclusion: Was enhancement included?
- Timing: When will enhancement be implemented, and benefits realised?
- Thoroughness: How well thought-out and developed are enhancements?
- Responsibility & monitoring: Who takes responsibility for enhancement and are commitments specified in the EIA follow-up?

Documentary research of 24 Scottish EIA Reports (EIARs) was used to test the framework. This included relevant documents submitted as part of the planning application which are commonly used mechanisms for implementing enhancement, such as Habitat Management Plans (HMP) and Construction Environmental Management Plans (CEMP).

The paper starts with a discussion of the importance of enhancement and the need for an enhancement quality test. It then presents the choice of the national case study used to test the Enhancement Quality Testing Framework and the methodology used. This is followed by a discussion of the results, and ends with conclusions and recommendations.

### 2. Importance of enhancement and the need for an enhancement quality test

A wide range of authors have been advocating for more enhancement, positive impacts and net gain for many years. The journal Impact Assessment and Project Appraisal (IAPA) had a special issue in 2011 dedicated to enhancement, that combined both academic and practitioner perspectives, and covered SEA, EIA, SIA and HIA (João et al., 2011). The International Association for Impact Assessment (IAIA) asserts that "the enhancement of positive impacts is an issue of growing importance and should be a priority of IA" (Jesus, 2013, p.1). While Gibson (2006, p.172) eloquently argues that "minimization of negative effects is not enough; assessment requirements must encourage positive steps towards greater community and ecological sustainability, towards a future that is more viable, pleasant and secure".

Furthermore, there is also a wealth of professional guidance which promotes the use of enhancement as best practice. For example, Scotland's natural heritage agency 'NatureScot' (previously called Scottish Natural Heritage) highlights the importance of *genuinely* enhancing in their 'Environmental Impact Assessment Handbook' (Scottish Natural Heritage, 2018). Moreover, the increasing traction of Biodiversity Net Gain (BNG) (e.g. Dasgupta, 2021) has also seen guidance documents published on how it can be applied to development. For example, 'Biodiversity Net Gain: Good Practice Principles for Development' (CIRIA, CIIEM, IEMA 2016).

The importance of evaluating the quality of EIA Reports is not new. An Environmental Statement Review Package developed by Colley and Lee in 1989 (Lee and Brown, 1992) was adapted by UK IEMA (the Institute of Environmental Management and Assessment) from the 1990s up till 2011, when it was replaced by the EIA Quality Mark (Bond et al. 2017).

IEMA, that started as the Institute of Environmental Assessment in 1990, was established to promote best practice standards in environmental management, auditing and assessment, and the voluntary assessment of the quality of EIA Reports is an important part of their work. The IEMA EIA Quality Mark continues the work that started in the early 1990s, but has broadened the evaluation to also include EIA management and team capabilities, and the yearly improvement of EIA practice (Bond et al. 2017).

The evaluation of EIA Reports proposed in this paper is different as it focus exclusively on enhancement. Enhancement requires a mind-set focusing on opportunities, allowing for the mental shift from "Environmental *Impact* Assessment" to "Environmental *Opportunity* Assessment". Partidário (2012, p.1), in the first Fastips of the IAIA on Impact Assessment (IA), states that "IA has the capacity to magnify the positive effects of development by turning problems into opportunities". The links between EIA and project design are critical in this mind shift, as it has been argued for a long time (e.g. Brown and Hill, 1995; McDonald and Brown, 1995).

It is important to recognise that there is a wide range of terms that can be associated with enhancement and not just the word "enhancement" on its own. Box 1 lists a series of possible direct and indirect terms related to enhancement. These terms were also used to identify if and where enhancement was considered in the EIARs studied (see section 4.2).

**Box 1.** Direct and indirect terms related to enhancement (also used in method – see section 4.2)

Direct Terms	Indirect Terms
'enhancement'	'improved biodiversity'
'enhance'	'improved conservation'
'net-benefit'	'habitat creation'
'biodiversity net-gain'	'rehabilitation'
'net gain'	'improved natural/cultural heritage'
'new benefit'	'job creation'
	'health promotion'
	'add value'

Globally, there are continued profound environmental and socio-economic challenges; the climate crisis, pervasive loss of biodiversity, and economic turmoil in the wake of the COVID-19 pandemic and recent conflicts in Ukraine. In the UK, it is well documented that it will be cheaper in the long-term to conserve and enhance nature, to the sum of £16 billion a year (Roxburgh et al., 2020), rather than continue on the current trajectory. This is also true globally, with the services that nature provides estimated to be more than one and half times the size of global GDP (OECD, 2019).

As such, the opportunity to use infrastructure investment and new development to stimulate economic recovery should also address environmental and social challenges by creating additional benefits as part of project deliverables. The EIA process can be viewed as a significant opportunity to deliver these benefits, especially if considered as an aggregate system, where positive impacts could accrue over multiple projects like a cumulative positive impact. João et al. (2011) make the argument for enhancing across all forms of Impact Assessment and demonstrated in their paper an appetite for greater use of enhancements among IA practitioners.

Additionally, at a more granular level, enhancements can help a proposal be looked upon more favourably for planning consent, thus perhaps saving time and resources (Donkin,

2017). As a result, there are reputational benefits for developers to promote additional environmental and social gain as part of their projects. According to Glasson and Therivel (2019, p. 141), "benefit enhancement is becoming an increasingly important element in EIA". These can be managed with impact benefit agreements (IBA) which can help achieve social license to operate and more equitable sharing of both benefits and project costs (e.g. Esteves and Barclay, 2011; Vanclay et al., 2015; Cascadden et al., 2021).

In terms of evaluating the extent of enhancement within IA, a study carried out by McCluskey and João (2011) assessed and graded the consideration of enhancement of positive impacts in Scottish Strategic Environmental Assessment (SEA) reports. The research highlighted poor promotion and integration of environmental enhancements within the SEA process, with 9 of 15 Environmental Reports (ER) studied scoring 'minimal' or 'absent' on a four-point scale. Although McCluskey and João's paper provides a good framework for the grading and evaluation of enhancement, it is important to distinguish that their research pertained to strategic actions, whilst this paper focusses on individual EIA project developments.

To the best of the authors' knowledge and understanding, there is no method for evaluating the quality of proposed enhancements beyond a recognition that they have been included in an EIA. Given the opportunity for enhancement to be used as a means of bolstering a project's image, it is important that additional benefits are not used as a tick box, or 'cherry on top' type measure, without proper consideration. This would largely negate the fundamental purpose of enhancing, which is to create legitimate, additional biophysical and/or socio-economic benefits.

As a result, it is important to have a robust means of evaluating how EIA proposes to develop and manage enhancements. Being able to evaluate enhancement quality is paramount to ensuring a transparent and accountable EIA process. Otherwise, there is a risk that the use of enhancements is an afterthought, or perhaps even used as a way of increasing a project's 'acceptability', without the intention to deliver real benefits.

### 3. Choice of a national case study to test the Enhancement Quality Testing Framework

Scotland provides an appropriate case study for assessing how the 'Enhancement Quality Testing Framework' performs. The latest Scottish EIA regulations were transposed from EU Directive 2014/52/EU and are therefore similar in foundation to many other EU nations, meaning the methods employed by this study are repeatable elsewhere. The Scottish Government's 'Planning Advice Note' (PAN) 1/2013 provides an overview of Scotland's EIA procedures. EIA in Scotland aims to properly understand the likely environmental effects of a project, and to avoid, reduce or offset those impacts before consent is granted. There is, however, no legal requirement to enhance as part of the EIA process.

Enhancements are recognised as an important part of EIA and planning practice, despite the lack of a regulatory requirement. For example, there are calls for Scotland to follow England in mandating biodiversity net-gain (BNG) as part of new development (CIEEM, 2019), and in fact many high-profile developers are already taking important steps to securing enhancements without any legal obligations (e.g. Scottish Power Renewables, 2020; Scottish and Southern Electricity Networks, 2019).

Additionally, planning policy and spatial strategies in Scotland make direct provision for enhancing as part of the development process. At a national level this is manifest through the National Planning Framework (NPF), and Scottish Planning Policy. For example, the forthcoming NPF4, which will supersede the current NPF3 once adopted, highlights that more is needed "to go further in securing positive effects for biodiversity from development" as a core objective of the framework (Scottish Government, 2020, p. 30). These national aims have ultimately trickled down so that regional and local planning strategies also encourage the enhancement approach (see Table 1).

Table 1. Examples of national, regional and local planning policy in Scotland which specify need to 'enhance'.

Level	Policy example	Reference
National	Scottish Planning Policy (2014)	"[The planning system should] conserve and enhance
		protected sites and species [] protect and enhance
		semi-natural woodland". (Para 194).
Regional	Glasgow and the Clyde Valley Strategic	"[The plan aims] to deliver multiple benefits and
	Development Plan (2017)	opportunities for [] <i>enhancement</i> of biodiversity".
		(Para 8.3).
Local	Glasgow City Development Plan (2017)	"it is critical that new development should enhance,
		wherever possible, the functionality, quality,
		connectivity and accessibility of the Green Network,
		and its role as green infrastructure." (Para 8.2).

These policies are perhaps indicative of a wider international appetite for enhancing as part of the development process. For example, the European Commission (2020) has adopted its 'EU Biodiversity Strategy for 2030 and associated action plan'. As part of this strategy, the principle of net-gain is strongly embedded, whereby nature should receive more than is taken. While at a global level these policies are also underpinned by the United Nations' Sustainable Development Goals (SDGs), which are recognised as being a main contemporary driving force for delivering environmental and social benefits (Partidário and Verheem, 2019).

Undoubtedly, there is a desire to 'enhance', both in Scotland and internationally. As a result, a robust means of evaluating the quality of enhancements within EIA Reports is needed to ensure measures are properly included and developed, as discussed in this paper.

#### 4. Methodology

This section presents the methods used to assess the Enhancement Quality Testing Framework of documentary research of 24 EIA Reports (EIARs) submitted between 2015-2020. Section 4.1 establishes the framework developed for this study and section 4.2 rationalises the application of the framework to documentary research of 24 Scottish EIARs. Finally, section 4.3 discusses the use of the framework for minimising subjectivity.

4.1 The 'Enhancement Quality Testing Framework' to evaluate EIA Reports
The Enhancement Quality Testing Framework is a means of evaluating how well EIA
Reports include and develop enhancement measures relative to a set of criteria. The
framework is structured around four core 'Performance Indicators' in which to evaluate
enhancements. The four Performance Indicators and their purpose with respect to evaluating
enhancement quality are defined as follows:

- Inclusion: Was enhancement included?
- Timing: When will enhancement be implemented, and benefits realised?
- **Thoroughness**: How well thought out and developed are proposed enhancement actions?

• **Responsibility & Monitoring**: Who takes responsibility for enhancement and are commitments specified in the EIA follow-up?

Each indicator represents an aspect regarded as central to integrating enhancements into EIA proposals and were formulated using existing literature and best practice guidance (e.g. João et al., 2011; Rowan and Streather, 2011; IEMA, 2015; Scottish Natural Heritage, 2018). This framework is a conformance-based approach focusing on *outcomes*. Laurian et al. (2004) discuss how a conformance-based approach (as opposed to a performance-based approach focusing on *processes*) is preferable and more relevant to planning practitioners when evaluating plan implementation. In the case of enhancement, what matters above all, is that an enhancement outcome is achieved.

In the case of Scotland, the proponent ordinarily takes responsibility for proposing and detailing enhancements in their EIA application documents. Often, statutory bodies and other stakeholders will provide recommendations on matters such as mitigation and enhancement. However, it should be noted that stakeholder responses and opinions have not been evaluated in the documentary research, as responses should have been considered and integrated into the final EIAR at application stage.

Each indicator contains associated questions, as illustrated in Table 2. The questions are answered by searching EIA application documents of the proponent (including relevant technical appendices), allowing a qualitative score to be assigned to each indicator.

**Table 2.** Performance indicators and associated questions used to evaluate how enhancement is included and developed in EIA Reports.

Performance				
indicator	Associated questions			
1. Inclusion	1.1. Is there enhancement measures cited in any of the EIA			
1. Iliciusion	documentation?			
	1.2. How clear is it within the EIA that enhancement has been considered			
	and developed? How clear is it a legitimate attempt at creating new			
	benefits?			
	2.1. Is it evident which phase of the development (e.g. preconstruction,			
2. Timing	construction or operation) the enhancement(s) will be implemented?			
	2.2. Are timelines (e.g. short, medium, or long term) provided regarding			
	when benefits of the enhancement will be achieved?			
	3.1. Is it clear geographically where the enhancement(s) is directed. For			
3. Thoroughness	example, is it within the development footprint or does it extend			
Ü	beyond?			
	3.2. Is the enhancement measure(s) directed towards a certain species of			
	flora/fauna, habitat, area of land, group of people or aspect of local			
	community?			
	3.3. Is there a description of how the enhancement measure will be			
	implemented or carried out? What actions are being planned to try			
	and achieve the enhancement?			
4. Responsibility	4.1. Is it clear who is responsible for implementing, managing, paying			
& monitoring	for and monitoring the enhancement measure? Is there mention of			
8	any partnerships or consultees involved with the enhancement?			
4.2. Is there detail of follow-up and monitoring of the enhancer				
	implementation? If so, how long does this extend?			

Proposed measures which fit the definition of enhancement provided in section 1 were regarded as suitable for evaluation. Where such measures are identified in an EIAR, a description of the enhancement is noted, alongside a reference to the relevant document and

section where it was discussed. The enhancement can then be evaluated using the four performance indicators and their associated questions, with four possible grades available for assigning to each indicator: comprehensive, reasonable, deficient and not present (see Box 2).

Box 2. Grades and their descriptors used to evaluate the consideration and development of enhancement.

Comprehensive (A) – This grade shows significant and thorough consideration of enhancement actions within the EIA process and is communicated clearly within the EIAR or supporting documentation. There is a clear pursuit beyond mitigation of adverse impacts to include additional measures which promote direct or indirect positive outcomes. There has been good consideration overall of when the enhancement will be implemented; when benefits will be realised; where/who the beneficiaries of the enhancement are; and who is responsible for implementing, funding, managing and monitoring the actions over its anticipated lifetime.

Reasonable (B) – This grade indicates that clear attempts have been made to develop and include enhancement measures as part of the EIA and they have been considered to a satisfactory level. Sufficient detail overall has been provided regarding when the enhancement will be implemented; when benefits will be realised; where/who the beneficiaries of the enhancement are; and who is responsible for implementing, funding, managing and monitoring the actions over its anticipated lifetime. However, the EIA may be lacking in one or two indicators and not developed to its fullest potential. Greater consideration could be given to enhancement, but it is overall considered well.

**Deficient (C)** – This grade indicates that measures which seek to create additional positive benefits have been cited in the EIAR or supporting documentation, but overall, they were lacking, undeveloped, or not considered to a significant degree. The actions may be more akin to compensatory mitigation, rather than a deliberate attempt to create new benefits and were perhaps not considered early enough in the process. Little consideration has been given to when the enhancement will be implemented; when benefits will be realised; where/who the beneficiaries of the enhancement are; who is responsible for implementing, funding, managing and monitoring the actions. More consideration is needed if the actions are to be implemented successfully and benefits achieved.

**Not Present (D)** – The EIAR or supporting documentation failed to include any actions which aim to create additional positive benefits. The term enhancement may be mentioned but does not relate to a specific action as part of the EIA.

4.2 Evaluating the Enhancement Quality Testing Framework using 24 EIARs

The Enhancement Quality Testing Framework was employed in documentary research of 24

Scottish EIARs, spanning multiple development categories. A spread of developments was necessary given the varied potential for different sectors to develop enhancements. For example, the onshore renewables sector has been recognised in the UK as a strong performer with regards to creating additional benefits (Scottish Natural Heritage, 2016), whilst enhancements may be underutilised in other developments. Whilst this paper does not analyse results obtained in terms of sectoral differences, multiple development types were evaluated for this reason. Four primary development categories were identified, and equitable consideration was given to each category, with six EIA projects identified from each (Table 3).

**Table 3.** Primary development categories identified for evaluation using the Enhancement Quality Testing framework in documentary research of 24 EIARs published between 2015-2020.

Development category	Development sub-type	Number EIARs	Description of development category
Transport	Road	6	Proposals for construction, upgrades, or maintenance of road schemes.
Renewable	Onshore wind	3	Construction, extension or alterations to
energy	Offshore wind	1	renewable energy generating projects.
	Tidal power	1	
	Hydro power	1	
Non-renewable	Oil & gas	1	Non-renewable energy generating or
power	Electricity transmission	5	transmission projects, e.g. gas pipelines or
			electrical transmission lines.
Residential and	Residential and housing	1	Applications relating to residential, industrial,
other	Redevelopment	2	mixed use, redevelopment or science and
development	Mixed use	2	innovation developments.
<del>-</del>	Science and technology	1	

Selected projects were examples across the four development categories from the most recent EIARs available (2015-2020), and do not aim to be a statistical sample based on the total number of EIARs in each year as that figure is unknown. This recent time period makes provision for up-to-date legislation, planning policy and professional guidance (see sections 2 and 3). All of the evaluated EIARs are published in the public domain and were sourced via the relevant consenting authorities' websites. The proposals evaluated span the work of 17 principle environmental consultancies, and 12 different developers. This gave a wide range of different consideration of enhancement across developers and consultants.

Each EIAR (including any relevant technical appendices such as Habitat Management Plans (HMP), Construction Environmental Management Plans (CEMP), Masterplans, and Ecological Appraisals) were read and searched for discussion of enhancement actions. The documents were sourced, read and tested against the framework by the principal author, who has working knowledge of the EIA process and experience of working on EIA development. Direct terms were used to identify if and where enhancement was considered in the EIAR, with related terms helping to refine enhancement to more specific actions (see Box 1 in section 2). Each Report was then evaluated using the Enhancement Quality Testing Framework, as outlined in section 4.1.

#### 4.3 Use of the Framework for Minimising Subjectivity

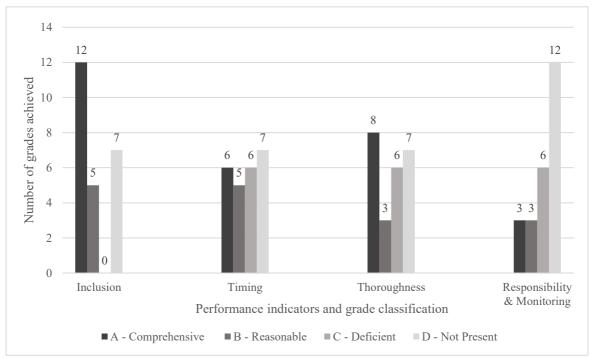
The framework was developed and tested, as explained in sections 4.1 and 4.2, and it seeks to maximise objectivity by scoring relative to a set of defined criteria, thus ensuring an equitable approach to each EIAR. However, it is recognised that evaluating EIA reports is an inherently subjective process. This is especially true when assessing how well enhancement measures have been included and developed, given the lack of agreed criteria for what constitutes a legitimate enhancement above and beyond mitigation of adverse impacts.

The framework helps to provide objectivity when multiple reports are being reviewed by the same person, by ensuring each report is considered equitably. However, it does not fully prevent or account for differences in opinion and interpretation of environmental enhancement between individuals. For example, one individual might perceive an action to be more ambitious, better developed or more clearly an attempt to enhance compared to another reviewer. Therefore, to fully account for this, it would be of benefit that the framework is independently used by two reviewers with a common grade agreed, similarly to the recommendation of Lee and Brown (1992) in their Environmental Statement Review Package. That said, the EIA Quality Mark uses a single reviewer "who follows criteria guidance and attends regular standardisation meetings across the review panel to ensure consistent interpretation" (Bond et al. 2017, p. 164), and therefore a single reviewer process is also possible.

#### 5. A Framework for Evaluating Enhancement Quality in EIA Practice

This section presents the results of the documentary research of 24 Scottish EIARs using the Enhancement Quality Testing Framework. Overall, the use of this framework allows for an assessment of *how* enhancement actions are developed across multiple criteria, thus providing insight as to what specifically has been done well, and what could be improved to ensure better consideration and development.

The sample of the Scottish EIARs evaluated demonstrated that the indicator of 'Inclusion' scored a high proportion of 'A' and 'B' grades, across the rest of the indicators the majority of grades awarded were that of 'C' and 'D' (see Figure 1).



**Figure 1.** Number of grades awarded across four performance indicators for how well enhancement was considered and developed in 24 EIA Reports submitted in Scotland between 2015-2020.

The total number of grades assigned for the documentary research are broken down in Table 4. It demonstrates that whilst there were a good proportion of Comprehensive and Reasonable grades awarded (45), a higher number of assigned grades across the indicators were that of Deficient or Not Present (51).

**Table 4.** Distribution of number of grades in each grade category.

Grade	Number Awarded
A - Comprehensive	29
B - Reasonable	16
C - Deficient	18
D - Not Present	33

The comparatively large proportion of 'Comprehensive' grades is promising and illustrates that in the EIARs examined, some developers are taking legitimate steps to create meaningful additional benefits. However, as illustrated in Figure 1, the majority of Comprehensive grades were awarded through the indicator of 'Inclusion' and does not necessarily reflect how well developed the action was (discussed further in section 5.1).

Furthermore, the lack of any empirical baseline with regard to the quality of proposed enhancements in EIA practice ultimately make the results open to interpretation. The majority of 'C' and 'D' grades makes it is reasonable to suggest that within the EIARs assessed, enhancements could be better included and developed. These results are congruent with international findings. In an assessment of Danish EIA Reports, Larsen *et al.* (2018) found that enhancement was the least used category of the mitigation hierarchy.

An example of the process used in the Enhancement Quality Testing Framework is summarised in Appendix A for one evaluated EIAR in the documentary research: Table A1 shows how enhancement measures were described and referenced; Table A2 summarises the data; Table A3 summarises how the grades were assigned to each indicator; and Figure A1 depicts the overall performance in a radar chart. This example is a summarised form of the data gathered for one EIAR in this study. Complete data, showing in detail how grades were awarded for the total 24 EIAR evaluated, can be found in the supplementary information associated with this paper (codified by EIAR-1 to EIAR-24).

Overall, the framework proved to be a holistic means for evaluating enhancement with respect to not only to *what extent* enhancements are considered, but also *how well* additional benefits are developed across multiple criteria. The framework allows for equitable and consistent consideration of how multiple EIARs commit to and cultivate enhancements. This largely helps eliminate bias in results given that there is a consistent set of criteria for marking. The framework allows the user to assess not only what the desired outcome of an enhancement is, but where, when, and how additional benefits might be implemented and who they will impact. Furthermore, the framework recognises the importance of developing comprehensive monitoring and follow-up commitments to ensure benefits are realised, and unintended consequences avoided (see section 5.3).

Whilst consistency is a strength of the framework, it is recognised that perhaps the Performance Indicators could prove restrictive. This is due to the fundamental challenge that enhancement is broad, often subjective, and is dependent on the circumstances of the particular project requiring an EIA. It was noted during testing that if the description of enhancement did not conform to the criteria outlined there was a risk that a poor grade could be assigned. Additionally, enhancements can often be measures separate to the EIA (João et al., 2011), and as a result may not be fully detailed in the EIAR or supporting documents. In this scenario, the framework would not account for enhancements implemented but not discussed, or not discussed to the fullest extent, in the final submitted application (see recommendation in section 6).

However, given the inherent subjectivity involved with evaluating *how well* enhancements are developed, it is nevertheless vital to have a structured and robust approach, as is provided by the framework.

The results presented in Figure 1 are further discussed relative to each indicator in sections: 5.1 inclusion of enhancement; 5.2 timing of enhancement; 5.3 thoroughness of proposed enhancement (where present); 5.4 responsibility and framework for monitoring enhancement.

#### 5.1 Inclusion of enhancement

It was established that in the 24 Scottish EIARs examined, 17 of the reports proposed measures which were interpreted as "enhancement", equating to 70% of the EIARs evaluated. This score does not reflect on the level of detail or quality of proposed enhancement, simply that the proponent has recognised enhancement in their application documents. This is a valuable baseline to affirm, as subsequent insight is dependent on the extent to which enhancement is recognised and used.

Of the EIARs evaluated, 12 made very clear and specific reference to an intention to enhance or create additional benefits, and as a result were awarded 'Comprehensive'. A further five EIARs demonstrated a greater level of ambiguity regarding the intention to enhance, for

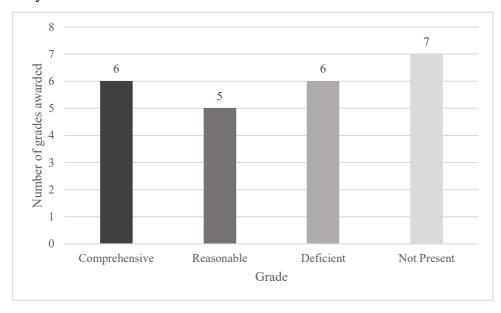
example reference to an indirect term, as shown in Box 1, and as such were awarded Reasonable. The remaining seven EIARs did not cite any measures or committed actions which could be interpreted as enhancement.

Data seems to show that those involved in the preparation of the EIA Reports studied are aware of enhancement measures and are perhaps keen to at least be seen to integrate them into their projects. These results perhaps demonstrate an improvement, at least in the extent to which enhancement is recognised within environmental assessment processes given that McCluskey and João's (2011) evaluation of the extent of enhancement found 60% to be 'minimal' or 'absent' (although this was for SEA and not EIA). The results may represent an environmental assessment system, at least in Scotland, where enhancement is increasingly recognised by proponents and consultants, although more research is needed to re-evaluate the situation with regards to SEA.

#### 5.2 Timing of enhancement

As with mitigation of adverse impacts, specificity of enhancement is crucial in ensuring proposed actions are carried through to construction and operation and are not simply empty commitments. As part of specificity of enhancement, the action needs to be suitably defined regarding its timelines, to ensure contractors and others involved post consent are clear when, and how measures will be implemented and secured. As a result, timing of enhancement was regarded as being a core tenet of enhancement quality, and evaluated using the framework.

Figure 2 shows that of the 17 EIAR which cited enhancement, results were varied regarding definitions for when proposed enhancements should be implemented and when benefits are likely to be felt.



**Figure 2.** Number of grades awarded in terms of timing of enhancement in 24 EIA Reports submitted in Scotland between 2015-2020.

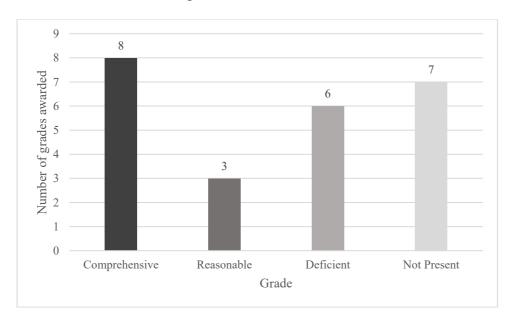
Whilst 13 EIARs either poorly defined timelines, or not at all, for enhancement, 11 included a reasonable or comprehensive discussion of when benefits are anticipated to be implemented and effects felt. In the instances of well-defined enhancement timelines, EIARs often made use of additional documents and mechanisms such as EMPs and HMPs. The use of separate

technical appendices and better performance with respect to the framework is a trend that was observed throughout the documentary research and is further discussed in the next section.

#### 5.3 Thoroughness of enhancement

Similar to well defined timelines, clear and specific enhancement desires are fundamental to their success. Given this, the indicator of 'thoroughness' is designed to evaluate how well thought out and developed an enhancement action is with respect to 1) its geography, 2) its intended recipient or beneficiary, and 3) the measures and steps to be taken to implement the action.

Figure 3 demonstrates that of the 17 EIARs which cited enhancement desires, results were varied regarding how specific and well developed those enhancements were in respect to the three measures of thoroughness outlined above. These are similar results to those observed for the indicator of 'Timing'.



**Figure 3.** Number of grades awarded in terms of thoroughness of enhancement in 24 EIA Reports submitted in Scotland between 2015-2020.

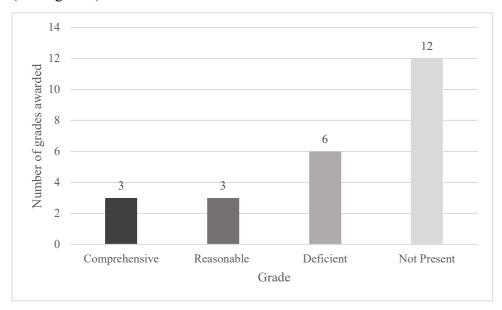
There was a disparity observed in that an EIAR either tended to be very specific and descriptive about the proposed enhancement, or deficient or absent altogether. This is reflected in Figure 3 where only three EIARs attained a 'Reasonable' grade, with the remaining EIA proposals scoring either strongly or poorly.

Similar to the indicator of 'Timing', the documentary research of this study demonstrated that EIA applications which promoted enhancement through separate technical appendices, such as EMPs, performed better. As a result, the framework perhaps illustrated the benefits of clear and specific enhancement desires, detailed through the use of EMPs and other securing mechanisms. The use of additional documentation to specify enhancement actions is likely to also aid transcription of enhancement requirements into planning conditions, and as a result promote more robust implementation and monitoring.

Furthermore, use of the framework highlighted sectoral disparities in terms of thoroughness of committed enhancements. In the EIAR documentation evaluated, applications relating to onshore renewables performed notably better compared to other sectors.

Use of an enhancement quality testing framework perhaps therefore helps to demonstrate a need for guidance on a sector-by-sector basis, promoted by the corresponding industry body. This may result in competition between developers to showcase enhancement credentials so as to boost favourability of the project (e.g. see onshore renewable sector commitments of Vattenfall, 2020 and Scottish Power Renewables, 2020).

5.4 How monitoring and follow-up of enhancement is developed and committed to As demonstrated in section 4.1, of the 24 EIARs evaluated, 17 made provision for enhancement in some way. Of these 17 which *included* enhancement, 10 Reports (59%) scored a 'Deficient (C)' or 'Not Present (D)' for the indicator 'Responsibility & Monitoring'. This was the highest proportion of 'C' and 'D' grades across the four Performance Indicators (see Figure 4).



**Figure 4.** Number of grades awarded in terms of responsibility and monitoring of enhancement in 24 EIA Reports submitted in Scotland between 2015-2020.

These results are illustrative of the fact that whilst some consideration was usually given to the timing of an enhancement, as well as some description about who, and where the measure is directed toward and how it might be implemented, there was little discussion of any commitments to monitor or follow-up enhancements post-consent.

This poor provision of monitoring frameworks for enhancement in the EIARs evaluated perhaps demonstrates a fundamental issue within the EIA process. This is that whilst the 'polluter pays principle' is applicable to the mitigation of adverse impacts, there is little incentive for developers to follow-up any commitment to enhance positive impacts (João et al., 2011). The amended 2014 EU EIA Directive, and as a result Scotland's transposed 2017 legislation, made, for the first time, a legal requirement to monitor proposed mitigation of adverse impacts. This means that there is a regulatory requirement to monitor mitigation, which can be enforced by the relevant planning authorities if conditions are not met. The same is not true of enhancement of positive impacts.

The issue of monitoring enhancement is perhaps multi-faceted in that, within the EIAR, responsibility for enhancements is not properly established and monitoring frameworks not

suitably developed. Following consent, where commitments have been made to monitor, these may become lost when being transcribed into planning conditions. In addition, there may be lack of capacity and expertise on the ground for monitoring and enforcement. This relates to what Eales and Sheate (2011, p. 50) calls the "blind faith in mitigation" - the "inability to ensure that mitigation measures will be delivered or that they will be successful".

Difficulties associated with monitoring both mitigation and enhancements are not limited to the Scottish context of this study. In an evaluation of EIA professionals' opinions, involved primarily within transportation projects in Southern Europe, Soria-Lara et al. (2020) demonstrated monitoring as a significant EIA process-related problem.

Ultimately, the large potential for conceiving enhancements means there will always be ambiguity associated with what constitutes 'enhancing'. However, this further reaffirms the importance of also having well-established monitoring and follow-up frameworks, which help to evaluate and modify measures over time.

#### 5.5 Summary

The results presented in this section demonstrate the value of using an Enhancement Quality Testing Framework. Given the longevity of enhancements, without an accountable and transparent system of monitoring there is no guarantee that a) committed enhancements are actually implemented, b) they are delivering their intended benefits to their intended recipient, and c) they are not causing unintended negative consequences. Understanding and evaluating enhancement quality in a holistic manner, beyond noting if it is included in an EIAR, is perhaps the first step required to a more robust and accountable culture of enhancement use.

#### 6. Conclusions and Recommendations

This paper presented an 'Enhancement Quality Testing Framework' to address the methodological gap in evaluating the *quality* of enhancements within EIARs. This framework was tested using documentary research of 24 Scottish EIARs which highlighted the importance of evaluating enhancement quality.

Results revealed that whilst 70% of the 24 EIARs evaluated presented enhancements, overall a majority of those measures performed poorly when evaluated against the specific four performance indicators of the framework. It was also demonstrated that whilst the EIARs often clearly presented enhancement desires, measures on the whole were not well considered in terms of: when the enhancements would be created and benefits realised; where and who the enhancements were directed towards; what actions could be taken to secure implementation and the materialisation of benefits; and how the measures would be monitored and followed up post-consent. The disparity between the wide consideration of enhancement in EIARs and the poor development of those measures ultimately demonstrates the importance of being able to methodologically evaluate enhancement quality.

Monitoring and follow-up of enhancements was shown to be the worst performing aspect of enhancement quality. For enhancements to be properly implemented, and for benefits to materialise in their intended manner, a greater priority needs to be given to monitoring and follow-up frameworks. These results highlight the importance in understanding how enhancement measures perform across different criteria and may help future practice promote more effective use of enhancement.

It is hoped that these findings will help interested parties better account for *how* additional positive benefits are developed and used within Impact Assessment (IA) processes. The framework could be used by developers, planners, and consultants to ensure more effective integration of enhancement into projects. Equally it has value for decision makers looking to ensure accountability and transparency of committed enhancement actions. The framework could also be deployed on a larger scale to provide insight into current states of enhancement integration in EIA practice. Furthermore, the framework provides an opportunity for refinement and alteration based on the individual needs of its user. For example, its scope could be broadened to other forms of IA, such as Social Impact Assessment (SIA), or Health Impact Assessment (HIA), where both disciplines recognise the importance of enhancement opportunities (e.g. Rowan and Streather, 2011).

Without a robust means of evaluating additional benefits, there is latitude for anything to be termed as 'enhancing'. The use of an Enhancement Quality Testing framework, as presented in this paper, introduces a suitable, holistic mechanism for an evaluation of *how well* enhancements are included and developed in EIA processes. As a result, it is suggested that the use of the framework could allow for accountability and traceability of committed enhancements in EIARs.

Attempts to create additional benefits as part of an EIA are often placed at the bottom of the mitigation hierarchy, after compensating for what is lost (Mitchell, 1997). If enhancement is to be seen as a distinct and important part of the EIA process, and lines more clearly drawn between enhancing and compensating; then perhaps it truly needs to be a separate, yet complementary stage to mitigation, as suggested by João et al. (2011). Or alternatively should be placed at the top of the mitigation hierarchy as proposed by Bond et al. (2013, p. 242) who argue that the emphasis on 'avoid' and 'minimise' is not enough to meet "sustainability imperatives".

Importantly, for enhancement to be made evident and shine, and ultimately for this framework to work, it is critical that enhancements are recorded in the EIARs. McDonald and Brown (1995, p. 487) point out that design changes can go "unrecorded and unsung" and useful lessons from these changes are then lost.

If EIA is to fulfil its true potential as an *opportunity* to inform and improve, rather than simply a regulatory hurdle to overcome, then the creation of additional benefits should be pursued wherever possible. As part of this, it is of fundamental importance to understand enhancement quality, or else we risk missing the purpose of enhancing, which is ultimately to create an overall net benefit. Without first understanding what constitutes good enhancement there is a risk it will always be underutilised within EIA practice.

As enhancement becomes more common and widespread, there needs to be a robust process when reviewing EIA developments to ensure that enhancements are indeed realised. Biodiversity Net Gain metrics go some way to demonstrate a commitment to enhance, but surely it is possible to go beyond this for more nuanced topics and ways of enhancing. This paper seeks to contribute to this process by testing a framework for enhancement review, with the aim that it can be refined and expounded on as a means of standardising how individuals consider enhancement in the hope that it has a greater weighting on planning decisions. While there is no legal commitment to enhance, if developers recognise that *clear* 

and *specific* enhancement was rewarded and considered best practice, then the accountability of a review framework might ensure that enhancement will happen.

#### References

- Barker, J (2016). Biodiversity net gain, good practice principles for development. CIEEM, CIRA, IEMA. Available at: https://cieem.net/resource/biodiversity-net-gaingood-practice-principles-for-development/ [Accessed 29 March 2020]
- Bond, A., Fischer, T. B. and Fothergill, J. (2017), Progressing quality control in environmental impact assessment beyond legislative compliance: An evaluation of the IEMA EIA Quality Mark certification scheme. Environmental Impact Assessment Review, 63: 160-171.
- Bond, A., Morrison-Saunders, A. and Stoeglehner, G. (2013), Designing an effective sustainability assessment process. In: Bond, A., Morrison-Saunders, A. and Howitt, R. (eds), Sustainability Assessment: Pluralism, practice and progress, pp. 231-244. Lodnon: Routledge.
- Brown, A.L. and Hill, R.C. (1995), Decision-scoping: making EA learn how the design process works. Project Appraisal 10 (4): 223 232.
- Cascadden, M., Gunton, T. and Rutherford, M. (2021), Best practices for Impact Benefit Agreements. Resources Policy, 70, 101921.
- CIEEM, (2019). Biodiversity Net Gain in Scotland. [online] Available at: https://cieem.net/wp-content/uploads/2019/06/Biodiversity-Net-Gain-in-Scotland-CIEEM-Scotland-Policy-Group.pdf [Accessed 26 March 2020].
- Dasgupta, P. (2021), The Economics of Biodiversity: The Dasgupta Review. (London: HM Treasury). Available at: https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review
- Donkin, P. (2017). The role of Environmental Enhancement Strategies in helping secure planning permission for EIA schemes. IEMA EIA Quality Mark Article. Available at: https://www.iema.net/recognition/eia-quality-mark/articles [Accessed 02 Aug 2020]
- Eales, R. and Sheate, W. (2011), Effectiveness of policy level environmental and sustainability assessment: challenges and lessons from recent practice. Journal of Environmental Assessment Policy and Management, 13(1): 39–65.
- Esteves, A.M. and Barclay, M.A. (2011). Enhancing the benefits of local content: integrating social and economic impact assessment into procurement strategies, Impact Assessment and Project Appraisal, 29(3): 205-215.
- European Union. (2014a). Directive 2014/52/EU amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment. Brussels: Official Journal of the European Union, L124, 25 April 2014.
- Fischer, T.B., Welsch M. and Jalal, I. (2019), Reflecting on the preparation of guidelines for strategic environmental assessment (SEA) of nuclear power programmes, Impact Assessment and Project Appraisal, 37:2:165-178.
- Glasgow and the Clyde Valley Strategic Development Planning Authority, (2017). 'Clydeplan' Strategic Development Plan. Available at: <a href="https://www.clydeplansdpa.gov.uk/">https://www.clydeplansdpa.gov.uk/</a> [Accessed 05 Feb 2020]

- Glasson, J., and Therivel, R. (2019), Introduction to environmental impact assessment. Fifth edition. New York: Routledge.
- Gibson R. (2006), Sustainability assessment: basic components of a practical approach, Impact Assessment and Project Appraisal, 24(3): 170-182
- Highland Council, (2012). Highland-wide Local Development Plan. Available at: https://www.highland.gov.uk/info/178/local\_and\_statutory\_development\_plans/199/hig hland-wide local development plan [Accessed 05 Feb 2020]
- IEMA (2015). IEMA Environmental Impact Assessment Guide to Shaping Quality Development. Available at: <a href="https://www.iema.net/resources/iema-essential-reading">https://www.iema.net/resources/iema-essential-reading</a> [Accessed 10 Feb 2020].
- Partidário M. (2012), Impact assessment, Fastips No. 1, Fargo: International Association for Impact (IAIA) [online] Available at: https://www.iaia.org/uploads/pdf/Fastips 1%20Impact%20Assessment.pdf
- Partidário, M. and Verheem, R. (2019), Impact Assessment and the Sustainable Development Goals (SDGs). FASTIPS No. 19. Fargo: International Association for Impact Assessment (IAIA) [online] Available at: <a href="https://www.iaia.org/uploads/pdf/Fastips">https://www.iaia.org/uploads/pdf/Fastips</a> 19%20SDGs.pdf
- Jesus, J. (2013), Mitigation in Impact Assessment. FASTIP no. 6. Fargo: International Association for Impact Assessment (IAIA) [online] Available at: https://www.iaia.org/pdf/specialpublications/Fastips\_6%20Mitigation.pdf [Accessed 4 April 2020]
- João, E., Vanclay, F. and den Broeder, L. (2011). Emphasising enhancement in all forms of impact assessment: introduction to a special issue. Impact Assessment and Project Appraisal, 29(3): 170-180.
- Larsen, S., Kørnøv, L. and Christensen, P. (2018). The mitigation hierarchy upside down a study of nature protection measures in Danish infrastructure projects. Impact Assessment and Project Appraisal, 36(4): 287-293.
- Laurian, L., Day, M., Berke, P., Ericksen, N., Backhurst, M., Crawford, J. and Dixon, J. (2004) Evaluating Plan Implementation: A Conformance-Based Methodology, Journal of the American Planning Association, 70(4): 471-480
- Lee, N. and Brown, D. (1992) Quality control in environmental assessment. Project Appraisal, 7(1): 41-45, DOI: 10.1080/02688867.1992.9726837
- McCluskey, D and E João 2011. The promotion of environmental enhancement in strategic environmental assessment. Environmental Impact Assessment Review, 31(3): 344–351.
- McDonald, G. and Brown, L. (1995). Going beyond environmental impact assessment: Environmental input to planning and design. Environmental Impact Assessment Review, 15(6): 483-495.
- Mitchell, J. (1997), Mitigation in environmental assessment furthering best practice. Environmental Assessment, 5(4): 28–29.
- OECD (2019). Biodiversity: Finance and the Economic and Business Case for Action, report prepared for the G7 Environment Ministers' Meeting, 5-6 May 2019.Rajvanshi, A., Brownlie, S., Slootweg, R. & Arora, R. (2011) Maximizing benefits for biodiversity:

- the potential of enhancement strategies in impact assessment, Impact Assessment and Project Appraisal, 29 (3): 181-193.
- Rowan, M. & Streather, T. (2011). Converting project risks to development opportunities through SIA enhancement measures: a practitioner perspective. Impact Assessment and Project Appraisal, 29(3): 217-230.
- Roxburgh, T., Ellis, K., Johnson, J.A., Baldos, U.L., Hertel, T., Nootenboom, C., and Polasky, S. (2020). Global Futures: Assessing the global economic impacts of environmental change to support policy-making. Summary report. Available at: https://www.wwf.org.uk/sites/default/files/2020-02/GlobalFutures SummaryReport.pdf [Accessed 14 August 2020]
- Scottish & Southern Electricity Networks. (2019). A Network for Net Zero. Our approach to implementing biodiversity net gain: Consultation. Available at: <a href="https://www.ssentransmission.co.uk/media/3459/ssen-riio-t2-bio-diversity-net-gain-paper-16pp-22789-web.pdf">https://www.ssentransmission.co.uk/media/3459/ssen-riio-t2-bio-diversity-net-gain-paper-16pp-22789-web.pdf</a> [Accessed 10 November 2020].
- Scottish Government. (2014). Scottish Planning Policy. [online] Available at: https://www.gov.scot/publications/scottish-planning-policy/ [Accessed 02 Feb 2020]
- Scottish Government. (2013). Planning Advice Note 1/2013: Environmental Impact Assessment. Available at: https://www.gov.scot/publications/planning-advice-note-1-2013-environmental-impact-assessment/ [Accessed 11 Feb 2020]
- Scottish Government. (2020) Scotland's Fourth National Planning Framework Position Statement. [online] Available at: <a href="https://www.gov.scot/publications/scotlands-fourth-national-planning-framework-position-statement/documents/">https://www.gov.scot/publications/scotlands-fourth-national-planning-framework-position-statement/documents/</a> [Accessed 02 August 2021]
- Scottish Natural Heritage (2016). Planning for development: what to consider and include in Habitat Management Plans. Available at: <a href="https://www.nature.scot/guidance-planning-development-what-consider-and-include-habitat-management-plans">https://www.nature.scot/guidance-planning-development-what-consider-and-include-habitat-management-plans</a> [Accessed 09 August 2020]
- Scottish Natural Heritage (2018). Environmental Impact Assessment Handbook Guidance for competent authorities, consultation bodies, and others involved in the Environmental Impact Assessment process in Scotland. Version 5.
- ScottishPower Renewables. (2020). Enhancing The Environment. Available at: <a href="https://www.scottishpowerrenewables.com/pages/enhancing\_the\_environment.aspx">https://www.scottishpowerrenewables.com/pages/enhancing\_the\_environment.aspx</a> [Accessed 10 November 2020].
- Soria-Lara, J., Batista, L., Le Pira, M., Arranz-López, A., Arce-Ruiz, R., Inturri, G. and Pinho, P., 2020. Revealing EIA process-related barriers in transport projects: The cases of Italy, Portugal, and Spain. Environmental Impact Assessment Review, 83, pp.
- Vattenfall. (2020). Vattenfall Shares Ideas For Biodiversity Enhancement. Available at: <a href="https://group.vattenfall.com/press-and-media/newsroom/2020/vattenfall-shares-ideas-for-biodiversity-enhancement">https://group.vattenfall.com/press-and-media/newsroom/2020/vattenfall-shares-ideas-for-biodiversity-enhancement</a> [Accessed 20 October 2020].
- Vanclay F., Esteves, A.M., Aucamp, I. and Franks D. (2015) Social Impact Assessment: Guidance for assessing and managing the social impacts of projects, Fargo: International Association for Impact Assessment.

### Acknowledgements

Thanks to the anonymous reviewers for their comments and suggestions that helped improve and clarify this paper.

### Appendix A - Summary of the type of data gathered, using one EIAR as an example

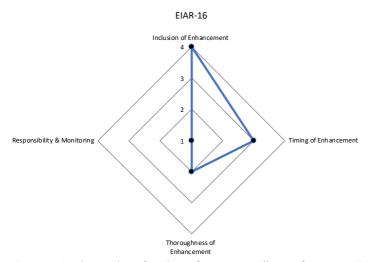
Complete data, showing in detail how grades were awarded for the 24 EIAR, can be found in the supplementary information associated with this paper (codified by EIAR-1 to EIAR-24).

**Table A1.** The process used for recording, describing and referencing enhancement measures within the 24 EIAR evaluated. The table presents a summary of enhancements noted in 'EIAR-16'.

Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
Biophysical	Enhancement 1: Ecological enhancement	Protection and enhancement of proposed SuDS ponds; enhancing existing green corridors to improve suitable habitats for a range of species; use of native species planting to provide foraging opportunities	Para 9.153 – 9.169, pp. 9-22 – 9-27 of chapter 9. Supplementary 'Landscape Design Statement'
Social & Health	Enhancement 2: Increased provision and promotion of sustainable transport	Enhancement of existing core paths and cycle routes to form a network of sustainable travel options	Para 4.26, 4.28, pp. 4-5, 4-6 of chapter 4.
	Enhancement 3: Local job creation	Promotion of local job creation via reconciliation of local skills with those needed by development.	Para 5.64, 5.65, p. 5-10 of chapter 5.

**Table A2.** The summarised evaluation of EIAR-16 showing each Performance Indicator's grade and equivalent numerical value which allows and overall grade to be calculated. This process was used across the 24 EIARs.

Performance Indicator	<b>Grade (1-4)</b>	Grade (D-A)
Inclusion of Enhancement	4	A
Timing of Enhancement	3	В
Thoroughness of Enhancement	2	С
Responsibility & Monitoring	1	D



**Figure A1.** The grades of each Performance Indicator for EIAR-16 shown in a radar chart. This process was completed across the 24 EIAR evaluated so as to readily identify grades assigned.

**Table A3.** The process used for answering the questions in the Enhancement Quality Testing Framework and assigning a grade for each indicator across the 24 EIAR evaluated. The summarised results shown are that of EIAR-16 and correspond with the enhancements presented in Table 4.

Performance Indicator	Indicator grade	Associated questions	Associated question grade
(1). Inclusion of	A	1.1. Is there enhancement measures cited in any section of the ES?	A Overall
enhancement		1.2. How clear is it within the ES that enhancement has been considered and developed?	B Overall
(2). Timing of		2.1. Is it clear which phase of the development the enhancement(s) will be implemented? Preconstruction, construction or operation?	B Overall
enhancement	В	2.2. Are timelines provided regarding when benefits of the enhancement will be achieved? For example, will benefits be realised in the short, medium, or long term?	C Overall
		3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	C Overall
(3). Thoroughness of enhancement	C	3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	B Overall
		3.3. Is there a description of how the enhancement measure might be implemented/carried out? What actions will/could be taken to achieve the enhancement?	D Overall
(4). Responsibility & monitoring of enhancement	D	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement	D Overall
		4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	D Overall
Summary and		ures were outlined that seek to provide additional positive	
justification for grades assigned:		physical and socio-economic environments, overall they w nd not developed to any reasonable extent. Actions which	
grades assigned.		ersity and local travel networks (E1, E2) were difficult to d	
		nate attempts at creating additional positive benefits. This is	
		considered as part of the mitigation commitments to produ	
		effect on the environment. For each of the enhancements, to irection in terms of where and who the actions will benefit	
		no detail as to how this would be achieved and what action	·
	taken to ensu	are they are implemented. The same was true for any	
		y/monitoring commitments to the enhancements. Beyond is e enhancement is for, there was very little detail provided.	dentifying

# Supplementary Data: Table of Contents

1. Summary of Document Study Results	1
1.1. Overall grades of 24 EIAs between 2015-2020	Error! Bookmark not defined.
1.2. Performance indicator grades of 24 EIAs between 2015-2020	
1.3. Enhancement measures by category	2
2. Full Results of Document Study	3
2.1. Full results of EIAR-1	3
2.2. Full results of EIAR-2	11
2.3. Full results of EIAR-3	
2.4. Full results of EIAR-4	26
2.5. Full results of EIAR-5	32
2.6. Full results of EIAR-6	37
2.7. Full results of EIAR-7	45
2.8. Full results of EIAR-8	50
2.9. Full results of EIAR-9	54
2.10. Full results of EIAR-10	61
2.11. Full results of EIAR-11	66
2.12. Full results of EIAR-12	75
2.13. Full results of EIAR-13	80
2.14. Full results of EIAR-14	91
2.15. Full results of EIAR-15	97
2.16. Full results of EIAR-16	102
2.17. Full results of EIAR-17	110
2.18. Full results of EIAR-18	115
2.19. Full results of EIAR-19	121
2.20. Full results of EIAR-20	127
2.21. Full results of EIAR-21	134
2.22. Full results of EIAR-22	139
2.23. Full results of EIAR-23	146
2.24 Full results of FIAR-24	152

# 1. Summary of Documentary Research Results

### 1.1. Performance indicator grades of 24 EIARs between 2015-2020

EIA	Performance Indicator	Inclusion	Timing	Thoroughness	Responsibility & Monitoring
1		В	С	С	С
2		D	D	D	D
3		А	В	А	С
4		А	В	В	D
5		А	С	С	D
6		А	А	А	В
7		В	В	С	D
8		D	D	D	D
9		А	А	А	А
10		D	D	D	D
11		А	В	В	С
12		D	D	D	D
13		А	А	А	В
14		В	С	С	С
15		D	D	D	D
16		А	В	С	D
17		D	D	D	D
18		А	А	А	А
19		В	С	С	С
20		А	А	А	В
21		D	D	D	D
22		В	С	В	D
23		Α	Α	Α	А
24		А	С	А	С

# 1.3. Enhancement measures by category

EIA	Enhancement	Biophysical	Social & Health	Economic
1	Category	5	0	0
2			0	
		0		0
3		4	1	0
4		2	0	0
5		0	1	0
6		1	1	1
7		1	0	0
8		0	0	0
9		2	0	0
10		0	0	0
11		3	0	0
12		0	0	0
13		2	3	0
14		1	0	0
15		0	0	0
16		1	2	0
17		0	0	0
18		1	0	0
19		1	1	1
20		1	1	0
21		0	0	0
22		2	0	0
23		1	0	0
24		1	0	0
Total		29	10	2

# 2. Full Results of Documentary Research

### 2.1. Full results of EIAR-1

### **Description of Development**

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
Transport	Road	A9/A96	Transport	Jacobs	09/2019	Improvements to local road network at Inshes, extending to
		Inshes to	Scotland			Smithton, as part of the £315 million Inverness and Highland City-
		Smithon				Region Deal. Commences west of the A9 at Inshes. The proposed
						scheme includes new overbridges; new lane gain/lane drop; new
						single carriageway; and two new four-arm roundabouts.

# **Description of Enhancement**

Enhancement Category	Enhancement Measure	Description	Evidence in document
			assessed
	E1 – Enhanced visual amenity and wildlife value through SuDS design.	Planting of native scrub species to enhance wildlife habitat and visual amenity of SuDS features into the landscape.	Mitigation item LV- 09, para 9.5.19, p. 9-25
	E2 – Biodiversity	Improvements to biodiversity through planting of predominantly native	Mitigation item LV-
Biophysical	enhancement through	species, or non-native species were it to enhance sense of place/visual	13, para 9.5.22,
Enhancements	planting regimes	interest. Native species will provide new wildlife habitats and compliment neighbouring habitats.	p.9-25
	E3 – Enhanced landscape	Planting of hedgerows to reintroduce a lost or degraded aspect, enhance	Mitigation item LV-
	character through hedgerows	landscape character, and provide biodiversity improvements.	25, para 9.5.27, p.9-27
	E4 – Habitat creation and	Inclusion of meander bends and riparian zones as part of watercourse	Mitigation item E-
	enhancement	realignments to provide new habitats for aquatic species.	03, table 11.6, p.11-36
	E5 – Habitat enhancement	Provision of short vegetation habitats around SuDS ponds suitable for wintering birds such as waders.	Mitigation item E- 24, table 11.6, p.11-42

# **Grading of Enhancements**

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of		1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes – all enhancement measures are directed at biophysical improvements.
enhancement	В	1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	E1 – E5: All enhancements are reasonably clear but could be improved. Some mention attempts to provide enhanced visual amenity and biodiversity in non-technical summary. Within the main ES all measures are included as mitigation items alongside traditional mitigation actions. This makes it difficult to distinguish between what is actually a deliberate attempt at providing additional positive outcomes and what is a mitigation of negative impacts.
Timing of enhancement	С	2.1. Is it clear which phase of the development the enhancement(s) be implemented? Preconstruction, construction or operation?	E1: Yes. Specified that planting around SuDS are to be implemented prior to, and during construction. A  E2: Yes. Specified that planting regimes of native and non-native species will occur prior to and during construction. A  E3: Yes. Clear hedgerow planting will occur prior to and during construction. A  E4: Yes. Specified that creation of new habitats for aquatic species will occur during construction. A  E5: Yes. Specified that creation of short grassland habitat is planned for operation phase. A
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: No timelines are provided for when biodiversity and visual amenity enhancements due to planting design of SuDS will occur. Brief mention in Appendix A9.3 that whilst SuDS are likely to be naturally colonised over

			time there is a desire to provide more immediate visual and ecological benefits by naturalistic planting. C  E2: No timelines provided for when biodiversity improvements are likely to occur due to planting of native species. Unclear as to whether habitat creation and wildlife improvements will occur immediately or whether effects are likely to accrue over the long-term. D  E3: No timelines, discussed as to when benefits of hedgerow planting will be achieved. Not clear whether they will provide immediate landscape character and biodiversity benefits or whether this will take longer to establish. D  E4: No discussion of when habitat creation and enhancement will be achieved. Presumed to be when the actions are implemented but is not clear. D  E5: No mention of when habitat enhancement around SuDS ponds will be realised and when this would provide suitable high tide roosts for waders. D  D Overall
Thoroughness of enhancement	C	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	E1: Yes. Clearly relates to planting around SuDS basins. Detailed figures are provided showing location of proposed SuDS ponds as well as design of planting around SuDS. A  E2: Planting regime of predominantly native species is planned throughout the entire scheme. Figure 9.5. provides detailed locations of different planting. However, no indication where habitat creation and biodiversity enhancements will have the greatest effect. Lacks detail. C  E3: Figure 9.5. indicates proposed planting locations of hedgerows throughout scheme. However, no direct indication of where enhancements and improved visual amenity is likely to have greatest effect. C  E4: Applies geographically to watercourses throughout scheme. Specifically Ciarnlaw burn, as it is the only watercourse thought to be suitable to allow passage of migratory fish, and to contain appropriate habitat for fish of conservation status. A

3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	E5: Action refers to SuDS surrounding agricultural land directly beneath footprint of scheme. Habitat enhancement throughout SuDS areas of 'Link 4'. See Figure 4.1: 'the proposed scheme' B  B Overall  E1: Planting principles around SuDS ponds to be of: native plant assemblages/species tolerant of wet and dry conditions; mimic plant communities within surrounding natural systems. No information as to which species or which aspects of biodiversity this would benefit however. C  E2: National Vegetation Classification (NVC) is to be used to inform the selection of plant species for planting. Various discussion about which plants will be used, but little detail on which species will benefit from biodiversity enhancements, which habitats will be created and which adjacent habitats will be complimented. C  E3: Description of hedgerow species to be planted but no discussion of which species will receive biodiversity improvements, or which groups of people will benefit from improved visual amenity. C  E4: Yes. Directed at fish and aquatic species. A description of fish and other life observed in Cairnlaw river is provided in Chapter 11. ES doesn't specify species exactly, or which kind of habitats will be created. B  E5: Yes. Clearly directed at providing new habitat for wintering birds such as waders and wildfowls. Some detail over the habitat to be created (short grassland). A
3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	E1: A SuDS Design Principles document is included as Appendix 9.3. with some discussion regarding planting principles to be followed. However, it mainly pertains to generic planting and use of native species and lacks detail overall as to how the enhancement will be secured or implemented. C  E2: Information is provided regarding the use of native and non-native species where appropriate. Detail on use of young stock plants to provide

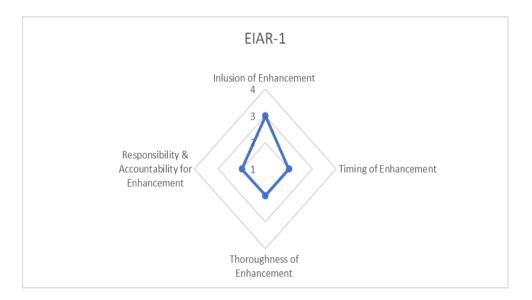
			increased chance of establishing and use of large plants to provide immediate effects. However, none of these relate directly to how the enhancement of local biodiversity will be achieved. Which species of plants will be used to secure biodiversity enhancements and where will they be planted to provide maximum benefits? C  E3: No discussion of how planting of hedgerows will secure biodiversity improvements. Information provided on species mixes to be used. C  E4: Brief discussion of how new habitat will be created via stream bend meanders and creation of riparian zones but lacks detail. Only to be implemented where watercourse realignments are unavoidable. C  E5: Little detail about how new habitat will be created for wintering birds. Only information provided is that it will include short vegetation. No information about what kind of vegetation, how it will be planted/implemented. C  C Overall
Responsibility & Monitoring	C	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement  4.2. Is there detail of follow-up and	It is not explicit who is responsible for implementing, funding, managing and monitoring enhancement actions specifically. As part of general construction mitigation and Construction Environmental Management Plan (CEMP) and Ecological Management Plan (which will include specific habitat management and species protection measures) will be developed and implemented. An ecological clerk of works will be responsible for implementing habitat management measures.  An environmental clerk of works will be appointed to monitor the implementation of mitigation measures and therefore presumably also enhancements.  C Overall  Some information is provided on monitoring of planting regimes
		monitoring of the enhancement post- implementation? If so, how long does this extend?	throughout the scheme (minimum monitoring of 5 years with replacement of plants which are unsuccessful.

	However, these actions pertain <i>only</i> to mitigation actions as a whole and not specifically enhancement actions. More detail is needed as to who is responsible for paying for, implementing, managing and monitoring the specific enhancement measures.  C Overall	
Overall Grade	Whilst numerous measures were cited as being 'enhancement' often it was unclear whether these were deliberate attempts at promoting additional positive benefits, or whether they were in response to negative impacts, and thus resembled more offsetting or compensating. There was little detail about when the benefits would come into effect, which aspects of biodiversity they were directed toward, and what actions will be taken to ensure their implementation. Furthermore, more detail is needed on monitoring specifically of enhancement measures. As it is unclear whether these are legitimate enhancement, more distinction is needed for how they will be followed-up and evaluated over time to ensure benefits are being realised.	

# **Summary of results**

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion	3	В
Timing of Enhancement	2	С
Thoroughness of Enhancement	2	С
Responsibility & Monitoring	2	С

<b>Category of Enhancement</b>	Occurrence
Biophysical	5
Social & Health	0
Economic	0



### 2.2. Full results of EIAR-2

### **Description of Development**

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
Power	Transmission	Creag Riabhach Wind Farm 132 kV Grid Connection	SSE	Pegasus	02/2020	Construction of a new 132 kilovolt (kV) wood pole overhead line (OHL) to connect Creag Riabhach Wind Farm to Dalchork substation, north of the village of Lairg, Sutherland. This includes installation of approximately 22km of OHL, as well as ancillary works to support the development, including tree felling and vegetation clearance.

### **Description of Enhancement**

Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
None	None	No consideration or development of any actions which seek to include additional	N/A
		direct or indirect positive outcomes.	

# **Grading of Enhancements**

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement D		1.1. Is there enhancement measures cited in any of the EIA documentation?	No.  The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Timing of enhancement	D	2.1. Is it clear which phase of the development the enhancement(s) be implemented?  Preconstruction, construction or operation?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Thoroughness of enhancement D		3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.

Responsibility & Monitoring	D	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.		
		4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.		
Overall Grade		ne ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the evelopment.			

# **Summary of results**

Performance Indicator	Grade (1-4)	Grade (A-D)
Inclusion of Enhancement	1	D
Timing of Enhancement	1	D
Thoroughness of Enhancement	1	D
Responsibility & Monitoring	1	D

<b>Enhancement Category</b>	Occurrence
Biophysical	0
Social & Health	0
Economic	0

### 2.3. Full results of EIAR-3

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
Transport	Road	A9 Dualling: Pitlochry to	Transport Scotland	Jacobs	12/2017	A phase of the extensive A9 Trunk Road Dualling Programme.
		Killiecrankie				Involves dualling the A9 between Pitlochry and Killiecrankie with the scheme commencing 1km south east of the existing A9 River Tummel Crossing and extending to the north approximately 7km. Scheme comprises widening of the existing single carriageway across three main sections. Upgrades include provision of new dual carriageway, grade separated junctions, and two new underbridges

Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
Biophysical	E1 – Enhanced understanding of geology	New exposures of bedrock created as part of the proposed scheme have the potential to provide benefits and enhance existing landscape by improving access and exposure to new geological units of interest. Measures to enhance these benefits have been discussed with SNH and BGS and include: signature blocks taken off site to be used for educational purposes; opportunity for BGS and SNH to survey and map new exposures.	Mitigation item P04-G19, P04-G20. Table 21.4, p10 of chapter 21. Para 10.4.17, p. 19 of chapter 10. Para 10.5.25, p.26 of chapter 10.
	E2 – Creation of new environmentally beneficial features alongside SuDS designs	SuDS features designed to enhance wildlife habitats and visual interest. Achieved through planting of native tree and shrub species. Margins will also be planted with native aquatic, emergent and marginal plant species.	Mitigation item P04-LV9. Table 21.7, p.33 of chapter 21. Para 13.5.24, p.21 of chapter 13.
	E3 – New wildlife habitats + increased connectivity with adjacent woodland through planting regime	Planting proposals using native species are to provide increased biodiversity through the creation of new wildlife habitats, increased connectivity with adjacent woodland and by complementing adjacent habitat areas.	Mitigation item P04-LV14. Table 21.7, p.35 of chapter 21. Para 13.5.31, p. 22 of chapter 13.

	E4 – Enhance travelling experience along proposed scheme	Planting applied within the road corridor to enhance and improve the experience of travelling along the proposed scheme. Achieved by creating new views of variety woodland types.	Mitigation item P04-LV20. Table 21.7, p.36 of chapter 21. Para 13.5.49, p.25 of chapter 13.
Social & Health	E5 – Enhanced NMU Routes	As part of embedded mitigation (mitigation by design), scheme includes provisions for new non-motorised user (NMU) routes. This includes underpasses, footpaths, cycleways and landscape planting. Specifically this is believed to provide enhanced NMU connections to Tay Forest Park from the A9 and side roads.	N/A

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of		1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. Several examples of proposed enhancement measures. Most pertain to biophysical impacts but one relates to greater provision of NMU routes. A
enhancement	A	1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	Clear. It is first outlined in the NTS that where possible measures to provide beneficial effects and enhance the environment have been considered. Enhancements are discussed in the relevant technical chapters and summarised clearly in chapter 21 – "Schedule of Environmental Commitments" A
Timing of enhancement	В	2.1. Is it clear which phase of the development the enhancement(s) be implemented?  Preconstruction, construction or operation?	E1: Yes. Clearly outlined that attempts to enhance new rock cuttings created as part of the scheme as well provide an opportunity for new geological understanding of fresh exposures will occur during the construction of the scheme. A  E2: Yes. Clear that SuDS features will be designed pre-construction and
			implemented during construction phase to provide visual amenity and wildlife benefits. A
			E3: Yes. Clear that planting proposals will be designed pre-construction and implemented during construction of the scheme to provide new wildlife habitats and increase biodiversity. A
			E4: Yes. Clear that planting along the road corridor is to be designed pre-construction and implemented during construction to enhance travelling experience along the scheme. A  E5: Clear that measures to enhance NMU routes were developed as part of iterative design early in the EIA process. Clear that measures to maintain and improve NMU routes will be implemented during, and post construction. A

			A Overall
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: Yes. It is made clear that anticipated benefits of new rock exposures such as improved access for surveying, documenting and studying of rock cuttings will be immediate and follow construction activities. A
			E2: Mention of desire for SuDS planting to be of quick effect for visual amenity purposes in comparison to letting pond margins be naturally colonised. B
			E3: No explicit discussion of when planting throughout scheme will create new habitats and improve biodiversity. C
			E4: No explicit discussion of when road corridor planting will provide visual amenity benefits. Unclear if it will be immediate, or longer term.
			E5: No explicit mention of when enhanced NMU routes will be fully realised. Presumed to be during operation of scheme and immediately following completion of construction activities. C
			B Overall
Thoroughness of		3.1. Is it clear geographically where the enhancement(s) is directed. For example, is	E1: Yes. Clearly pertains to new rock exposures and rock cuttings created through construction activities. Benefits relate to both within
enhancement	А	it within the development footprint or does it extend beyond?	the development footprint, for example, new geological exposures to be mapped and surveyed, and outside of development, for example, exposures complementing nearby SSSI and GCR; and signature blocks being taken offsite for educational purposes. A

3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people, aspect of local community or other beneficiary?	E2: Yes. Clearly directed to planting of SuDS ponds throughout scheme. Detailed maps showing locations of SuDS and detailed figures outlining (Appendix 13.6) where planting will occur around ponds. A  E3: Detailed planting map provided (Fig 13.5) for entire chainage of scheme highlighting where specific planting regimes will be implemented. A  E4: As above, detailed planting map provided. However, less clear as to where road corridor planting which provides benefits will occur. B  E5: Yes. Map provided highlighting where NMU routes have been provided and where access to Tay Forest Park has been enhanced. A  A Overall  E1: Yes. Clearly directed at creation of new rock exposures of geological interest. Benefits of enhancing new rock cuttings and providing increased access to new rock exposures are aimed at increasing value of landscape for interested parties including BGS, SNH, and other educational institutions. A  E2: Yes. Detailed reference to native tree, shrub and aquatic emergent plants to be planted around SuDS and on their verges. These native plants will form new habitats and enhance biodiversity by providing plants favoured by invertebrates. A  E3: It is outlined that native plant species are to be used to provide biodiversity benefits. Whilst detail of planting regimes is provided it is unclear which species of native plants will be used to provide said
	biodiversity benefits. Whilst detail of planting regimes is provided it is unclear which species of native plants will be used to provide said benefits. B
	E4: Yes. Clearly directed toward a mix of woodland tree species to enhance user journeys throughout the scheme. A

T.		
		E5: Yes. Clearly directed toward NMUs. These are outlined as being pedestrians, cyclists and equestrians. In particular emphasis is given to users of the Rob Roy Way walking trail and those users wishing to access Tay Forest Park. A
		A Overall
	3.3. Is there a description of how the	E1: Yes. Very clear description of liaison between Contractor and
	enhancement measure will be implemented	BGS/SNH/Transport Scotland during construction to agree measures to
	or carried out? What actions are being	'enhance' rock cuttings. This includes 'signature' blocks excavated during formation of new cuts being taken off site for educational
	planned to try and achieve the enhancement?	purposes. Also includes the provision of BGS/SNH with enhanced access to survey and document new rock exposures during and immediately following construction to update records. A
		E2: Yes. Detailed account of SuDS planting principles to ensure biodiversity benefits. A description of potential species to be planted to provide benefits is given. Species include native tree and shrubs, and aquatic plants such as greater bird's-foot trefoil, yellow iris, white water-lily, purpleloosestrife and meadowsweet. A
		E3: There is a good description of planting principles overall with a detailed series of maps outlining where specific planting regimes will occur throughout the scheme. However, overall there is a lack of detail as to which species will provide benefits and how this will be implemented. C
		E4: As above there is a good description of planting principles in general as mitigation efforts. However, there is a lack of detail as to how planting in road corridor will secure benefits to road users. C

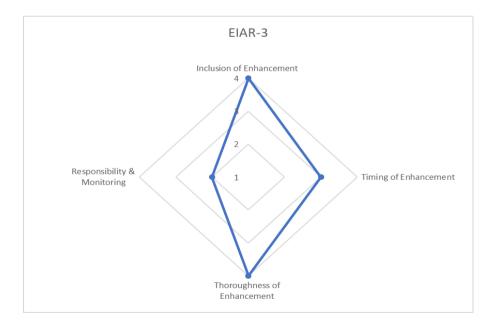
			E5: Overall there is a lack of detail as to how NMU routes will provide enhanced access to Tay Forest Park. The ES only states that enhancing NMU routes was included as part of the iterative design process. C  B Overall
Responsibility & accountability for enhancement	С	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement?	E1: Clear that responsibility lies with contractor and transport Scotland to liaise with SNH/BGS to secure enhancement. Unclear if any follow up or monitoring will be required to ensure good maintenance of new rock cuttings. B  E2: It is outlined in the ES that a construction environmental
			management plan (CEMP) will be developed and an Environmental Clerk of Works (EnvCoW) appointed by the Contractor to monitor the implementation of mitigation measures outlined throughout ES. Furthermore an Ecological Clerk of Work (ECoW) will monitor the implementation of mitigation measures during construction phase. However, there is a lack of detail relating specifically to the enhancement measures. C
			E3: It is outlined in the ES that a construction environmental management plan (CEMP) will be developed and an Environmental Clerk of Works (EnvCoW) appointed by the Contractor to monitor the implementation of mitigation measures outlined throughout ES. Furthermore an Ecological Clerk of Work (ECoW) will monitor the implementation of mitigation measures during construction phase. However, there is a lack of detail relating specifically to the enhancement measures. SNH to be consulted regarding appropriate planting of native species. C
			E4: It is outlined in the ES that a construction environmental management plan (CEMP) will be developed and an Environmental Clerk of Works (EnvCoW) appointed by the Contractor to monitor the implementation of mitigation measures outlined throughout ES.

	Furthermore an Ecological Clerk of Work (ECoW) will monitor the implementation of mitigation measures during construction phase. However, there is a lack of detail relating specifically to the enhancement measures. C  E5: No discussion of who is responsible for securing enhanced NMU access to Tay Forest. Presumed to be Transport Scotland and Contractor. C
	C Overall
4.2. Is there detail of follow-up and monitoring of the enhancement post-	E1: No discussion of follow-up or monitoring for enhancing rock cuttings to ensure benefits are achieved for interested parties. D
implementation? How long does this extend?	E2: Monitoring of planting regime throughout the scheme, including those relevant to increased wildlife habitats and improved biodiversity, will be subject to monitoring for a minimum of 5 years after construction with annual replacement of any failed planting stock. B
	E3: Monitoring of planting regime throughout the scheme, including those relevant to increased wildlife habitats and improved biodiversity, will be subject to monitoring for a minimum of 5 years after construction with annual replacement of any failed planting stock. B
	E4: Monitoring of planting regime throughout the scheme, including those relevant to increased wildlife habitats and improved biodiversity, will be subject to monitoring for a minimum of 5 years after construction with annual replacement of any failed planting stock. B
	E5: No discussion of monitoring of NMU effects for both potential positive and negative effects. D

	C Overall		
Overall Grade	Overall this EIA made good provision for the use of enhancement measures. One such measure is a good example of how the		
	scheme can be designed to provide benefits, rather than introducing extra enhancement measures. The EIA made clear provision		
	for what, where and who the enhancements were directed and how they might be implemented. They were also largely clear to		
	be legitimate enhancement. However, where it could have improved was better defining timing of the measures and who is		
	responsible for them, as well as what sort of monitoring commitments there are.		

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	4	Α
Timing of Enhancement	3	В
Thoroughness of Enhancement	4	Α
Responsibility & Monitoring	2	С

Category of Enhancement	Occurrence
Biophysical	4
Social & Health	1
Economic	0



### 2.4. Full results of EIAR-4

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
General	Residential	Residential	Snaefell	Waterman	02/2018	Application by Snaefell holdings to construct up to
Development	Development	Development at Land	Holdings			800 residential units on land at Edmonstone,
		447 Metres				Edinburgh. Scheme design includes 800 residential
		Northeast of 545 Old				units comprising a mix of detached, terraced,
		Dalkieth Road				bungalow, colonies and flat properties. Additional
						associated landscaping, utilities and roads would be
						undertaken. Site extends approximately 27.4 hectares

Enhancement	Enhancement	Description	Evidence in
Category	Measure		document
			assessed
Biophysical	E1 – Habitat	Installation of bat boxes would compensate for any destruction and disturbance but also	Para 9.99, 9.104,
	Creation	enhance the value of the Site for bats with a residual permanent slight beneficial effect	p. 14 of Chapter
		occurring as a result. Boxes would be a mix of maternity, summer roost, and hibernacula, and	9.
		be located throughout the Site.	Table 13.5, p.3 of
			Chapter 13.
	E2 – Enhance	Management of local woodland through an Estate Management Strategy (EMS) to provide	Para 9.88, p.12
	Local Woodland	benefits to local biodiversity. Identification of local trees to thin and locations to plant native	of Chapter 9.
		tree species of local origin. Management strategies to ensure positive conservation of	Table 13.5, p.3 of
		important woodland indicator species.	Chapter 13.

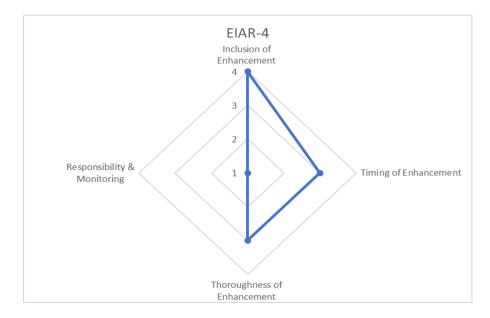
Performance Inc Indicator G	Answer & Grade
nclusion of	tions which may be interpreted as deliberate itional positive benefits as part of the
enhancement	e mentioned twice in the NTS in the form of cal enhancements, as well as enhanced
Fiming of enhancement	rection of bat boxes is recommended to occur o any ground-breaking for the development ground breaking (preconstruction —  nhancing local woodland in line with updated ground construction of development.
	en benefits to local bats are expected due to med to be immediate. Residual effects are ent and site-wide. C en benefits to local biodiversity site through anagement in line with the EMS would occur. its are stated as being permanent to plant
	en benefits to local bened to be immediate ent and site-wide. Cen benefits to local benagement in line wi

Thoroughness of enhancement	В	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	E1: Relatively clear. Construction of bat roost boxes are recommended throughout the scheme at different locations to provide a variety of opportunities for bats. Some are to be facing on to the site, and others on woodland edges to face away from the site. Supporting figures/drawings would help clarify locations further. B
			E2: Relatively clear as pertaining to local woodland and local biodiversity sites. Could be specified further as to particular areas with the aid of figures/maps. B
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or	E1: Yes. Construction of bat boxes clearly directed at providing benefits for local bat populations. A
		aspect of local community?	E2: Yes. Directed at local biodiversity and woodland species.  Particularly woodland indicator species such as bluebells and snowdrops. Additional possibility of providing educational resource to local schools. However, lack of detail in specifying native trees to be planted which will provide the enhancement. B
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the	E1: Yes. Description of bat box types to be erected (summer, maternity, hibernacula). Description of when bat boxes are to be constructed also. A
		enhancement?	E2: Yes. Brief mention that trees will be planted to enhance woodland. However, lacks detail as to how this will be achieved and which species of native trees are to be used. Whilst there is a landscape planting plan it fails to outline which sections pertain to enhancements. B
Responsibility & accountability for enhancement	D	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement?	E1: No. Not clear. Presumed that developer is responsible for funding the action although not explicit. No mention of who takes responsibility for constructing the bat boxes and who supervises their erection – is it the contractor, does an ECoW supervise? No mention of monitoring of the bat boxes once implemented throughout operation of development. No mention of consultations to develop the action. D

	4.2. Is there detail of follow-up and monitoring of the enhancement postimplementation? If so, how long does this	E2: No. Not clear. Again presumed that developer is responsible for developing the Estate Management Strategy and funding the measures outlined in it. Not clear who takes responsibility for planting new native tree species and conserving the local ecology. Is there an ECoW supervising the enhancement? No mention of monitoring of trees planted post implementation. D  No detail for either of the actions. D			
Overall Grade	extend?  Overall the FIA made reasonable provision for enhance	ment of nositive impacts. It was relatively unclear whether the addition of a			
Overall Grade	Overall the EIA made reasonable provision for enhancement of positive impacts. It was relatively unclear whether the addition of a few bat boxes to compensate for lost habitat constitutes genuine enhancement. This seems to resemble more mitigation. However, there was reasonable development of when, where, who and what actions will be taken to achieve the enhancement. The EIA was severely lacking in any monitoring or follow commitments however, and it was not clear who maintained ultimate responsibility for the enhancement measures and their implementation.				

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	4	Α
Timing of Enhancement	3	В
Thoroughness of Enhancement	3	В
Responsibility & Monitoring	1	D

<b>Category of Enhancement</b>	Occurrence
Biophysical	2
Social & Health	0
Economic	0



### 2.5. Full results of EIAR-5

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
Renewable Energy	Offshore Wind	Neart na Gaoithe Offshore Wind Farm	EDF Renewables	GoBe	02/2018	Following bidding for potential offshore wind farm sites in Scottish Territorial Waters, The Crown Estate awarded Mainstream Renewable Power an exclusivity agreement for a site with the potential to generate 6GW of offshore power. The project is located 15.5km directly east of Fife Ness and will cover an area up to 105km with up to 54 turbines.
						This EIA relates to the offshore component of the project which includes the Offshore Wind Farm (the wind turbines, their foundations, inter-array cabling, and meteorological mast), and the Offshore Transmission Works (offshore substation platform, their foundations, and offshore export cables).

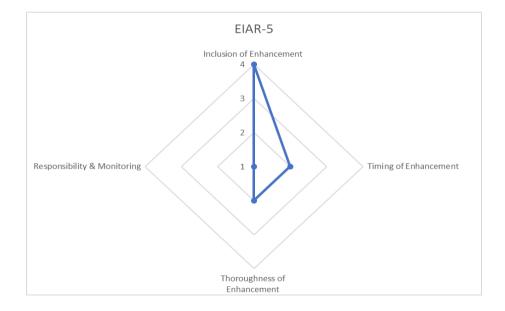
Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
Social & Health	E1 – Maximise local employment	Maximise positive impacts of the development by promoting local job creation as far as possible. Would be achieved by liaising with public sector bodies such as Scottish Enterprise and other activities that raise awareness of the project's opportunities for employment.	Section 23.11, p.23-16.

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	A	<ul><li>1.1. Is there enhancement measures cited in any of the EIA documentation?</li><li>1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?</li></ul>	Yes. A small section in Chapter 23 – 'Socioeconomics'.  A  Directly referred to as enhancement and defined as a means of promoting or increasing positive effects of the project. It is clearly an attempt at creating local
		2.1 lo it along which whose of the development /o a	benefits.  A
Timing of enhancement	С	2.1. Is it clear which phase of the development (e.g. preconstruction, construction or operation) the enhancement(s) will be implemented?  Preconstruction, construction or operation?	E1: No. Not clearly stated. Although presumed to be throughout the lifetime of the project given it relates to job creation opportunities. C
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: No. Timelines are not provided for when job creation will be promoted, or when local communities might see employment benefits. D
Thoroughness of enhancement	С	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	E1: Yes. The measures are clearly directed at maximising local jobs around the Fife area. A
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people, aspect of local community or other beneficiary?	E1: Directed at local community but not specified as to which jobs could be created, who the main beneficiaries would be in terms of groups of people or sectors. C

		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the	E1: Very brief description of liaising with public bodies such as Scottish Enterprise and other measures to promote job creation. Overall lacks detail. C
		enhancement?	promote job creation. Overall lacks detail.
Responsibility & accountability for enhancement	D	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or	E1: Not clear who would be responsible for promoting job creation, who the principal employer would be and who would monitor proportions/numbers of local jobs
		consultees involved with enhancement?  4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	created. D  E1: No mention of monitoring commitments to record number of jobs created, and employment demographics.
Overall Grade	creating loc might be cre	EIA did not develop enhancement of local jobs to a suitable al benefits, it was poorly discussed and not expanded on wite eated, and when they might come into effect. Also no detail o commitment to monitor this job creation over time to ass	degree. Whilst the measure is clearly an attempt at thin the EIA. There was no detail as to how local jobs about which jobs, or who would benefit the most. Finally

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	4	Α
Timing of Enhancement	2	С
Thoroughness of Enhancement	2	С
Responsibility & Monitoring	1	D

<b>Category of Enhancement</b>	Occurrence
Biophysical	
Social & Health	1
Economic	



### 2.6. Full results of EIAR-6

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
Renewable Energy	Onshore Wind	Sheirdrim Renewable Energy Development	Scottish Power Renewables	SLR	10/2019	Proposal by Scottish Power Renewables to construct a 134 MW wind-hybrid renewable energy development in Argylle and Bute, southwest Scotland.  The development would comprise up to 19 three blade wind turbines, 20MW of ground mounted solar arrays, and installation of around 38MW of battery storage. The proposal would also require forest reconstruction works to allow construction and operation of the windfarm.

Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
Social & Health  Biophysical	E1 – Enhanced recreation value of the site	Scottish Power Renewables is committed to improving the recreation value of the site via enhancement measures which include:  Improving access to archaeological sites along Larachmòr Burn and installation of information boards and recreational paths  Creation of access tracks for users of the Kintyre Way  Creation of a viewing point upon Cruach nam Fiadh  Stone seating from locally cut rock  Shelter sites for walkers  Provision of bird hides  Development of a Habitat Management Plan (HMP) to restore 84 hectares of	Section 5.1.3, para 46, p.9 of NTS. Section 3.7, p.7 of chapter 3. Section 11.6, p.19 of chapter 11.
ыорпуяса	restoration	modified and drained blanket peat bog. Two primary aims of 1) Restoring underlying conditions for modified blanket bog, 2) Improve quality of blanket mire habitat.	p.22 of NTS. Para 151, p.17 of chapter 8. Table 8-8, p.23 of chapter 8. Appendix 8.5 'Habitat Management Plan'.
Economic	E3 – Community funding scheme	SPR will offer a package of community benefits with income streams used to support local community projects. SPR has already invested £1.6 million community benefit funding to communities in Argyll and Bute.	Section 3.8, p.7 of Chapter 3. Para 207, p.15 of chapter 14.

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of		1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. Three clear and distinct initiatives spanning biophysical, social and health, and economic, which aim to create additional positive benefits.
enhancement	A	1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	Very clear. Enhancement actions relating to recreational value, peatland restoration and economic investment in local community is first outlined in the NTS and are then discussed throughout the ES and technical chapters.  A
Timing of enhancement	A	2.1. Is it clear which phase of the development (e.g. preconstruction, construction or operation) the enhancement(s) will be implemented? Preconstruction, construction or operation?	E1: Yes. Clear that enhancement of recreational value of the sight would occur across construction and operational phases. Implementation of enhancements would occur primarily in operation.  A  E2: Yes. Clear that the HMP will be implemented as part of construction to restore 84ha of peatland. Will also extend into operation of the development. A  E3: Not made explicit but it is clear that community benefit packages extend throughout lifetime of the project with discussions already occurring pre-construction. B
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: Not made explicit but clear that the benefits of enhanced recreation value would be realised in the short-term operation of the development and provide a legacy of lasting informal benefits. B

			E2: Great detail given in the HMP in terms of objectives for peatland restoration. The long term aspiration of restoring to peatland to a high quality is given as >5 years. A  E3: Not explicit within the ES. However, SPR is providing the income stream but it is the local community that determines where the funding will be directed and thus when benefits will be achieved. SPR states they are committed to keeping the local community updated throughout the development process. B
			B Overall
Thoroughness of enhancement	А	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond? Are there supporting maps/figures showing where enhancement will occur?	E1: Yes. Very clearly directed at improving the recreational value around the Kintyre Way, which passes along the southern boundary of the Site. A clear map of the site with detailed locations of each enhancement measure is provided in Figure 3.1. This outlines locations for: proposed hide location; proposed recreational viewing point; proposed recreational access tracks; and proposed shelter location. A
			E2: Yes. The HMP is extremely detailed and provides locations for the objectives of restoring the underlying blanket bog and improving the quality of blanket mire habitats. Detailed supporting maps outlining the area. A
			E3: Clear that it pertains geographically to the local community and thus can be considered wider-area benefits as it extends out from proposed development site. The host community is West Kintyre Community Council. A  A Overall
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people, aspect of local community or other beneficiary?	E1: Yes. Clearly directed at improving recreational value of the site, specifically for users of the Kintyre Way, which passes along the site's southern boundary. A suite of enhancement measures is proposed to increase this value for these users and other tourists/visitors/members of local community. A

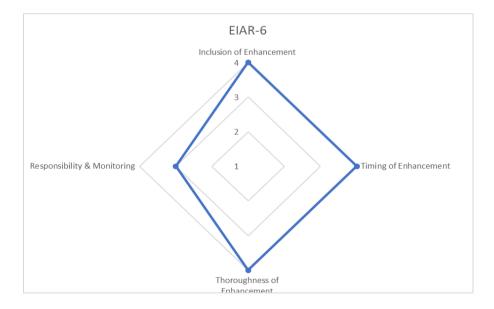
			E2: Yes. Clearly directed at areas of degraded peatland within the site. Improvements will benefit areas of blanket bog habitat (including sphagnum, peat and higher plants), but is also likely to provide biodiversity benefits for a range of species including black grouse and hen harrier. A  E3: Yes. Clear initiative at helping to fund community projects within the West Kintyre Community Council region. A Community Action Plan is outlined for 2017-2023 and provides an overview of the types of projects that may benefit from SPR funding as part of the development. A  A Overall
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	E1: Good description of enhancement actions overall but more detail could be provided regarding how they would be implemented. For example, there is discussion of installing information boards and recreational paths but no supplementary information on how this might be achieved/who will oversee the process. B  E2: The HMP is extremely comprehensive with detailed section on the delivery process for the objectives of restoring peatland environment. The physical interventions required to achieve the objectives within the HMP are outlined clearly. A
			E3: Good discussion overall of liaising with the local community council and key community stakeholders throughout the lifecycle of the development. Good overview of the types of projects that could benefit from an injection of funding from SPR. A
Responsibility & accountability for enhancement	В	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is	E1: Clear that SPR is responsible for funding the enhancement measures. Unclear as to who will be responsible for implementing

	there mention of any partnerships or consultees involved with enhancement?	them, managing them once implemented, and monitoring their effect (for example, visitor numbers/counts). C  E2: Clear that SPR is responsible for funding the restoration of peatland. Clear discussion of how this will be implemented with a robust method outlined for monitoring the objectives stated within the HMP over long and short timescales. A  E3: Clear that SPR is responsible for providing the community benefits package. Clear that the responsibility then falls to West Kintyre Community Council to allocate the investment to projects they think will benefit most/are needed the greatest. No detail of monitoring requirements but may not be necessary. B
	4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	E1: No detail of monitoring requirements for any of the enhancement measures as part of improving the recreational value of the sight are provided. Some detail about monitoring commitments regarding the use of the new features within the site would be a good addition. C  E2: Yes. Great detail given in the appendix 8.5 (the HMP) regarding the monitoring of vegetation as part of habitat restoration measures. A  E3: No detail given regarding monitoring of actions related to community funding. However, SPR details a wide range of local
		projects and community initiatives in Argyle & Bute that have benefited from funding totalling £1.6 million so it is assumed that monitoring mechanisms do exist which keep account of where funding by SPR goes. B  B Overall
Overall Grade	_	considered in great detail. These range from biophysical improvements by th actions which seek to improve the recreation value of the site, and finally

economic measures which extend to local communities to help support local projects and initiatives. Each measure is very clearly an attempt at creating a wide range of additional positive benefits and has been considered thoroughly. The only slight weakness is regarding the responsibility and monitoring of the measures. Whilst it is clear SPR is responsible for all the funding requirements more detail could be provided about who takes responsibility for implementing, managing and monitoring the actions.

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	4	Α
Timing of Enhancement	4	Α
Thoroughness of Enhancement	4	Α
Responsibility & Monitoring	3	В

<b>Category of Enhancement</b>	Occurrence
Biophysical	1
Social & Health	1
Economic	1



### 2.7. Full results of EIAR-7

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
Power	Oil/Gas	Cluden to Lochfoot Gas Pipeline	GNI (UK)	RSK	08/2015	As part of the construction of a new gas pipeline between Beattock and Brighouse, Dumfries, Scotland, GNI identified the requirement for an alternative route of the pipeline between Cluden and Lochfoot.  As such, a new EIA was required for this section. The new gas pipeline will diverge from the existing authorised pipeline route to the immediate south of the river Cluden and run for approximately 7.2km to Lochfoot. The route passes through mainly agricultural land used for grazing. The pipeline will comprise a 36inch outside diameter buried steel pipe which will be laid 1.2m beneath the topsoil surface.

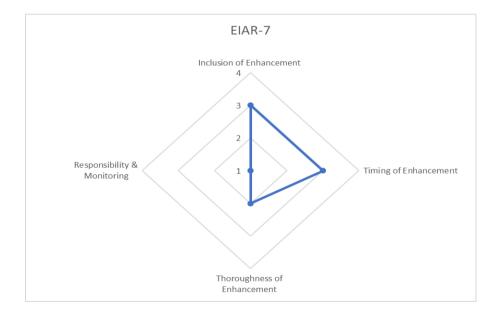
Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
Biophysical	E1 – Compensatory planting of native species	Replacement planting with locally prominent and native species where practicable will serve to enhance or reinforce existing landscape character.	Table 9-10, pp.9-23, 9- 24 of chapter 9. Table 13-1, pp.13-18, 13-19.

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	В	1.1. Is there enhancement measures cited in any of the EIA documentation? How clear is it that it is a deliberate attempt at creating additional positive benefits?	Yes. Enhancement is included as part of compensatory planting due to use of locally prominent plant species. Not clearly an attempt at creating positive benefits, and may be interpreted as compensatory mitigation rather than enhancement.  B
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	Relatively clear. Definitions of enhancement are given throughout the ES. The enhancement action is outlined in chapter 9 'Landscape and Visual' and summarised in chapter 13 'Environmental Management'. Again, not clearly an attempt at creating new benefits.  B
Timing of enhancement	В	2.1. Is it clear which phase of the development (e.g. preconstruction, construction or operation) the enhancement(s) will be implemented? Preconstruction, construction or operation?	E1: Yes. Clear that compensatory planting would occur during operation of the pipeline.  A
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: No. There is brief mention that compensatory planting would mature providing a beneficial effect over time but no discussion of when this is likely to be. E.g. if benefits would occur in the short term or long term. C
Thoroughness of enhancement	С	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond? Are there supporting maps/figures showing where enhancement will occur?	E1: No. Unclear as to where in the development site compensatory planting would occur and where the benefits to biodiversity would occur. Which geographic regions will see the most planting? Where will the visual improvements occur? C

		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people, aspect of local community or other beneficiary?	E1: No. There is no mention of which area planting would occur and which species of replacement planting would be used to provide the benefits. It is outlined that local farmsteads and residential plots will be the most significant receptors to negative visual impacts. Therefore it is a assumed that the visual benefits due to planting are likely aimed at these receptors. However it is not explicit as to who will be the main beneficiaries of these improvements, as this relates mostly to <i>mitigation</i> and not <i>enhancement</i> . C		
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	E1: No description of how the enhancement measure would be implemented or what actions might be taken to ensure it is properly achieved. No discussion of which species types, planting methods, or planned location for compensatory planting. D		
Responsibility & accountability for enhancement	D	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement?	E1: No. There is no mention of who is responsible for overseeing the enhancement aspect of compensatory planting in terms of funding, management or monitoring. Under mitigation planting for new hedgerows there is mention of this planting being subject to maintenance and a replacement planting programme. But otherwise responsibility and accountability for the action is not present. D		
		4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	E1: No detail of follow up, or monitoring of the <i>enhancement</i> aspect of compensatory planting. There is no mention of how supposed positive benefits will be measured and monitored over time. D		
Overall Grade	Whilst compensatory planting has been proposed to both mitigate for visual impacts and reinforce/enhance the surrounding visual amenity it is unclear whether this constitutes a genuine attempt at creating additional positive benefits as part of the development. Overall the enhancement aspect of this replacement planting has been poorly considered with no great detail on when benefits would come into effect; who the main beneficiaries of the action would be; how the benefits would be implemented and delivered, for example which species would be used; and a lack of consideration about who holds responsibility for implementing, managing, and monitoring positive benefits over time to determine whether they are being realised or not.				

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	3	В
Timing of Enhancement	3	В
Thoroughness of Enhancement	2	С
Responsibility & Monitoring	1	D

<b>Category of Enhancement</b>	Occurrence
Biophysical	1
Social & Health	0
Economic	0



#### 2.8. Full results of EIAR-8

### **Description of Development**

Category	Development Type	EIA Title	Developer	EIA Consultant	Date Published	Project Description
General Development	Redevelopment	Glasgow Queen Street Station	Network Rail	Arup	09/2015	Redevelopment of Glasgow Queen Street Station as part of the Edinburgh Glasgow Improvement Programme (EGIP), funded by Transport Scotland and delivered by Network Rail.  The development will see the removal and relocation of existing facilities in and connected to the station. These include: demolition of Consort house; demolition of the 1970s extension to the Millennium hotel; removal of existing station retail units below shed gable. The station concourse is then being redeveloped to provide new facilities and improved entrances to the station.

Enhancement	Enhancement	Description	Evidence in document
Category	Measure		assessed
None	None	No consideration or development of any actions which seek to include additional direct or indirect positive outcomes.	N/A

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	D	1.1. Is there enhancement measures cited in any of the EIA documentation?	No.  The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Timing of enhancement	D	2.1. Is it clear which phase of the development the enhancement(s) be implemented?  Preconstruction, construction or operation?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Thoroughness of enhancement	D	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	The ES and supporting EIA documentation failed to include any consideration for

			additional positive outcomes as part of the development.	
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.	
Responsibility & accountability for enhancement	D	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the	
		enhancement  4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	development.  The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.	
Overall Grade	have been of George Squa	No additional measures which seek to provide positive benefits to the surrounding environment, society, or local community have been considered as part of the EIA process. Whilst the ES does discuss enhancement of views and townscape character in George Square, this is due to the existing design of the station's redevelopment and not because of additional enhancement measures considered within the EIA.		

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	1	D
Timing of Enhancement	1	D
Thoroughness of Enhancement	1	D
Responsibility & Monitoring	1	D

<b>Category of Enhancement</b>	Occurrence
Biophysical	0
Social & Health	0
Economic	0

#### 2.9. Full results of EIAR-9

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
Renewable Energy	Onshore Wind	Clashindarroch II Wind Farm	Vattenfall Wind Power Ltd	SLR	08/2019	An application by Vattenfall Wind Power Ltd to install and operate an onshore wind farm comprising up to 14 turbines and associated ancillary infrastructure. The development would have a generation capacity exceeding 50MW.  The wind farm would be located in Clashindarroch Forest on land north east of the existing and operational Clashindarroch Wind Farm, which is in Aberdeenshire, roughly 6km to the south west of Huntly.  14 three bladed turbines rated between 4MW and 6MW would be installed and operated as well as turbine foundations, crane hardstandings, underground cabling, and a substation compound.

Enhancement	Enhancement	Description	Evidence in document
Category	Measure		assessed
	Habitat Creation and Improvement	Development of a Habitat Management Plan (HMP) based on the findings of the EIA report to ensure species are protected and habitats are enhanced during the	Para 2.12 – 2.15, pp. 4, 5 of NTS
Biophysical		developments operation. In particular, enhancement measures are considered for wildcat populations within and around Clashindarroch Forest. Some provisional HMP objectives for improving wildcat populations include: creation and improvement of wildcat habitat corridors; enhancement of wildcat riparian hunting zones; creation of artificial dens; retaining or creating windthrow areas. These are being developed with the relevant authorities, including Scottish Natural Heritage (SNH), Scottish Wildcat Association (SWA), and Forestry and Land Scotland (FLS).	Para 9.314, p.9-68 of chapter 9. Technical Appendix 9.5 'Outline Habitat Management Plan'
	Local Conservation Funding	Discussion with SWA and SNH to determine ways for the development/developer to support and fund the continuation of a Wildcat Project Officer (WPO) post and the Trap-Neuter-Vaccinate-Release (TNVR) programme. The Wildcat Project Officer post would be a continuation of a current position due to expire in 2020 which promotes wildcat conservation, and manages monitoring, camera traps and volunteers in the Strathbogie area.	Para 2.16 – 2.19, p. 5 of NTS Para 9.315, p.9-69 of chapter 9. Technical Appendix 9.5 'Outline Habitat Management Plan'

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	A	1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. The ES and its supporting documentation clearly pursues measures which create additional positive benefits. Enhancement measures relate to biophysical benefits by creating new habitats and improving existing ones, as well as funding local conservation initiatives. A
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	It is very explicit within the ES and supporting documentation that deliberate attempts have been made to include genuine enhancement actions. These are first outlined and discussed clearly in the NTS. Further detail is provided within relevant technical chapters 8 and 9. Finally a technical appendix is provided, outlining the proposed enhancement measures in detail. A
Timing of enhancement	A	2.1. Is it clear which phase of the development the enhancement(s) be implemented?  Preconstruction, construction or operation?	E1: Yes. It is made explicit that the measures discussed within the HMP to improve existing wildcat habitats and create new ones will be agreed upon prior to development commencing. Implementation of measures will occur during the construction and operational phases.  A
			E2: Yes. It is made explicit that discussions with the relevant authorities such as SWA and SNH will occur prior to any planning decisions and thus commencement of work to agree upon the best way to fund and support a Wildcat Project Officer and the Trap-Neuter-Vaccinate-Release programme. A  A Overall

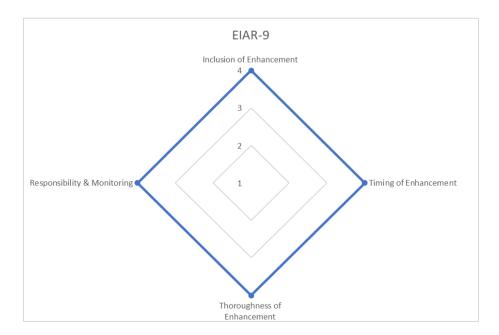
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: Benefits of conservation enhancements are discussed as extending throughout the lifetime of the project and possibly beyond. Clear that the habitat improvements and creation would occur during the operation of the development but not explicit in terms of rough timescales. This is probably due to actions still being developed with relevant consulting bodies. B  E2: It is clear that funding opportunities are being discussed and will be decided before a final planning decision. The ES also makes it explicit that the funding of conservation management would extend for at least 5 years. A
			A Overall
Thoroughness of enhancement	A	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?  Modification to method: note enhancements which apply to the development footprint and ones which are wider-benefit enhancements.	E1: Yes. Detail is given within technical appendix 9.5 (Outline HMP) as to where each measure would be directed. For example habitat corridors would link Clashindarroch Forest to large woodland blocks such as Gartley, Correen and Insch to increase wildcat connectivity. In general, all actions relate to the Strathbogie Wildcat Priority Area (WPA), within and outside of the development. Thus wider area enhancements have been considered also. A  E2: Yes. Clear that funding is directed to the position of a Wildcat Protection Officer specifically for the Strathbogie WPA. Again funding for the TNVR programme pertain specifically to the Strathbogie WPA. Again these can be considered wider area benefits as they extend outside of the development footprint. A
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	A Overall E1: Yes. Clearly directed at local wildcat populations of the Strathbogie SPA. The habitat improvements relate directly to areas of woodland and riparian hunting zones used by wildcats. A

		3.3. Is there a description of how the	E2: Yes. Funding by the developer is clearly directed at two specific local initiatives which seek to enhance the conservation status of wildcats. The first being continued funding for a WPO, the second being funding to continue the TNVR programme within Strathbogie. A  A Overall  E1: Yes. The Outline HMP provides an extremely detailed and
		enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	comprehensive first step in outlining the main objectives for providing habitat enhancement and protection measures. It discusses future consultations with the relevant authorities including SNH, SWA, and FLS to develop the objectives further and implement them. It also details plans to engage with local landowners in the area to facilitate the creation of wildcat habitat corridors. A
			E2: Yes. The Outline HMP details future discussions between the developer, SWA and SNH to agree upon the best course of action regarding funding initiatives for the enhanced conservation of local wildcats. It is clear that the aim for both funding initiatives is to have a decision prior to planning determination for the proposed development. A
Responsibility & accountability for enhancement	A	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement	E1: It is clear within the Outline HMP that Vattenfall (the developer) hold responsibility for consulting with relevant authorities such as SNH, WPA, FLS, and local landowners to achieve the outcomes of the proposed enhancement measures. It is stated the proposed HMP is subject to periodic review and will be updated in light of information from site monitoring by agencies such as SWA or FLS. A
			E2: It is clearly stated within the Outline HMP that Vattenfall (the developer) holds responsibility for funding and managing the WPO position. This is also true for funding of the TNVR programme within Strathbogie WPA. Clear reference to consultation between Vattenfall,

	4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	SNH and SWA to determine the best course of action. It is stated that the WPO role should last for at least 5 years and will involve monitoring of wildcat populations. A  A Overall  E1: There is some detail regarding monitoring by relevant authorities such as SNH and SWA, which will inform the HMP as new information is obtained. Does not specify how long monitoring may extend for in terms of informing the HMP. B  E2: The position of WPO will extend for at least 5 years and funding plans are to be updated. Follow up from submission of planning application will be in line with consultation with SNH and SWA with the objective of agreeing upon a funding agreement before planning decision is given.
		B Overall
Overall Grade	(HMP) has been designed to protect and enhance the colin accordance with guidance from SNH, SWA, and FLS. Ox	nefits as part of this development. Specifically, a habitat management plan inditions favoured by local wildcat populations. This plan is being updated werall, the EIA process clearly made excellent attempts at developing these timing; thoroughness; and responsibility and accountability. The actions but into place to ensure the measures are realised.

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	4	Α
Timing of Enhancement	4	Α
Thoroughness of Enhancement	4	Α
Responsibility & Monitoring	4	Α

<b>Category of Enhancement</b>	Occurrence
Biophysical	2
Social & Health	0
Economic	0



#### 2.10. Full results of EIAR-10

Category	Development	EIA	Developer	EIA Consultant	Date	Project Description
	Туре	Title			Published	
Renewable Energy	Tidal	Brims Tidal Array	Brims Tidal Array Limited (BTAL)	Multiple. Including: Aquatera, RHDHV, Xodus, NRP, Anatec, ORCA	05/2016	Joint venture application by SSE and Openhydro partnership forming BTAL to construct and operate an offshore tidal array. The project will comprise 200 fully submerged tidal turbines with a total capacity of 200MW.
				rilates, oner		The ES covers both offshore and onshore components of the project, including: tidal turbines and support structures; inter-array cabling and subsea cable hubs; landfall for export cables; onshore underground cable routes; temporary works to facilitate cable landfall; road access improvements; and onshore substation.

Enhancement	Enhancement	Description	Evidence in document
Category	Measure		assessed
None	None	No consideration or development of any actions which seek to include additional direct or indirect positive outcomes.	N/A

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	D	1.1. Is there enhancement measures cited in any of the EIA documentation?	No.  The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Timing of enhancement	D	2.1. Is it clear which phase of the development the enhancement(s) be implemented?  Preconstruction, construction or operation?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Thoroughness of enhancement	D	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	The ES and supporting EIA documentation failed to include any consideration for

			additional positive outcomes as part of the development.		
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.		
Responsibility & accountability for enhancement	D	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.		
		4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.		
Overall Grade	No additional measures which seek to provide positive benefits to the surrounding environment, society, or local have been considered as part of the EIA process. Whilst the ES does discuss enhancement of views and townscape George Square, this is due to the existing design of the station's redevelopment and not because of additional entered measures considered within the EIA.				

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	1	
Timing of Enhancement	1	
Thoroughness of Enhancement	1	
Responsibility & Monitoring	1	

<b>Category of Enhancement</b>	Occurrence
Biophysical	0
Social & Health	0
Economic	0

#### 2.11. Full results of EIAR-11

Category	Development Type	EIA Title	Developer	EIA Consultant	Date Published	Project Description
Transport	Road	A9 Dualling: Dalraddy to Slochd	Transport Scotland	Atkins + Mouchel (now part of WSP)	08/2018	A phase of the extensive A9 Dualling Programme consisting of improvements between Dalraddy and Slochd. The Scheme will comprise dualling approximately 25km of the existing A9. This will include widening/upgrades to the existing carriageway as well as the provision of three new major grade separated junctions at Aviemore South, Granish, and Black Mount.

Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
	Enhance and Restore Watercourse and Riparian Habitats	Where rivers are required to be realigned/diverted either permanently or temporarily, sustainable features are to be incorporated which help to maintain flow and enhance biodiversity/habitats. These may include the use of woody materials, gravel bars, vegetation and riffle pools. The design may also incorporate resting pools/spawning habitats for fish.	Mitigation Item P11-W22. Table 21.5, p.21- 36 p.11-107
			Mitigation Item P11-E33. Table 21.6, p.21- 52 p.12-40
Biophysical	Maintain/Enhance Habitats and Biodiversity	The reinstatement of lost habitats will be done on a like-for-like basis and where possible will seek to provide enhancements by replacing poor habitats with richer species.	Mitigation Items P11-E19, P11- E24, P11-E25, . Table 21.6
		For heath mitigation planting, birds-foot trefoil will be planted where appropriate to maintain/enhance invertebrate habitats.	pp.21-46, 21-48
		Where retained, dead wood will be placed throughout a variety of locations to benefit species including reptiles, invertebrates and pine martins.	

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	A	1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. The ES and its supporting documentation discusses attempts at maintaining/enhancing aspects of the biophysical environment as part of mitigation commitments. These are outlined in the relevant technical chapters such as chapters 11, 12, 13, and 14. Furthermore, each mitigation item which seeks to add enhancement to a specific aspect of the biophysical environment is outlined in chapter 21 'Schedule of Environmental Commitments'.
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	Whilst measures are referred to as 'enhancing' a particular aspect of the biophysical environment, there is difficulty distinguishing these as deliberate attempts at introducing additional positive benefits. All of the actions are in response to a negative impact and so may be considered more offsetting or compensating rather than genuine enhancement. However, despite the actions resembling more compensatory measures, thought has been given as to how they may provide benefits, and thus has been considered enhancement as part of this assessment. There were other measures within the ES labelled as attempts to 'enhance' aspects of the environment, but were deemed to be compensation measures instead of deliberate attempts at creating new benefits. Thus these measures are not included in this assessment.
Timing of enhancement	В	2.1. Is it clear which phase of the development the enhancement(s) be implemented? Preconstruction, construction or operation?	E1: Yes. Clear that attempts to introduce habitat and biodiversity enhancement measures will be implemented in both construction and operation, with specific reference made to the Contractor implementing specific actions.

	E2: Yes. Made explicit within the ES that actions to compensate for lost areas of habitat through construction, and attempts to introduce biodiversity and habitat benefits as part of the compensation, will occur during construction of the Scheme. A E3: Yes. Made explicit within the ES that attempts to increase visual amenity as part of the scheme design is to occur during preconstruction and construction. A
2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: Not made explicit within the ES or supporting documentation when benefits to in-channel and riparian habitats will be realised. Presumably given that the measures will be constructed as part of construction/operation phases the changes to watercourses will be immediate. However, there is no discussion of how these interventions might mature over time and when benefits to aquatic life will occur. E.g. when will fish species benefit from resting pools? C  E2: Not explicit when benefits will be realised in terms of habitat and biodiversity enhancements. Discussion of compensatory planting with specific species mixes, but lack of detail as to when these species will mature and provide habitat/biodiversity benefits. Similarly, discussion of using dead wood, boulders, tree stumps, and scalloping of woodland edge to provide habitat benefits to a range of species but it is unclear when this will come into effect. Presumably it will be more immediate as plants will not have to mature but it is not specified. C  E3: Not explicit when planting and use of natural stone features will provide landscape benefits. Presumably planting around SuDS will take time to mature but use of low level stone walls will be more immediate. However, neither is specified at any point. C

Thoroughness of enhancement	В	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	E1: It is clear that attempts to provide habitat/biodiversity enhancement applies only to watercourses which will be negatively affected through realignment/diversion. However, it is not specified which watercourses or where in the scheme, only that measures will occur 'Throughout the Proposed Scheme'. B
			E2: Not entirely clear. In terms of compensatory planting there are extremely detailed supporting figures (figure 13.4) which indicate proposed locations for planting regimes. However, it is not clear within these where planting of specific species to provide habitat/biodiversity benefits will occur. Likewise, strategic placements of dead wood, boulders and tree scalloping is not detailed. Again, the only detail is that it will occur 'Throughout the Proposed Scheme'. B  E3: Clear that visual enhancements pertain to both SuDS pond verges. Scheme designs which seek to provide visual amenity benefits such as walls and junctions are specified as occuring at both Granish and Aviemore South junctions within the scheme.
			B Overall
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	E1: The enhancement is directed toward watercourses which are to be realigned or diverted. In terms of which habitats would be created and which aquatic species would benefit from the proposed measures it is not clear. Reference is made to resting spots/spawning locations for salmonids but no more detail is given as to which aspects of biodiversity are aimed at being improved. B
			E2: The enhancement measures are directed toward a range of species which are detailed clearly. For example, compensatory heath planting will include birds-foot trefoil to provide benefits for invertebrates and pollinators. Placement of dead wood, boulders and scalloping of

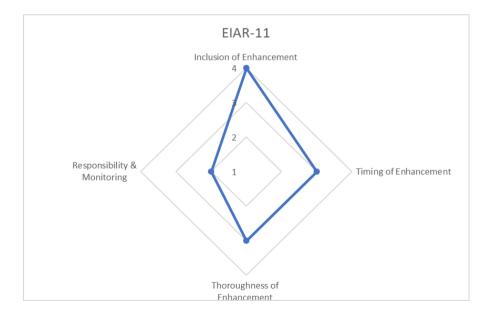
	woodland edges is directed toward providing habitats for reptiles, invertebrates and pine martins. A  E3: Measures to improve the visual amenity of the scheme at specific locations are clearly directed toward all users, including both road users and NMU users. Specific reference is made to improving the visual aspect of the 'gateway' to Aviemore. A  A Overall
3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	E1: Yes. There is a detailed discussion of measures to be carried out by the Contractor in terms of river culverts, realignments, and bank/bed protection. These include creating a fish passage/'buffer zone' to enhance the watercourse and allow fish to rest while moving upstream. Further steps include using various materials/methods to enhance and restore habitats. A
	E2: Reasonable description of measures to be carried out but could be more detailed. For example, discussion of using appropriate seed mixes/species within planting regime to provide wildlife enhancement. However there is no detail as to how this might be implemented and achieved. A separate supplementary appendix detailing some of the techniques/actions to be implemented in terms of securing habitat/biodiversity benefits would help clarify the measures as deliberate attempts at creating additional benefits and not just part of mitigation. B
	E3: No detail is given as to how planting would be designed around SuDS to provide wildlife/visual benefits. Likewise there is little detail given regarding the use of natural stone to provide local visual benefits. Again, a separate technical appendix detailing some of the measures planned such as sourcing of rock, visualisations of localised features etc would help clarify the measures as being deliberate attempts at creating additional benefits. C

			B Overall
Responsibility & accountability for enhancement	С	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement	E1: It is clear that responsibility for implementing the watercourse modifications in line with the ES is the responsibility of the Contractor. It is stated that some of these measures should be coordinated in consultation with aquatic ecologists, geomorphologists, and landscape architects. It is presumed Transport Scotland is responsible for funding the enhancement but not made explicit. There is no detail of who holds responsibility for ensuring enhancement measures are realised once implemented within the Scheme. B  E2: There is brief discussion that blasted rock material will be strategically placed under the direction of an ECoW. However, no further discussion is given as to who holds responsibility for planting, use of dead wood, and scalloping of trees. Again it is presumed Transport Scotland is responsible for funding and managing the actions overall but this is not made explicit. There is not detail of who holds responsibility regarding the follow-up of the measures and how they are performing in terms of providing the envisaged benefits. B
			E3: No detail as to who hold responsibility for any phases of visual/landscape enhancement. This is in terms of both planting around SuDS and junction designs. C  B Overall
		4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	E1: No mention of follow-up or monitoring of alterations to watercourses and measures which seek to provide habitat/biodiversity improvements. D
			E2: No mention in the ES or supporting documentation as to any plans for monitoring or follow-up specifically for the actions which seek to provide enhancement. Whilst ecological monitoring is discussed

	throughout the ES it pertains only to mitigation actions and not for any of the enhancement measures. D  E3: No detail as to any monitoring or follow-up commitments for planting around SuDS or for the design of junctions to make them more visually appealing. Detail on how visual improvements would be maintained over time to ensure they do not become degraded would help to clarify Transport Scotland's commitment to ensuring long-term
	visual improvements. D  D Overall
Overall Grade	Overall a reasonable attempt was made to create new benefits within the EIA process. There was difficulty distinguishing these as genuine enhancements, separate from mitigation of adverse impacts. For example, each measure discussed in this assessment was developed in response to a negative impact and often involved designing the mitigation to provide additional benefits such as specific watercourse designs, planting regimes or landscaping designs. However, this does not mean that the overall impact is beneficial, and may only still be considered an attempt at reducing the overall negative impact of the Scheme. Thus it remains subjective as to what constitutes a genuine attempt at creating new positive benefits, and what is still part of mitigating adverse impacts. Actions that were considered enhancement performed reasonably well in terms of defining the timescale for their implementation, and were developed to a good level within the ES. Where they fell short was with detailing any follow-up or monitoring commitments. Whilst monitoring commitments were discussed for other mitigations, no such discussion was given to plans to create positive effects for the environment.

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	4	Α
Timing of Enhancement	3	В
Thoroughness of Enhancement	3	В
Responsibility & Monitoring	2	С

<b>Category of Enhancement</b>	Occurrence
Biophysical	3
Social & Health	0
Economic	0



#### 2.12. Full results of EIAR-12

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
Power	Transmission	Lairg to Loch Buidhe Reinforcement	Scottish Hydro Electric Transmission plc (SHE Transmission)	Ramboll	01/2019	Application to construct and operate 16 kilometres (km) of new 132kv overhead electricity transmission line (OHL). This proposed Scheme would also include ancillary works such as tree felling, new accesses, the installation of sealing end compounds, and the installation of underground cables.
						The Scheme begins at Dalchork substation, north of Lairg, with the proposed OHL running 16km and an underground cable for another 1km to connect to the existing Loch Buidhe substation.

Enhancement	Enhancement	Description	Evidence in document
Category	Measure		assessed
None	None	No consideration or development of any actions which seek to include additional direct or indirect positive outcomes.	N/A

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement D		1.1. Is there enhancement measures cited in any of the EIA documentation?	No.  The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Timing of enhancement	D	2.1. Is it clear which phase of the development the enhancement(s) be implemented?  Preconstruction, construction or operation?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Thoroughness of enhancement	D	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.

		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.				
Responsibility & accountability for enhancement	D	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement  4.2. Is there detail of follow-up and monitoring of the	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.  The ES and supporting EIA documentation				
		enhancement post-implementation? If so, how long does this extend?	failed to include any consideration for additional positive outcomes as part of the development.				
Overall Grade	community character in	D – No additional measures which seek to provide positive benefits to the surrounding environment, society, or local community have been considered as part of the EIA process. Whilst the ES does discuss enhancement of views and townscape character in George Square, this is due to the existing design of the station's redevelopment and not because of additional enhancement measures considered within the EIA.					

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	1	D
Timing of Enhancement	1	D
Thoroughness of Enhancement	1	D
Responsibility & Monitoring	1	D
Overall grade: 1 = D	·	

<b>Category of Enhancement</b>	Occurrence
Biophysical	0
Social & Health	0
Economic	0

#### 2.13. Full results of EIAR-13

Category	Development Type	EIA Title	Developer	EIA Consultant	Date Published	Project Description
General Development	Mixed Use	Bertha Park	Springfield Properties plc	RSK	06/2015	Mixed use development at Bertha Park to expand the City of Perth by approximately 3000 homes, including ancillary development such as supporting infrastructure, community facilities, local shops and businesses. The development is to be built over three phases up to a maximum period of 30 years. The three phases are as follows:  Phase 1: 2017-2027 Phase 2: 2027-2037 Phase 3: 2037-2047  Springfield Properties sought to secure a Strategic Masterplan which formed the basis for application for 'Planning Permission in Principle'.

Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
Biophysical	E1 Maintain/Enhance Habitats and Biodiversity	Use of locally appropriate hedgerow and other plant species to enhance the visual environment as well as provide new habitats with the potential to enhance local biodiversity and create wildlife corridors. Existing water bodies such as Gelly Burn and Bertha Loch will be retained and enhanced for amenity and biodiversity value. Increased woodland planting along the River Almond to enhance the riparian corridor. SuDS strategy incorporates features which aim to enhance and improve the diversity of habitat.	Para 14.5.7, p.410, chapter 14. Table 15.3, p.434, chapter 15.
Social & Health	- E2 Enhancement of local woodland area	A habitat and woodland management plan has been produced which details measures to manage and conserve the existing habitat. The plan also details the creation of new habitat, with the aim of protecting and enhancing woodland areas. The plan aims to enhance various aspects of existing and new woodland areas including enhancing their wildlife habitat areas, recreation potential, and visual quality.	Para 10.7.11, p.236, chapter 10. Table 15.3, p.439, chapter 15. 'Woodland Management Plan 2017-2022 and beyond'
	E3 Increased recreation/amenity value  E4 Local job creation	Enhancement of access routes and open space provision throughout the proposed scheme. New recreation sites will be provided such as playgrounds, orchards, allotments, parks, and an enhanced wetland burn corridor between Bertha Loch and the River Tay. These existing water bodies will also be enhanced for amenity and biodiversity value.  Job opportunities will be provided through the additional infrastructure provisions as	NTS p.16,
		part of the Scheme. These include in the new leisure and community facilities, primary and secondary schools, and as a result of increased demand on local council services.	

Performance	Indicator	Questions in analytical framework	Answer & Grade
Indicator	Grade		
Inclusion of enhancement	A	1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. There are multiple measures which seek to provide enhancement as part of the development. Given the size and scale of the proposed development there are a wide range of measures. Some pertaining to biophysical environment such as increased habitat and biodiversity throughout the Scheme. Other actions relate to socioeconomic benefits such as increased recreational amenity and local job creation. A
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	It is clear within the ES and supporting documentation that enhancement has been considered. Actions are first referenced in the NTS and discussed in relevant technical chapters. The most detailed description of proposals for enhancement come from supporting documentation such as the Habitat and Woodland Management Plan and the development 'Masterplan', which provides additional and extensive detail on the Scheme design and objectives. Each action is clearly an attempt at creating additional positive benefits, and therefore is considered an enhancement. Particularly E1 and E2. E3 and E4 may be somewhat more difficult to distinguish as an attempt at creating additional positive benefits given they are existing components of the Scheme design. Regardless, they are designed clearly to provide benefits above and beyond mitigation and therefore are still considered 'clearly' an enhancement. A
Timing of		2.1. Is it clear which phase of the development (e.g. preconstruction,	E1: Yes. Clear that enhancement measures which seek to benefit local biodiversity and habitats, including planting regimes, enhancement of
enhancement	A	construction or operation) the enhancement(s) will be implemented? Preconstruction, construction or operation?	water features, and SuDS design will be implemented during construction. It is also clear that these actions relate to all three phases of development outlined within the Masterplan. A

	E2: There is a detailed timeline provided for when objectives of the Habitat and Woodland Management Plan are to be implemented. These include short term work programme from 2017-2022 and a longer term work programme up until 2037. These objectives cover all aspects of enhancement described above including ecological, recreational and landscape. A
	E3: Not entirely explicit within the ES or supporting documentation when enhancement of access routes and wetland burn corridors will be implemented within the development. This is true for the creation of green corridors also. It is presumed to be during construction and throughout all phases but not made explicit. Brief mention that recreation provisions will occur throughout Phases 1 to 3 of the Scheme.
	E4: Clear that job creation will be associated with both construction and operational phases of development. For example, construction is aimed at benefiting local procurement and supply chains as well as workforces. Jobs will be created as part of the operation of additional infrastructure in the development such as schools, leisure and other community facilities. A
2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: Yes. It is detailed in the ES and accompanying Masterplan when each enhancement action which seeks to improve habitats and biodiversity will occur in terms of phasing of the project. As above each phase has a detailed construction programme timeline. It is clear various actions will be staggered across all three phases of development. However, there could be greater detail supplied with regard to when specific actions will likely bring benefits. For example, when will Riparian planting and creation of habitat corridors mature to provide benefits? When will SuDS designs provide wildlife benefits? B

			E2: The Habitat and Woodland Management Plan provides detailed work programme timelines for when each action within the plan is to be delivered. Good discission of short term and long term goals as to when desired benefits are likely to come into effect. A  E3: Good discussion of which actions are planned for which phases of the development. For example, which aspects of creating new access routes and open space provisions are to be delivered in Phase 1 (2017-2027) and which are to be delivered in later phases. A  E4: As above. Good discussion of when designated employment sites within the entire development Masterplan are being phased across different periods of development to provide local benefits. The same applies for construction employment opportunities. A
Thoroughness of enhancement	A	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	E1: Yes. Extremely clear geographically. The Masterplan provides thorough and detailed maps as to where each planned enhancement measure will occur. For example, the Masterplan details locations of wildlife corridors, water body enhancement, riparian planting, and SuDS locations. These are also discussed within the relevant technical chapters of the ES such as Riparian planting to occur alongside the River Almond to create a natural wildlife corridor. A  E2: Yes. Extremely clear. Within the Habitat and Woodland Management Plan there is a detailed accompanying figure which highlights proposed Woodland planting regimes throughout the development site. This includes underplanting, restocking, and new planting regimes. The plan also details 20 woodland 'compartments' with distinct management or enhancement actions for each compartment. A

	E3: Yes. Extremely clear. Proposed orchards and community growing areas are outlined clearly within the Masterplan. Again the enhanced wetland burn corridor linking Bertha Loch and the River Tay is described in detail within the ES, and shown clearly geographically in accompanying figures and within the Masterplan. A  E4: Yes. Extremely clear. The Masterplan provides clear locations for employment centres including retail, financial, business centres, and assembly and leisure sites. Proposed school locations are also given. In terms of construction benefits it is clearly directed geographically toward local procurement/employment opportunities within Scotland and Perth and Kinross council area. A  A Overall
3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	E1: Yes. Clearly directed at local aspects of biodiversity and habitat areas. These include riparian species and habitats, as well as local amphibians likely to benefit from SuDS designs. It also pertains to local species of hedgerow and native plants to provide biodiversity benefits. A  E2: Yes. Clearly directed at local woodland areas and habitats. Detailed tree species are provided within the Habitat and Woodland Management Plan in terms of planting and favourable management regimes to provide ecological benefits. Benefits are also directed at local community members and future residents by providing enhanced access tracks and signposting through local woodland areas. A
	E3: Yes. Clearly directed towards benefiting various users of the local area. These include walkers and cyclists, visitors, and residents.  Particularly users will be able to benefit from enhanced water bodies such as Gelly Burn and Bertha Loch. A  E4: Yes. Clearly directed at providing local socioeconomic benefits by creating new jobs both in construction and operation phase. Impetus is

		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	placed on the contractor and developer to hire locally for construction. Different local job opportunities are discussed as part of the operational phases of the development, e.g. teachers, leisure centre workers, local council jobs. A  A Overall  E1: Yes. Extensive detail is provided within the Landscape Management Plan in terms of species to be used, phasing of construction, and long term management goals. A  E2: Yes. Great detail is provided within the Habitat and Woodland Management Plan in terms of species of woodland and trees to be planted, how objectives for improved local amenity might be achieved, phasing of planting, and long term management plans. A  E3: No explicit detail is provided as to how each enhancement action which seeks to provide local recreation and amenity benefits will be achieved. Whilst there is a good description of who and where the actions are directed there is a lack of detail as to how they will be achieved. C  E4: There is suitable details in terms of how the benefits will be achieved by creating local jobs. Job types are described briefly. However, more detail is required in terms of local procurement and job creation and how this might be guaranteed rather than just stated within the ES. B  B Overall
Responsibility & accountability for enhancement	В	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is	E1: It is reasonably clear that Springfield Properties plc (the developer) is responsible for funding and managing measures which seek to enhance local biodiversity and habitats. Also made clear the Contractor holds some responsibility in terms of implementation. Reasonable discussion of

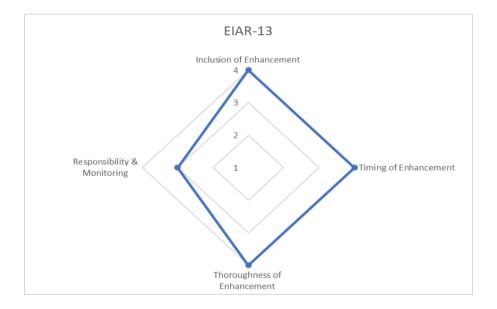
there mention of any partnerships or	management commitments but responsibility for these could be
consultees involved with enhancement	developed further. No partnerships. B
	E2: Clear that Springfield Properties plc (the developer) is responsible for funding and managing the measures outlined within the Habitat and Woodland Management Plan. Relatively clear the contractor holds some responsibility for implementation. However, more detail could be provided regarding responsibility for enhancement within the plan. Specifically who will oversee and manage woodland management measures in the short, medium and long term. Will an ECoW be present? No partnerships. B
	E3: Not entirely explicit within ES or supporting documentation. However, it is implied throughout the text that the developer ultimately holds responsibility for funding and managing provision of new recreation and amenity opportunities as outlined in the Masterplan. However, more detail could be provided regarding who holds responsibility for implementing and managing these measures in the short, medium and long term. No partnerships. B
	E4: Relatively clear that Springfield properties holds responsibility for local employment and procurement opportunities. It is also implicit within the ES that job creation opportunities within the operational phase of the development will pass to the relevant employers such as schools, leisure centres, local councils etc. More detail could be provided regarding any accountability of the developer or the contractor for ensuring that the local workforce and supply chain is prioritised. No partnerships. B
	B Overall
4.2. Is there detail of follow-up and monitoring of the enhancement post-	E1: Reasonable discussion of management of hedgerow planting over different timescales. However, lacking detail for other measures such as
monitoring of the emidicement post-	enhancement of water bodies, riparian planting, and SuDS designs. There

implementation? If so, how long does this is no discussion of follow-up or monitoring commitments for these extend? actions. C E2: Good discussion of monitoring and follow-up commitments of woodland management actions provided within an outline work programme. This details commitments to different actions over different time periods. It is stated that a review of the Habitat and Woodland Management Plan will occur every 5 years and build upon information gathered during preceding phases. A E3: No discussion of monitoring and follow-up commitments specific to improved recreation/amenity such as enhanced wetland areas, provision of access tracks, orchards, playgrounds etc. Some detail about commitments to assessing how these measures are performing in terms of providing local benefits would be beneficial. C E4: No discussion of monitoring/follow-up in terms of local job creation to assess where employment has had benefits. The same applies for local procurement opportunities. Discussion of the developers commitment to monitor employment numbers and where jobs are being created within the development would be beneficial. D C Overall **Overall Grade** Overall the EIA process has made clear and well thought out attempts at including additional positive benefits as part of this development. Given the size and scale of the proposal in terms of what is planned over the next 30 years the EIA has used this as an opportunity to develop measures within the Masterplan that seek to provide multiple benefits to both the biophysical environment and local socioeconomics. All of the measures proposed are clearly deliberate attempts at creating new benefits rather than mitigating adverse ones. For example, planting has been designed in a way to enhance both local amenity and provide wildlife corridors throughout the development, making provision for local ecology. The retention and enhancement of local wetland areas also serves this dual purpose of providing habitat and wildlife benefits as well as recreation and amenity opportunities to the residents of the development. Each action was well considered in terms of when it will be implemented. This was primarily in terms of which phase of development the action will be implemented (Phase 1, 2, or 3). The actions were clearly well thought out in terms of geographically where they will be implemented and where benefits will be directed. This is also true in terms of which aspects of the environment/local society and economy will experience the benefits of the enhancements. It was

reasonably clear who hold responsibility for these measures however this could have been developed a little further and made
more transparent. The only aspect which fell short was providing definitive commitments to follow-up and monitoring of these
specific enhancement measures.

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	4	Α
Timing of Enhancement	4	Α
Thoroughness of Enhancement	4	Α
Responsibility & Monitoring	3	В

<b>Category of Enhancement</b>	Occurrence
Biophysical	2
Social & Health	3
Economic	0



### 2.14. Full results of EIAR-14

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
Power	Transmission	Inveraray to Crossaig 275 kV Overhead Line Reinforcement	Scottish Hydro Electric Transmission Plc	Ramboll	07/2018	Application by SHET to construct and operate 81km of new Overhead Line (OHL) between Inveraray and Crossaig, in Argyle, Scotland. The new line is a 275 kilovolt (kv) transmission, supported by steel lattice towers.
						The development starts at the existing Inveraray switching station, and runs 81km to the south, to the existing substation at Crossaig. As well as the construction of OHL and steel lattice towers the development includes ancillary works such as vegetation management, access tracks, and tower working areas.
						The development site is in close proximity to designated sights of SSSI, and SAC, particularly Tarbert Woods SAC.

Enhancement	Enhancement Measure	Description	Evidence in
Category			document
			assessed
Biophysical	E1 Vegetation	An operational corridor would be required for the development, with removal of	Para 5.6.12, p.
	management to benefit	woodland to facilitate construction. In addition to maintaining this operational	18 of chapter 5.
	biodiversity	corridor, SHET would endeavour to consider promoting biodiversity in the woodland	Table 12.1, p. 6
		edge and facilitate wildlife connectivity through the corridor. This may be achieved	of chapter 12.
		through leaving felled or standing deadwood.	Para 11.4.10, p.
			10 of chapter 11.

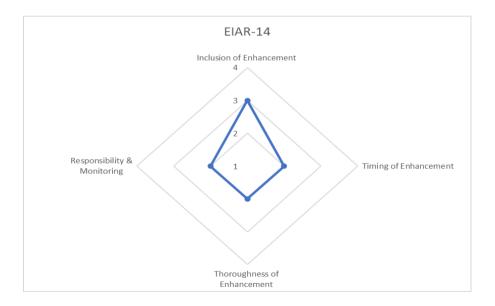
Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	В	1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. Within technical chapter 5 'Ecology and Nature Conservation' there is reference made to managing the operational corridor in a way as to benefit local biodiversity.  A
ennancement		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	The measure is discussed transparently, however it is less clear whether this constitutes <i>genuine</i> enhancement compared to traditional mitigation. Given that woodland is to be felled to create the operational corridor, favourable management of that lost habitat resembles more mitigation rather than a deliberate attempt at creating new benefits. Particularly when some of the measures suggest include leaving felled and dead wood in place to provide new habitats. B
Timing of enhancement C		2.1. Is it clear which phase of the development (e.g. preconstruction, construction or operation) the enhancement(s) will be implemented? Preconstruction, construction or operation?	E1: Reasonably clear that favourable management of the corridor would occur during the operation of the development. B
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: No. Timelines are not provided specific to the enhancement of local habitat and biodiversity. Whilst timelines are provided for the general maintenance of the operational corridor, no such timeline exists for management to provide enhancement. C
Thoroughness of enhancement C		3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	E1: Clear that it pertains to the operational corridor, although there is no detail as to where within the operational corridor management would be specifically directed. Given the proposal is 81km in length, specificity as to where favourable environmental management to encourage biodiversity enhancement would be useful. C

		<ul> <li>3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?</li> <li>3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?</li> </ul>	E1: Whilst it is directed to species/habitat areas within the operational corridor more detail could be provided. There is discussion of particular emphasis on regenerating vegetation and within areas of ancient woodland habitat. B  E1: No. Whilst there is a description of how general maintenance of the operational corridor will be carried out there is no description specific to enhancement. Brief detail is provided regarding allowing felled trees and dead wood to remain as well as managing low growing vegetation to deliver biodiversity benefits. However, there is no discussion of how this would be achieved and who would carry it out. More detail is required in terms of the actions to be taken to ensure these measures would provide benefits. C	
Responsibility & accountability for enhancement	С	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement	E1: No. Whilst SHET takes responsibility for funding and managing the operational corridor it is not clear who holds responsibility for implementing and managing the enhancement measures. There is no accountability for the developer if enhancements aren't achieved as it is not the primary goal of the operational corridor. Consultations highlighted the desire for enhancement within Priority Habitats, however there is no partnerships within any relevant authorities to develop the enhancement measures discussed. C	
		4.2. 4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	E1: No. No detail as to any commitment regarding follow up and monitoring of potential biodiversity benefits. As above, there is reference made to general management commitments of the operational corridor, but it is not clear if this includes monitoring or follow up of measures specifically aimed at benefiting biodiversity.	
Overall Grade	Whilst there is mention of enhancement within the ES for this development it remains unclear whether it constitutes a <i>genuine</i> attempt at creating additional positive benefits as part of the Scheme. The measures proposed appear to be more of an afterthought, added on to existing commitments to manage an operational corridor as part of the development. The operational corridor would see the felling of woodland areas, and thus it is difficult to envisage the favourable management of this corridor as constituting deliberate enhancement. This is supported by the fact that these management strategies are not well developed within the ES. It is unclear when benefits would likely come into effect and where they are specifically directed in terms of geographic location and receptor/beneficiary (species, habitat area etc). Furthermore, there is no detail provided in terms of who			

holds responsibility for ensuring the enhancement is implemented and whether there is any commitment to monitoring or
following-up the enhancement over the operation of the development.

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	3	В
Timing of Enhancement	2	С
Thoroughness of Enhancement	2	С
Responsibility & Monitoring	2	С

<b>Category of Enhancement</b>	Occurrence
Biophysical	1
Social & Health	0
Economic	0



### 2.15. Full results of EIAR-15

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
Transport	Road	A90/A937 Laurencekirk Junction Improvement Scheme	Transport Scotland	Amey	12/2019	The A90 forms the main link between Dundee and Aberdeen, with Laurencekirk situated approximately 40km south of Aberdeen. The junction improvement scheme at Laurencekirk includes a new grade separated junction located at the existing at grade south junction into Laurencekirk. This aims at reducing the number of accidents at the junction and to increase network efficiency along the A90.
						The surrounding area is predominantly rural properties and high quality agricultural land with pockets of mixed woodland such as Denlethen Wood.

Enhancement	Enhancement	Description	Evidence in
Category	Measure		document
			assessed
None	None	No consideration or development of any actions which seek to include additional direct or indirect positive outcomes.	N/A
		The ES discusses enhanced views/biodiversity through a carefully selected compensatory planting regime but for the purposes of this assessment this was deemed as compensation mitigation and not genuine enhancement. This is due to the fact that there will be some significant residual landscape and visual effects and proposed planting regimes serves to mitigate for this by using	
		landscape and visual effects and proposed planting regimes serves to mitigate for this by using locally appropriate and native species planting.	

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
	0.000	1.1. Is there enhancement measures cited in any of the EIA documentation?	No.
Inclusion of			The ES and supporting EIA documentation
enhancement	D		failed to include any consideration for additional positive outcomes as part of the development.
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Timing of		2.1. Is it clear which phase of the development the enhancement(s) be implemented?	The ES and supporting EIA documentation failed to include any consideration for
enhancement	D	Preconstruction, construction or operation?	additional positive outcomes as part of the development.
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Thoroughness of enhancement	D	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.

		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.	
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.	
Responsibility & accountability for enhancement	D	<ul> <li>4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement</li> <li>4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?</li> </ul>	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.  The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.	
Overall Grade	have been of selected corollage to the f	No additional measures which seek to provide positive benefits to the surrounding environment, society, or local community have been considered as part of the EIA process. Whilst the ES does discuss enhanced views/biodiversity through a carefully selected compensatory planting regime, this was deemed as compensation mitigation and not genuine enhancement. This is due to the fact that there will be some significant residual landscape and visual effects and proposed planting regimes serves to mitigate for this by using locally appropriate and native species planting.		

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	1	D
Timing of Enhancement	1	D
Thoroughness of Enhancement	1	D
Responsibility & Monitoring	1	D

<b>Category of Enhancement</b>	Occurrence
Biophysical	0
Social & Health	0
Economic	0

### 2.16. Full results of EIAR-16

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
General Development	Redevelopment	Land at Edmonston, The Wisp	Springfield Properties Plc	Waterman	11/2016	Application for planning permission in principle to redevelop land at Edmonston, The Wsip, south east Edinburgh. The site extends 64ha and is bound to the east by the Wisp, an unclassified road.  The scheme comprises up to 750 residential units, a primary school, and associated landscaping and road.  The site currently comprises mostly rough open land with dispersed areas of woodland. A public transport route currently bisects the site, with Niddrie Burn crossing the site in close proximity to this route.

Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
Biophysical	E1: Ecological enhancement	Protection and enhancement of proposed SuDS ponds as well as enhancing existing green corridors to improve suitable habitats for a range of species. Landscaping proposals will use predominantly native species of benefit to wildlife to provide foraging opportunities.	Para 9.153 – 9.169, pp. 9-22 – 9-27 of chapter 9. Supplementary 'Landscape Design Statement'
Social & Health	E2: Increased provision and promotion of sustainable transport	Within western part of site the existing core paths and cycle routes would be enhanced to form a managed network of sustainable travel options. In addition to physical design measures new residents would be provided with a 'Travel Pack' which would include walking and cycling maps, public transport timetables, and information on sustainable transport methods and their health benefits.	Para 4.26, 4.28, pp. 4-5, 4-6 of chapter 4.
	E3: Local job creation	Reconciliation of local skills and education levels of local communities with those needed within the development in order to promote job opportunities. There is scope to work with Skills Development Scotland (SDS) and Edinburgh's job strategy 'Joined up for Jobs' to identify and promote local employment opportunities. Information on opportunities should be provided early to local communities and stakeholders.	Para 5.64, 5.65, p. 5-10 of chapter 5.

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	A	1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. Enhancements are first discussed within the NTS with respect to landscaping and planting to provide increased biodiversity value. Reference is also made to enhanced provision of core routes and cycling paths. These are discussed further within the relevant technical chapters. A
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	Enhancements are discussed transparently throughout the NTS and the full ES. It is not entirely clear as to whether the actions presented constitute legitimate attempts at creating new, positive benefits. Particularly those concerning ecological enhancement as they resemble more of an attempt to mitigate adverse impacts through planting regimes. Socioeconomic enhancements are more clearly genuine attempts at creating new benefits. A
Timing of enhancement	В	2.1. Is it clear which phase of the development (e.g. preconstruction, construction or operation) the enhancement(s) will be implemented? Preconstruction, construction or operation?	E1: Yes, clear that landscaping proposals, and enhancement of SuDS features and green corridors will occur during the construction of the development. A  E2: Not entirely explicit within ES or supporting documentation. It is stated that given the residential nature of development operational employment opportunities will be limited. It is therefore presumed that any job creation pertains to construction although this necessitates further detail. B
			E3: Not entirely explicit when the enhancement to core paths and cycle networks will occur, presumed to be during construction. The 'Travel Packs' are to be issued to new residents and therefore is being developed throughout the entire Scheme and implemented during operation. B

			B Overall
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: No. There are no timelines provided regarding how long biodiversity and habitat benefits will take to mature and start delivering positive effects. Unclear as to whether enhancing local green corridors and SuDS areas will provide immediate benefits, or whether it will take longer. C
			E2: No timelines are provided regarding when benefits of core path and cycle route enhancements will occur. Presumably benefits will be realised immediately once improvements are made and 'Travel Packs' are issued. However, it is unclear when improvements to core paths will be made, thus making an assessment of when benefits will be realised difficult. C
			E3: No timelines are provided regarding when local job opportunities will be created through consultation with SDS and 'Joined up for Jobs'. Some detail about when jobs would be advertised and for how long the development would provide new job opportunities would help clarify benefits. C
			C Overall
Thoroughness of enhancement	С	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	E1: Not geographically clear where existing green corridors are and where/how these would be enhanced. The only detail provided is that they would be 'enhanced'. However, there is a detailed layout showing locations of proposed SuDS ponds and woodland planting. It would be good to see where specifically enhancement within these areas would occur. B
			E2: Existing core paths and cycle routes are displayed well within supporting figures (Figure 6.4) however it is unclear specifically where/how these routes will be 'enhanced'. C

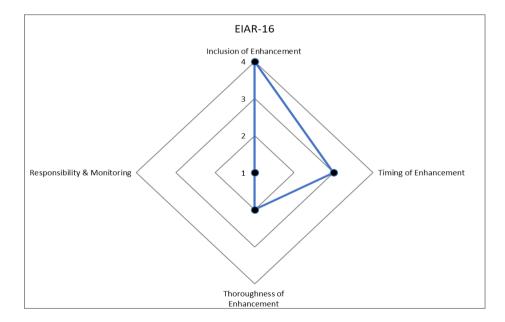
	E3: Clear that it applies to local area and community (Edinburgh Council area) in terms of providing employment opportunities. B
	B Overall
3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	E1: Yes. Clearly directed at multiple species and habitats. These include terrestrial habitats, amphibians, reptiles, invertebrates, and local flora.
	E2: Clearly directed toward future residents. However a discussion of benefits to other users beyond future residents would further clarify this as being a deliberate attempt at creating meaningful new benefits.  B
	E3: Clearly directed towards members of the local community. Greater detail on which industries/skills/local businesses would benefit most or are being considered most for local jobs would strengthen this enhancement. B
	B Overall
3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	E1: No detail is provided for any of the actions as to how the enhancement would be implemented and what actions are required to create additional positive benefits for local biodiversity/habitats. The most detail provided for any of the measures is that they will be 'enhanced'. Much more detail is required if this is to be considered a legitimate attempt at enhancement. D
	E2: No detail is provided at all for how core routes and cycle paths will be enhanced. The only detail provided is that they will be 'enhanced'. Much more detail is required if this is to be considered a legitimate attempt at enhancement. D

			E3: Very little detail is provided. There is some discussion of opportunities for liaising with SDS and 'Joined up for Jobs' but beyond that there is no more information as to any frameworks in place for ensuring local jobs are created. Much more robust, well thought out actions are needed in terms of how local jobs will be created/advertised and how local community members will benefit. C
Responsibility & accountability for enhancement	D	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement	E1: No detail is provided in terms of who is responsible for managing, funding, implementing any of the enhancement measures. It is unclear if the contractor will take responsibility for implementation and if the developer ultimately holds responsibility for funding and ensuring enhancements are realised. D
			E2: No detail is provided in terms of who is responsible for any of the enhancement measures. It is presumed the developer holds responsibility for managing and enhancing the core paths but there is no discussion throughout the ES. Likewise it is not clear who will actually construct/implement enhancements to these core paths and who is developing the 'Travel Packs'. D
			E3: No detail is provided regarding responsibility and accountability for ensuring the local community benefits from new jobs. There is no accountability in place if the developer were to choose to employ labour from other regions. Likewise it is unclear if it will be the responsibility of the principle contractor to create local jobs or whether the developer will retain full autonomy over that decision. D
		4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	E1: There is no mention of any monitoring or follow-up framework commitments anywhere within the ES or supporting documentation regarding enhancements to green corridors, landscaping, and SuDS ponds. There is no mechanism discussed for ensuring the enhancement is a) implemented, b) monitored, and c) maintained throughout the

	lifetime of the development to ensure benefits are actually realised and maintained. D
	E2: There is no mention of any monitoring or follow-up framework commitments anywhere within the ES or supporting documentation regarding enhancements to core paths and cycle routes. There is no mechanism discussed for ensuring the enhancement is a) implemented, b) monitored, and c) maintained throughout the lifetime of the development to ensure benefits are actually realised and maintained. D
	E3: There is no mention of any monitoring or follow-up framework commitments anywhere within the ES or supporting documentation regarding local job creation. There is no mechanism discussed for ensuring that local jobs are a) advertised and created, b) monitored, and c) maintained throughout the relevant phase of the development to ensure benefits are actually realised and maintained. D
	D Overall
Overall Grade	Whilst measures were outlined that seek to provide additional positive benefits to both the local biophysical and socioeconomic environments, overall they were poorly considered and not developed to any reasonable extent. Actions which seek to enhance local biodiversity and habitats were initially difficult to distinguish as being legitimate attempts at creating additional positive benefits from compensation mitigation. This is because these actions were considered as part of the mitigation commitments to produce an overall 'negligible' effect on the environment. For each of the enhancements, there was reasonable direction in terms of where and who the actions will benefit. However, there was virtually no detail as to how this would actually be achieved and what actions could be taken to ensure they are implemented. The same was true for any responsibility/monitoring commitments to the enhancements specifically. This is why overall the EIA was scored as deficient, because beyond identifying who/what the enhancement is for, there was very little detail provided.

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	4	Α
Timing of Enhancement	3	В
Thoroughness of Enhancement	2	С
Responsibility & Monitoring	1	D

<b>Category of Enhancement</b>	Occurrence
Biophysical	1
Social & Health	2
Economic	0



### 2.17. Full results of EIAR-17

Category	Development	EIA	Developer	EIA	Date	Project Description
	Туре	Title		Consultant	Published	
Power	Transmission	Gills Bay 132kv	Scottish Hydro Electric Transmission plc (SHE Transmission)	Not specified	08/2015	Application to construct a new double circuit 132kV overhead transmission line (OHL) connection between a new substation at Thurso and a proposed new substation at Phillips Mains, Gills Bay.  The development constitutes part of the reinforcement of Scotland's transmission network, as per the National Planning Framework 3.  The development would extend linearly approximately 23km with 13km of OHL supported by steel lattice towers and 3km of underground cabling.
						The development also includes associated works access tracks and construction compounds. The development passes through or is in close proximity to several designated sites including SPAs SACs and SSSIs.

Enhancement	Enhancement	Description	Evidence in document
Category	Measure		assessed
None	None	No consideration or development of any actions which seek to include additional direct or indirect positive outcomes.	N/A

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	D	1.1. Is there enhancement measures cited in any of the EIA documentation?	No.  The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Timing of enhancement	D	2.1. Is it clear which phase of the development the enhancement(s) be implemented?  Preconstruction, construction or operation?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Thoroughness of enhancement	D	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	The ES and supporting EIA documentation failed to include any consideration for

			additional positive outcomes as part of the development.		
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.		
Responsibility & accountability for enhancement	D	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.		
		4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.		
Overall Grade	have been o	No additional measures which seek to provide positive benefits to the surrounding environment, society, or local community have been considered as part of the EIA process. Whilst the ES does discuss enhancement has been considered as part of the design development, there are no examples of legitimate actions to create additional positive benefits.			

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	1	D
Timing of Enhancement	1	D
Thoroughness of Enhancement	1	D
Responsibility & Monitoring	1	D

<b>Category of Enhancement</b>	Occurrence
Biophysical	0
Social & Health	0
Economic	0

### 2.18. Full results of EIAR-18

Category	Development	EIA	Developer	EIA	Date	Project Description
	Туре	Title		Consultant	Published	
Renewable Energy	Onshore Wind	Airigh Wind Farm	Force 9 Energy/EDF Renewables	LUC	08/2017	Application by Force 9 Energy and EDF Renewables to construct and operate a wind farm approximately 8.4km south-west of Tarbert, Argyll and Bute. The proposal constitutes the construction and operation of 14 wind turbines, with associated crane hardstandings, underground electrical cabling, a control building and access tracks. The development would also require felling of 160ha of forestry to accommodate construction.  The total site would be approximately 890ha, although the development would occupy only a small percentage of this. The current land use is predominantly mixed mature forestry plantations.

Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
Biophysical	E1 – Implementation of a conservation management plan (CMP)	Development and implementation of a CMP to provide on-site ornithological benefits. An outline conservation management plan (OCMP) has been provided as part of the EIA, with the key ornithological species considered being redthroated divers, black grouse and golden eagle. The aim of the CMP is to maintain and enhance key habitat areas to provide benefits to these species. The habitat areas are defined as 'Woodland Management Areas' and 'Diver Management Areas'.	NTS para 1.72, p. V Para 9.169, p. 9-12 of chapter 9 Technical Appendix 9.4 'Outline Conservation Management Plan'

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	A	1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. The development and implementation of a conservation management plan (CMP) is proposed to enhance and favourably maintain habitats for a number of local ornithological species.
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	Measures are clearly introduced within the NTS and then discussed and developed within the relevant technical chapter (chapter 9 – Ornithology). An outline CMP is provided detailing the species and habitats aiming to be enhanced as well as an outline of specific aims and objectives. This measure is clearly an attempt at creating additional positive benefits and is thus deemed an enhancement. Perhaps one thing that could make it more definitively an enhancement would be consideration of wider-area benefits, as the CMP is in response to habitat loss as part of the development.
Timing of enhancement	A	2.1. Is it clear which phase of the development (e.g. preconstruction, construction or operation) the enhancement(s) will be implemented? Preconstruction, construction or operation?	E1: Yes. Clear that the full CMP will be finalised and agreed with Argyll and Bute council, in consultation with SNH prior to commencement of construction. The actions outlined within the CMP will then be implemented as part of the construction phase, with monitoring commitments extending to the operational development.
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: Yes. A management and monitoring timetable is provided within the OCMP, which details phased implementation of measures as well as when benefits will mature. A

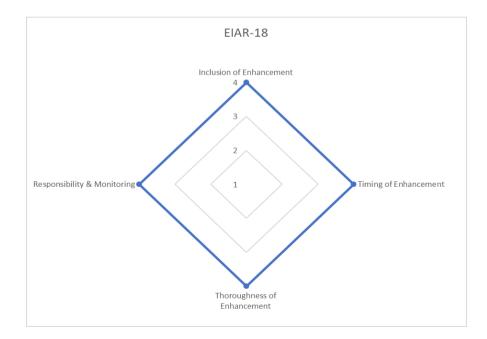
		3.1. Is it clear geographically where the	E1: Yes, extremely clear. Locations are discussed in depth within
Thoroughness of enhancement	A	enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond? Are there supporting maps/figures showing where enhancement will occur?	the OCMP. Additionally a supporting map is provided (Figure 9.15) which outlines the proposed areas for habitat management and enhancement measures. A
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people, aspect of local community or other beneficiary?	E1: Yes. The measures are specifically directed towards locally important ornithology and their habitats. This is sub-divided into two habitat areas of woodland management areas and diver management areas. Species within these habitats include red-throated divers, black grouse and golden eagle. A
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	E1: Yes. There is extensive detail provided within the OCMP. Firstly descriptions of the proposed management areas are provided. This is followed by the aims, objectives and management prescriptions for these areas as well as monitoring commitments. A
Responsibility & accountability for enhancement	A	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement?	E1: Yes. It is clear the developer holds responsibility for developing the CMP and managing, funding and monitoring the commitments outlined within it. Not totally explicit as to who holds responsibility for implementing the measure during construction phases. B
		4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	Yes. Within the OCMP monitoring commitments for the habitat management and enhancement objectives are developed and discussed well. Timelines are also provided as to management and monitoring commitments for each specific actions, extending to 25 years. A

#### Overall Grade

Overall the EIA process has been utilised extremely well to create additional positive benefits as part of the proposed development. The EIA recognises the opportunity to manage, improve, and enhance habitat areas within the site that are favoured by local ornithology. By providing an Outline Conservation Management Plan (OCMP) as a technical appendix the EIA process has clearly developed and considered enhancement to a significant degree. It is clear that the measures proposed constitute *deliberate* attempts at creating new benefits. They are also extremely well justified across all of the performance indicators, with detail on when they will be implemented, when benefits will occur, who/where benefits are directed and how this will be achieved. The benefits are also directed not only within the development footprint but to surrounding areas. Furthermore the EIA provides a robust framework for monitoring.

Performance Indicator	Grade (1-4)	Grade (D-A)	
Inclusion of Enhancement	4	Α	
Timing of Enhancement	4	Α	
Thoroughness of Enhancement	4	Α	
Responsibility & Monitoring	4	Α	

<b>Category of Enhancement</b>	Occurrence	
Biophysical	1	
Social & Health	0	
Economic	0	



### 2.19. Full results of EIAR-19

Category	Development Type	EIA Title	Developer	EIA Consultant	Date Published	Project Description
Renewable Energy	Hydro	Revised Coire Glas Pumped Storage	Coire Glas Hydro Pumped Storage Ltd (Wholly owned subsidiary of SSE)	ASH	03/2018	Application to construct and operate a pumped storage hydro power scheme between Loch Lochy (the lower reservoir) and a new reservoir created at Loch a' Choire Ghlais (the upper reservoir).  The development would represent a total
						installed capacity of 1500 megawatts (MW) with a storage capacity of up to 30 gigawatt hour (GWh).
						The main components of the development would be situated on Forestry Commission land. These would occupy two main areas of development: 1) Upper reservoir works, comprising upper reservoir, dam, surge shaft, upper control works
						and ventilation shafts. 2) Lower reservoir works, consisting of lower control works, emergency and access tunnels, cavern power station and an administration building.

Enhancement	Enhancement	Description	Evidence in
Category	Measure		document
			assessed
	E1 – Habitat	Habitat compensation and enhancement within lowland forested areas once	Para 11.11, p. 11-
	compensation and	construction has been completed. Directed towards areas affected by the development,	17 of chapter 11.
Biophysical	enhancement	with planting of native tree and berry-bearing species to increase the food for	
		passerines.	
Social & Health	E2 – Community	Consideration of a range of measures which could be deployed to maximise local	Para 20.4.53, p.
+	benefits	economic benefits. These include local information exchange events like 'Meet the	20-32 of chapter
Economic		Buyer' to advertise local procurement opportunities and encourage tendering by	20.
		regional and national firms.	

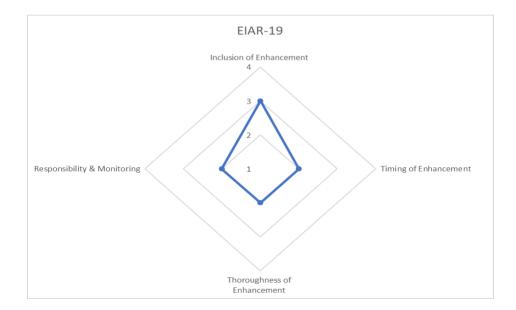
Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	В	1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. There is brief discussion about possible compensation and enhancement of habitats favoured by local ornithological species. There is also some discussion about SSE's comprehensive track record in providing community benefits and the opportunity to ensure local benefits as part of this development.  A
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	Measures are discussed in relevant technical chapters only (chapter 11 and chapter 20) and not summarised in NTS or a schedule of environmental commitments. Overall it is unclear whether these actions represent <i>genuine</i> attempts at creating new benefits. For example, habitat compensation and enhancement pertains only to areas of woodland affected by the development. Similarly, there is more discussion of SSE's track record in providing community benefits in previous developments than of how local benefits will be achieved within this proposed scheme.
Timing of enhancement	С	2.1. Is it clear which phase of the development (e.g. preconstruction, construction or operation) the enhancement(s) will be implemented? Preconstruction, construction or operation?	E1: Brief mention of compensation and enhancement occurring post-construction of the development. However, there is no elaboration to this. C  E2: Not explicit within the ES. It is presumed that given measures relate to promoting tendering and procurement opportunities it would occur prior to development. C
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: No. There is no discussion of any timelines regarding implementation or when benefits will mature and come into effect. D

			E2: No. There is no discussion of any timelines regarding when community engagement events to promote local procurement and
			tendering opportunities would occur, and for how long these benefits would extend. D
Thoroughness of		3.1. Is it clear geographically where the enhancement(s) is directed. For example, is	E1: There is mention of lowland forested areas but it is not clear exactly where this is referring to. No discussion as to where within the
enhancement	С	it within the development footprint or does it extend beyond?Are there supporting	development the compensation/enhancement planting would occur. C
		maps/figures showing where enhancement will occur?	E2: It is implicit that it extends to the local economy/society (Highland Council area). However it is unclear as to which businesses and aspects of the local economy will benefit and where exactly procurement/tendering is specifically directed. C
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people, aspect of local community or other beneficiary?	E1: Yes. Directed towards species of passerines (perching birds). Although this is fairly generic and more detail as to species and habitat types would provide further clarity on this measure as being a deliberate attempt at creating new benefits. C
		, and the second	E2: Yes. Directed toward local economy/society. As above, this is generally within the Highland Council area, although more detail could be provided to clarify that the developer is making a concerted effort at benefitting local communities. C
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	E1: No. There is no description in any form as to how compensatory planting of native species would be carried out/implemented. Unclear as to which species would be used, and what sort of planting regime would be taken. There is very little detail provided overall. A statement of compensatory planting using native tree species to benefit passerine birds is the only detail given. D
			E2: There is some detail provided although nothing is particularly material in nature. The ES discusses the opportunity to hold community engagement events such as 'Meet the Buyer', but there is little detail provided beyond stating what benefits could be achieved, with minimal discussion of how this would be attained. C

Responsibility & accountability for enhancement	C	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement?  4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	E1: No. It is unclear as to who holds responsibility for any aspect of the compensatory planting/enhancements. There is no discussion of who would be responsible for funding (presumably the developer), implementing and managing the enhancement. If it is to occur post-construction would it still fall to the contractor to implement the proposed planting? No mention of consultations to develop the enhancement. D  E2: It is clear the developer retains full responsibility for funding local community benefits and ensuring procurement and tendering opportunities are advertised locally. B  E1: No monitoring commitments discussed regarding compensation/enhancement measures for ornithological habitats. Monitoring is mentioned for protected bird species prior to, and during construction and operation of the development but not for enhancement of habitats and benefits to passerines. D  E2: The ES states "In order to review economic impacts predicted in this Section it is recommended that SSE monitor the level of local and national impact associated with all activities during the development and operation of The Proposed Development." (Chapter 20, para 20.4.53). Beyond this there is no elaboration as to what form this monitoring would take and for how long it would extend. C
Overall Grade	opportunit considered creating ad woodland I developme be impleme	ies to enhance bird habitats and aspects of local or developed to any reasonable extent. It was ditional positive benefits or whether they resentabitat. This was supported by the fact that the ent and when benefits might be delivered as we	easures to any significant degree. Whilst there was some discussion of all socioeconomics such as procurement and tendering, these were not unclear whether these actions constituted a deliberate attempt at mbled a response to negative impacts of the development such as loss of re was no real discussion of when enhancement would occur within the II as a lack of information regarding where and how the measures would re was virtually no discussion as to who would be responsible for the

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	3	В
Timing of Enhancement	2	С
Thoroughness of Enhancement	2	С
Responsibility & Monitoring	2	С

Category of Enhancement	Occurrence
Biophysical	1
Social & Health	1
Economic	1



#### 2.20. Full results of EIAR-20

Category	Development Type	EIA Title	Developer	EIA Consultant	Date Published	Project Description
Transport	1	A720 Sheriffhall Roundabout Improvement	Transport Scotland	AECOM	12/2019	An EIA was carried out as part of the proposed upgrade to the existing A720 Sheriffhall roundabout, south of Edinburgh, along the existing A720 city bypass corridor.  The scheme aims to alleviate pervasive traffic congestion issues experienced at this bottleneck location. An outline 'stage 3' design has been agreed after iterative design developments as part of the DMRB assessment stages. This comprises enlarging the roundabout to become an eight-arm roundabout, consisting of a three-laned carriageway. Additionally, a flyover road will carry the A720 over the new roundabout.

Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
Biophysical	E1 - Floristic, habitat and biodiversity enhancement	Measures to increase the floristic, habitat and biodiversity potential of the proposed scheme. These include compensatory planting to provide a net-gain, use of specific and native planting regimes to provide floristic and biodiversity opportunities, design of SuDS to retain water for BNG purposes, provision of bird boxes, enhance riparian habitats within realigned dean burn. These actions constitute flower-rich habitat creation, pond and wetland creation, ecological improvement of watercourses, and wildlife corridors.	Mitigation items NC-4, NC-5, NC- 7, NC-14, NC-16, RDWE-3, Table 20-1, pp. 20-5 – 20-9 of chapter 20.
	E2 - Enhanced provision of NMU routes	Provision of enhanced, segregated NMU routes through and around Sheriffhall. This includes crossing below the roundabout and the A720 Edinburgh City Bypass as well as segregated NMU routes along the A7 South, A7 North, A6106 South and A6106 North.	Mitigation item AT-6, table 14- 20, p. 14-26 of chapter 14.

Performance	Indicator	Questions in analytical framework	Answer & Grade
Indicator	Grade		
Inclusion of enhancement	A	1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. Biophysical enhancements are by far the most prevalent and include floristic, habitat and BNG improvement measures. Social and health measures in the form of enhanced NMU routes throughout and around Sheriffhall are also included.
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	Measures to enhance various aspects as part of the development are clearly developed throughout the ES. They are discussed within relevant technical chapters (chapter 9 and chapter 14) as well as summarised in the schedule of commitments (chapter 20). The actions are clearly attempts at creating additional positive benefits, although some may resemble more compensation than others. A
Timing of enhancement  A		development the enhancement(s) be implemented?	E1: Yes. Actions cover all phases of development. Some are to be implemented during the design and construction phases such as the design of SuDS basins, planting of native species throughout scheme, hydromorphological changes to Dean Burn, and construction of bird boxes. Some of these measures also extend into operation, such as planting regimes and bird boxes. A  E2: Yes. Improving NMU routes throughout and around the scheme relates to the operational phase of development in terms of implementation. A
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: Yes. The replacement of habitats on a like-for like or enhanced basis, with some being more diverse than the baseline, will potentially provide enhancements in the short term and post construction. The same is true for retention of water in SuDS ponds, with water being retained until at least the end of July to maximise breeding opportunities and provide biodiversity benefits. A

			E2: Not made explicit when beneficial effects for NMU will be fully realised. Although it is implicit within the information provided in the ES that it will be during the operation of the scheme, and benefits will be immediate. B
Thoroughness of enhancement	А	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	E1: Yes. Very clear geographically. Each action relates to a specific location within the proposed scheme. For example, retention of water in SuDS to create new aquatic habitats and planting of native hedgerows and flower-rich meadow mixes around their verges clearly relates to the four SuDS ponds being created. Hydromorphological enhancements apply to the Dean Burn, and Bird boxes are to be situated around Summerhall. Supporting map also highlights locations of planting and SuDS ponds (Figure 8.8). A
			throughout and around the development will be. Locations include crossings below the roundabout and City Bypass, as well as along A7 and A6106 roads. A
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	E1: Yes. Directed at multiple aspects of biodiversity gain and habitat creation. For example, creation of SuDS ponds have been designed to maximise biodiversity by providing habitat for aquatic plants, amphibians and invertebrates. Planting of native hedgerow along SuDS verges is aimed at benefiting nesting birds, amphibians and reptiles, whilst floristic planting is directed toward local pollinators such as butterflies. A
			E2: Yes. Directed at non-motorised users, including walkers, cyclists, and equestrians. A
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the	E1: Reasonable descriptions of how measures will provide benefits and how they might be carried out. Good description of design of SuDS and proposed planting regimes to maximise biodiversity. This includes a detailed list of species to be used to provide the floristic and habitat
		enhancement?	benefits. More detail could be provided for other actions such as

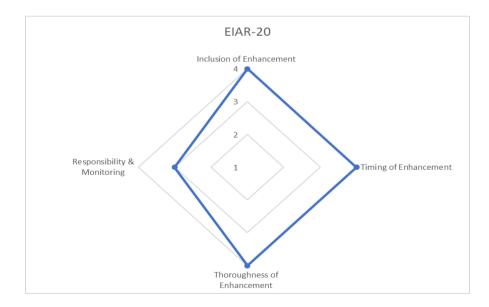
			provision of sparrow boxes (only 4 to be provided, if one is lost this constitutes a 20% loss). B
			E2: Reasonable description of where NMU routes will be retained, realigned or created within and around the scheme. Perhaps a bit more detail could be provided in terms of how this might be achieved and by who. B
Responsibility & accountability for enhancement	В	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement	E1: Implicit that Transport Scotland holds responsibility for funding and managing the actions overall. It is also reasonably clear that the principal contractor will be responsible for appointing an ECoW to preside over all mitigation measures, including those which seek to provide biodiversity enhancement. B
			E2: Implicit that Transport Scotland holds responsibility for designing, funding and managing improvements to NMU routes. Also implicit that the principal contractor will be responsible for delivering the scheme designs which improve NMU routes, although perhaps more detail could be provided. B
		4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	E1: Yes. There is good discussion of monitoring commitments following implementation of the enhancement measures. Responsibility for ensuring that all mitigation, including measures which seek to enhance biodiversity, are implemented properly, lie with the appointed ECoW. An ecologist will also be appointed by Transport Scotland to carry out compliance checks during construction as well as post-construction monitoring. This monitoring covers enhancement measures discussed such as the effectiveness of SuDS ponds and planting regimes. A
			E2: No monitoring commitments discussed in terms of benefits to NMU users in the short, medium or long term. May not be applicable but would still help to show commitment to creating new benefits if an assessment of NMU journeys was carried out post-construction to assert whether improvements have actually been realised. B

#### Overall Grade

Overall a good attempt has been made at creating additional positive benefits as part of this development. These pertain to both the biophysical environment as well as local social and health aspects. By designing components of the scheme, such as SuDS basins to provide additional positive biodiversity and habitat benefits, the ES clearly takes steps to create new benefits beyond just mitigation. This is also true for proposed compensatory planting regimes, where new native and species rich planting will replace previously biodiversity poor areas, providing an overall net-gain. Embedded designs of enhanced NMU routes is also a clear and deliberate attempt at creating new benefits early on in the project, rather than enhancement being used as an afterthought. These notions are supported by the fact that there was a good development and consideration of each action in terms of when they will be implemented, where/who they are directed towards, and how they might be implemented and achieved. Furthermore, there was a good discussion of who holds responsibility for implementing, overseeing, and monitoring the actions post-construction. Monitoring and follow-up was particularly well established for ecological enhancements.

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	4	Α
Timing of Enhancement	4	Α
Thoroughness of Enhancement	4	Α
Responsibility & Monitoring	3	В

<b>Category of Enhancement</b>	Occurrence
Biophysical	1
Social & Health	1
Economic	0



#### 2.21. Full results of EIAR-21

Category	Development Type	EIA Title	Developer	EIA Consultant	Date Published	Project Description
Power	Transmission	Ballan to Stornoway 132kV Overhead Line Replacement	Scottish Hydro Electric Transmission plc (SHE Transmission)	Wardell Armstrong	01/2019	Proposal to replace the existing 132kV overhead line (OHL) from Ballan to Stornoway as part of the wider grid reinforcements on the Isle of Lewis.
						The development comprises construction of 23.5km of new OHL on wood poles, installation of underground cabling, development of a switching station, dismantling of the existing OHL, and formation of temporary access tracks.
						The development crosses into the Lewis Peatlands Special Protection Area (SPA) in places, but runs through a mix of predominantly moorland scattered with lochs, rural villages, crofts, and agricultural land.

Enhancement	Enhancement	Description	Evidence in document
Category	Measure		assessed
None	None	No consideration or development of any actions which seek to include additional direct or indirect positive outcomes.	N/A

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	D	1.1. Is there enhancement measures cited in any of the EIA documentation?	No.  The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Timing of enhancement	D	2.1. Is it clear which phase of the development the enhancement(s) be implemented?  Preconstruction, construction or operation?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
Thoroughness of enhancement	D	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	The ES and supporting EIA documentation failed to include any consideration for additional positive outcomes as part of the development.

		3.3. Is there a description of how the enhancement measure	The ES and supporting EIA documentation		
		will be implemented or carried out? What actions are being	failed to include any consideration for		
		planned to try and achieve the enhancement?	additional positive outcomes as part of the		
			development.		
Responsibility &		4.1. Is it clear who is responsible for implementing, managing,	The ES and supporting EIA documentation		
accountability for		paying for and monitoring the enhancement measure? Is there	failed to include any consideration for		
enhancement	D	mention of any partnerships or consultees involved with	additional positive outcomes as part of the		
		enhancement	development.		
		4.2. Is there detail of follow-up and monitoring of the	The ES and supporting EIA documentation		
		enhancement post-implementation? If so, how long does this	failed to include any consideration for		
		extend?	additional positive outcomes as part of the		
			development.		
Overall Grade	No additional measures which seek to provide positive benefits to the surrounding environment, society, or local of				
	have been considered as part of the EIA process. Whilst the ES mentions the opportunity to include enhancement as par				
	post-development land reinstatement, these actions are not developed or discussed further in the ES and are therefore g				
	as 'Not Pres	ent'.			

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	1	D
Timing of Enhancement	1	D
Thoroughness of Enhancement	1	D
Responsibility & Monitoring	1	D

<b>Category of Enhancement</b>	Occurrence
Biophysical	0
Social & Health	0
Economic	0

#### 2.22. Full results of EIAR-22

Category	Development Type	EIA Title	Developer	EIA Consultant	Date Published	Project Description
Transport	Road	A9 Dualling: Tomatin to Moy	Transport Scotland	Atkins + Mouchel (now part of WSP)	03/2018	A phase of the extensive A9 Dualling Programme consisting of improvements between Tomatin and Moy. The Scheme will comprise dualling approximately 9.6km of the existing A9. This will include widening/upgrades to the existing carriageway as well as the provision of one new grade separated junction and four new left-in/left-out junctions. The scheme also incorporates road drainage considerations, crossings over waterways, crossings over the Highland Main Line railway, and provisions for pedestrians and cyclists.

Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
	Enhance and restore watercourse and riparian habitats	Where rivers are required to be realigned/diverted either permanently or temporarily, sustainable features are to be incorporated which help to maintain flow and enhance biodiversity/habitats. These may include the use of woody materials, gravel bars, vegetation and riffle pools. The design may also incorporate resting pools/spawning habitats for fish.	Mitigation Item P12-W21. Table 21.5, p.21- 36 p.11-90 of chapter 11
Biophysical			Mitigation Item P-12-W22 Table 21.5, p.21- 37 p.11-91 of chapter 11
ыорпузісаі			Mitigation Item P11-E23. Table 21.6, p.21- 48 p.12-45 of chapter 12
	Habitat enhancement for water voles	SuDS ponds and drainage channels will be designed sensitively to provide habitats for water voles.	Mitigation item P12-E42 Table 21.6, p. 21- 54 of chapter 21 p.12-47 of chapter 12

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of enhancement	В	1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. The ES and its supporting documentation discusses attempts at maintaining/enhancing aspects of the biophysical environment as part of mitigation commitments. These are outlined in the relevant technical chapters such as chapters 11 and 12. Furthermore, each mitigation item which seeks to add enhancement to a specific aspect of the biophysical environment is outlined in chapter 21 'Schedule of Environmental Commitments'.
		1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	Whilst measures are referred to as 'enhancing' a particular aspect of the biophysical environment, there is difficulty distinguishing these as deliberate attempts at introducing additional positive benefits. All of the actions are in response to a negative impact and so may be considered more offsetting or compensating rather than genuine enhancement. This is particularly true for 'enhancement of water vole habitats' given they are likely to experience habitat loss, loss of resting sites, and mortality. However, despite the actions resembling more compensatory measures, thought has been given as to how they may provide benefits, and thus has been considered enhancement as part of this assessment. There were other measures within the ES labelled as attempts to 'enhance' aspects of the environment, but were deemed to be compensation measures instead of deliberate attempts at creating new benefits. Thus these measures are not included in this assessment.
Timing of enhancement	С	2.1. Is it clear which phase of the development the enhancement(s) be implemented?  Preconstruction, construction or operation?	E1: Yes. Clear that attempts to introduce habitat and biodiversity enhancement measures will be implemented in both construction and operation, with specific reference made to the Contractor implementing specific actions.

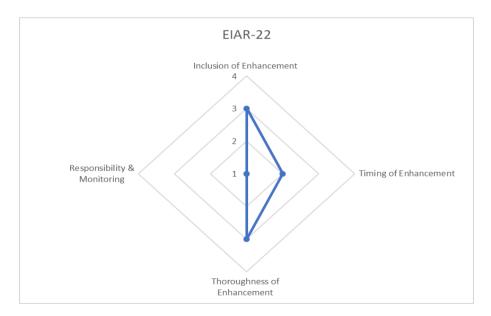
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E2: No. Unclear as to which phase of development the design of SuDS ponds to benefit water voles will be implemented. More detail is required specifically for the enhancement measure. C  B Overall  E1: Not made explicit within the ES or supporting documentation when benefits to in-channel and riparian habitats will be realised. Presumably given that the measures will be constructed as part of construction/operation phases the changes to watercourses will be immediate. However, there is no discussion of how these interventions might mature over time and when benefits to aquatic life will occur. E.g. when will fish species benefit from resting pools? C  E2: No. Not clear as to when benefits will come into effect. The ES fails to state both when they will be implemented and when benefits will be realised by water voles. For example, will it take time for benefits to mature? Or will they be immediate? C
Thoroughness of enhancement	В	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	E1: It is clear that attempts to provide habitat/biodiversity enhancement applies only to watercourses which will be negatively affected through realignment/diversion. However, it is not specified which watercourses or where in the scheme, only that measures will occur 'Throughout the Proposed Scheme'. B  E2: Yes. It is very clear where the water vole enhancement areas of SuDS ponds will be through the use of supporting maps (Figure 13.8). The maps outline the exact areas to be designed sympathetically for water voles. A

		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	E1: The enhancement is directed toward watercourses which are to be realigned or diverted. In terms of which habitats would be created and which aquatic species would benefit from the proposed measures it is not clear. Reference is made to resting spots/spawning locations for salmonids but no more detail is given as to which aspects of biodiversity are aimed at being improved. B  E2: Yes. Directed towards water voles that have been sighted within the proposed development site. However, more detail is required in terms of which sorts of habitats will be created to benefit water voles – which species to be planted, how will SuDS be designed? C
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	E1: Yes. There is a detailed discussion of measures to be carried out by the Contractor in terms of river culverts, realignments, and bank/bed protection. These include creating a fish passage/'buffer zone' to enhance the watercourse and allow fish to rest while moving upstream. Further steps include using various materials/methods to enhance and restore habitats. A  E2: No detail is provided at all as to how the action will be implemented and by who. There is no discussion of species to be used, timing of the measure or when benefits will be realised. The only information provided is that SuDS will be designed sensitively to provide habitat for
			water vole. D
Responsibility & accountability for enhancement	D	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement	E1: It is clear that responsibility for implementing the watercourse modifications in line with the ES is the responsibility of the Contractor. It is stated that some of these measures should be coordinated in consultation with aquatic ecologists, geomorphologists, and landscape architects. It is presumed Transport Scotland is responsible for funding

	4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does the extend?	the enhancement but not made explicit. There is no detail of who holds responsibility for ensuring enhancement measures are realised once implemented within the Scheme. B  E2: No discussion of responsibility for design of SuDS to provide habitat enhancement for water voles. Unclear if it is the responsibility of the contractor, an ECoW, or ultimately Transport Scotland. C  C Overall  E1: No mention of follow-up or monitoring of alterations to watercourses and measures which seek to provide habitat/biodiversity improvements. D  E2: No mention in the ES or supporting documentation as to any plans for monitoring or follow-up specifically for the actions which seek to provide enhancement. Whilst ecological monitoring is discussed throughout the ES it pertains only to mitigation actions and not for any of the enhancement measures. D
		D Overall
Overall Grade	or developed to any significant degree. It was particular new benefits, compared to compensating for advers habitats at SuDS ponds, which given that water voles compensation. This was supported by the fact that no stating what the enhancement aims to achieve. There when benefits would come into effect. Whilst there toward, there was virtually no detail on how actions	measures which seek to provide additional benefits, they were not considered alarly difficult distinguishing these measures as <i>deliberate</i> attempts at creating impacts. This was particularly true for the creation of new water vole may lose habitat areas due to the development, resembles more of a either of the enhancement measures were really developed beyond just in was a little discussion as to when the measures would be implemented and was a reasonable discussion as to where and who the enhancement is directed would be achieved, particularly for E2. Finally, there was extremely poor the and no discussion of any monitoring/follow-up commitments for either of

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	3	В
Timing of Enhancement	2	С
Thoroughness of Enhancement	3	В
Responsibility & Monitoring	1	D

<b>Category of Enhancement</b>	Occurrence
Biophysical	2
Social & Health	0
Economic	0



#### 2.23. Full results of EIAR-23

Category	Development	EIA Title	Developer	EIA	Date	Project Description
	Туре			Consultant	Published	
General Development	Science, Technology and Innovation	Space Hub Sutherland	Highlands and Islands Enterprise (HIE)	Ramboll	02/2020	Application to construct and operate a new space hub facility at A' Mhòine, Sutherland. The development would comprise a launch pad complex, Launch Operations Control Centre, Launch Site Integration Facility, access roads, fencing and services.  The site boundary extends for 307 hectares
						(ha) and would be controlled by a Launch Operator to launch small satellites into orbit. The site boundary overlaps several designated sites, including one SAC, one SPA, one Ramsar, and two SSSIs.

Enhancement	<b>Enhancement Measure</b>	Description	Evidence in
Category			document
			assessed
		Development of an outline Construction Environmental Management Plan (CEMP),	Para 2.4.11, p.
		with a Habitat Management Plan included detailing opportunities for ecological	2-16 of chapter
		enhancements. An Outline Habitat Management Plan (OHMP) has been included as	2.
		part of the EIA application. Within the OHMP a series of aims for ecological	Technical
Biophysical	E1: Biodiversity and	enhancement have been identified including: 1. Increase the quality and extent of	Appendix 2.1
	habitat enhancement	blanket bog habitats within the site boundary; 2. Increase the quality and extent of	'Outline CEMP',
		habitat for breeding raptors; 3. Maintain riparian corridors. Measures included as part	throughout
		of the OHMP to achieve these aims include: 1. Restoring approximately 67.5ha of	Technical
		blanket bog area; 2. Maintenance of current stocking densities to prevent overgrazing;	Appendix 5.8
		3. Cessation of muirburn activities to maintain areas of mature heather; 4.	'Outline HMP',
		Construction designs to include open bottomed culverts.	throughout.

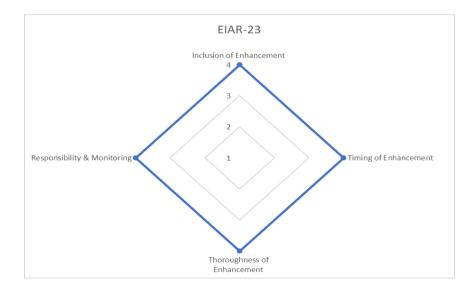
Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of		1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. Enhancement is included as part of commitments outlined within the CEMP. Specifically, an Outline Habitat Management Plan (OHMP) has been developed to provide ecological and habitat enhancements.
enhancement	A	1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	Enhancement has been clearly developed and considered as part of the EIA process. It is discussed throughout the main EIA report, with specific aims, management measures and monitoring commitments discussed in the CEMP and OHMP. This points to a clear and concerted effort at creating new additional benefits as part of the development, which has been developed and considered carefully.
Timing of enhancement	A	2.1. Is it clear which phase of the development (e.g. preconstruction, construction or operation) the enhancement(s) will be implemented? Preconstruction, construction or operation?	E1: Yes. It is made explicitly clear that enhancement measures as part of the HMP would be prepared prior to commencement of construction and implemented during the construction phase as part of the CEMP. A
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: Not explicit timelines in terms of when benefits will be realised but a detailed timetable of management and monitoring commitments for each action is provided. Thus the benefits are expected to be realised during the operational phase. B
Thoroughness of enhancement	A	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	E1: Yes. Extremely clear geographically. The areas designated for habitat restoration and enhancement have been outlined clearly using supporting maps and figures (Figure 2, OHMP). A

		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	E1: Yes. The measures are directed at multiple dimensions of ecological/habitat enhancement. There are three primary aims of the HMP of 1. Peatland restoration 2. Habitat enhancement for breeding raptors 3. Maintain riparian corridors for otter and water vole. Thus each aim has a supporting set of actions specifically directed to a habitat area/species. A
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	E1: Yes. There is a comprehensive and extensive discussion of the measures proposed to achieve the envisaged enhancement within the OHMP. These include detailed descriptions of blanket bog restoration measures such as peat cutting reinstatement and use of peat damming. The OHMP also discusses measures to manage stocking densities (sheep and deer) to maintain areas of mature heather for breeding raptors. Finally, by using open bottomed culverts and dry passages riparian corridors will be maintained and enhanced. A
Responsibility & accountability for enhancement	A	4.1. Is it clear who is responsible for implementing, managing, paying for and monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement	E1: Yes. It is explicit that HIE (the developer) holds responsibility for managing and funding the measures detailed within the CEMP and OHMP. The CEMP will be fully developed by the principal contractor with the HMP developed by relevant technical specialists in consultation with SNH, SEPA and the Highland Council. Further to this, an ECoW will be appointed for the entirety of the construction phase and holds responsibility for overseeing compliance to the measures outlined within the CEMP. A
		4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	E1: Yes. There is a comprehensive and well developed monitoring framework discussed within the CEMP and OHMP. These include the monitoring commitments of the ECoW throughout the construction phase of the development. Within the OHMP there are also detailed monitoring measures and targets for each specific enhancement action (Table 2, OHMP). As well as extremely detailed monitoring

	commitments, it is also stated that a Habitat Management Committee should meet at the end of each monitoring year to review the results of that years monitoring and amendments made where appropriate. timetable of monitoring commitments is provided, extending for up to 5 years. A
Overall Grade	Excellent provision was made for the enhancement of positive impacts, and it was expressed clearly and well throughout the EIA report as well as supporting documentation. The development of an outline habitat management plan was used as an excellent medium to convey enhancement aims of the development. Each action proposed within it was very clearly an attempt at creating an overall net positive benefit. The measures were very clearly discussed in terms of when they would be implemented. They were also well established in terms of what actions will be taken to ensure their implementation, who they directed to and where in the scheme they will benefit. Furthermore, excellent provision was made for monitoring and follow-up of the measures within the OHMP. A simple, comprehensive monitoring framework was outlined with specific monitoring targets for each of the actions within the plan.

Performance Indicator	Grade (1- 4)	Grade (D- A)
Inclusion of Enhancement	4	Α
Timing of Enhancement	4	Α
Thoroughness of Enhancement	4	Α
Responsibility & Monitoring	4	Α

<b>Category of Enhancement</b>	Occurrence
Biophysical	1
Social & Health	0
Economic	0



#### 2.24. Full results of EIAR-24

Category	Development Type	EIA Title	Developer	EIA Consultant	Date Published	Project Description
General Development	Mixed Use	Land at Former IBM, Greenock	Advance Construction	Barton Wilmore	02/2020	Application for planning permission in principle (PPP) to construct and operate a primarily residential, mixed-use development. The site is located on former IBM land in Spango Valley, Greenock, Inverclyde council area.  The development comprises residential properties of up to 450 dwellings, industrial/business use (3.4ha of employment floorspace), retail and leisure use, and park and ride with associated infrastructure, landscaping and drainage.

Enhancement Category	Enhancement Measure	Description	Evidence in document assessed
Biophysical	E1 Biodiversity net gain/ecological enhancement measures	Development of a supplementary 'Ecological Appraisal' which outlines potential habitat enhancement measures. Included as a technical appendix is a 'Preliminary Ecological Appraisal' which details these measures in depth. Specific measures include:  • Naturalisation of the Hole of Spango Burn and riparian planting to increase ecological value.  • Native species planting which encourages invertebrates and ultimately bats.  • Possible installation of bat boxes on trees and buildings.  • Enhancement of grassland to create flower meadows for pollinators.  • Installation of SuDS system.  • Use of bird boxes and bee bricks to provide nesting resources.  • Installation of amphibian ladders and tunnels to facilitate movement of species throughout the scheme.	NTS para 9.5, p.13  Para 9.151 – 9.168, of Chapter 9.  Technical Appendix 9.1. 'Preliminary Ecological Appraisal' Section 4.4. pp. 25-26  Technical Appendices 9.2, 9.3, 9.4.

Performance Indicator	Indicator Grade	Questions in analytical framework	Answer & Grade
Inclusion of	- Ciuuc	1.1. Is there enhancement measures cited in any of the EIA documentation?	Yes. Enhancement has clearly been developed as part of the EIA process. It pertains predominantly to BNG and ecological enhancement actions. A
enhancement	A	1.2. How clear is it within the EIA that enhancement has been considered and developed? How clear is it a legitimate attempt at creating new benefits?	Very clear. Enhancement is first outlined in the NTS. It is then developed within the relevant technical chapter (Chapter 9 – Biodiversity). Finally, a separate technical appendix (Appendix 9.1.) details the enhancement measures in greater detail. It is clear these measures are designed to provide an overall net-gain for biodiversity, and as a result are very clearly an attempt at creating additional positive benefits. A
Timing of enhancement	С	2.1. Is it clear which phase of the development (e.g. preconstruction, construction or operation) the enhancement(s) will be implemented? Preconstruction, construction or operation?	E1: Not entirely explicit when measures will be implemented. Presumed to vary by each measure although majority will presumably be implemented during the construction phase. Greater detail on when exactly each measure is planned to be implemented would help demonstrate commitment to the enhancement. C
		2.2. Are timelines (e.g. short, medium, or long term) provided regarding when benefits of the enhancement will be achieved?	E1: No. Timelines are not explicitly provided for when benefits would be realised. As above will likely vary for each specific action although more detail on when benefits would mature and come into effect would support the development of their enhancement commitments. C
Thoroughness of enhancement	A	3.1. Is it clear geographically where the enhancement(s) is directed. For example, is it within the development footprint or does it extend beyond?	E1: There is some description of geographic relevance for enhancement measures, though not for all of them. For example, daylighting of Spango Burn clearly applies to a specific geographic location, and is illustrated on supporting figures. However, other measures such as native species planting, and installation of SuDS systems are more

			general in nature and not specific to a certain area within the site.  Perhaps some of the measures could be further developed. B
		3.2. Is the enhancement measure(s) directed towards a certain species of flora/fauna, habitat, area of land, group of people or aspect of local community?	E1: Yes. The measures are directed towards different aspects of local biodiversity/ecology. Spango burn daylighting is aimed towards riparian habitats and species. Native hedgerow and species planting is aimed at increasing invertebrate habitats, which would ultimately act as a food source for bats and bird species. Installation of nesting boxes is also directed towards bats and bird species. Wildflower and meadow planting is directed toward pollinators and other invertebrates. A
		3.3. Is there a description of how the enhancement measure will be implemented or carried out? What actions are being planned to try and achieve the enhancement?	E1: Overall yes. Some measures are more detailed than others but generally there is a good description of how enhancement measures might be implemented and carried out. For example, technical appendix 7.1. provides a detailed account of how the Spango burn will be naturalised/daylighted. There is also reasonable descriptions for other measures such as the design and planting proposals for SuDS ponds, compensatory planting, and installation of bat and bird boxes. A
Responsibility & accountability for		4.1. Is it clear who is responsible for implementing, managing, paying for and	E1: No. Not entirely clear who holds overall responsibility for the measures. Given there are a number of measures outlined, it is unclear
enhancement	С	monitoring the enhancement measure? Is there mention of any partnerships or consultees involved with enhancement	whether the developer holds ultimate responsibility for each of these. Unclear if the contractor is responsible for delivering the enhancement measures during construction or whether a third party such as an ECoW or ecological consultant will oversee the implementation of the measures. C
		4.2. Is there detail of follow-up and monitoring of the enhancement post-implementation? If so, how long does this extend?	E1: Some detail about monitoring of mitigation measures but no framework specific to enhancement commitments. Again, it is unclear whether the actions will be transcribed into a CEMP for the contractor to carry out during construction. No mention of who holds responsibility for monitoring and overseeing the measures both during construction and operation of the scheme. No detail of any committed evaluation of the measures over time to assess whether they are having the intended effects. C

#### Overall Grade

Overall a good attempt was made at including and developing biodiversity net gain measures as part of the development. However, the measures did lack sufficient detail to score an overall grade of 'comprehensive'. They were clearly designed as attempts to create additional positive benefits for ecology rather than to compensate or mitigate for adverse impacts. They were also well directed towards specific aspects of local biodiversity, and there was some good detail as to how the measures were developed and might be carried out/implemented. However, there was little detail on where the measures were directed, when they would be implemented, and ultimately who was responsible for their implementation, management and monitoring over time. Monitoring was poorly accounted for, with it being unclear if there were any commitments to monitor and evaluate the measures during construction and then operation of the scheme.

Performance Indicator	Grade (1-4)	Grade (D-A)
Inclusion of Enhancement	4	Α
Timing of Enhancement	2	С
Thoroughness of Enhancement	4	Α
Responsibility & Monitoring	2	С

Category of Enhancement	Occurrence
Biophysical	1
Social & Health	0
Economic	0

