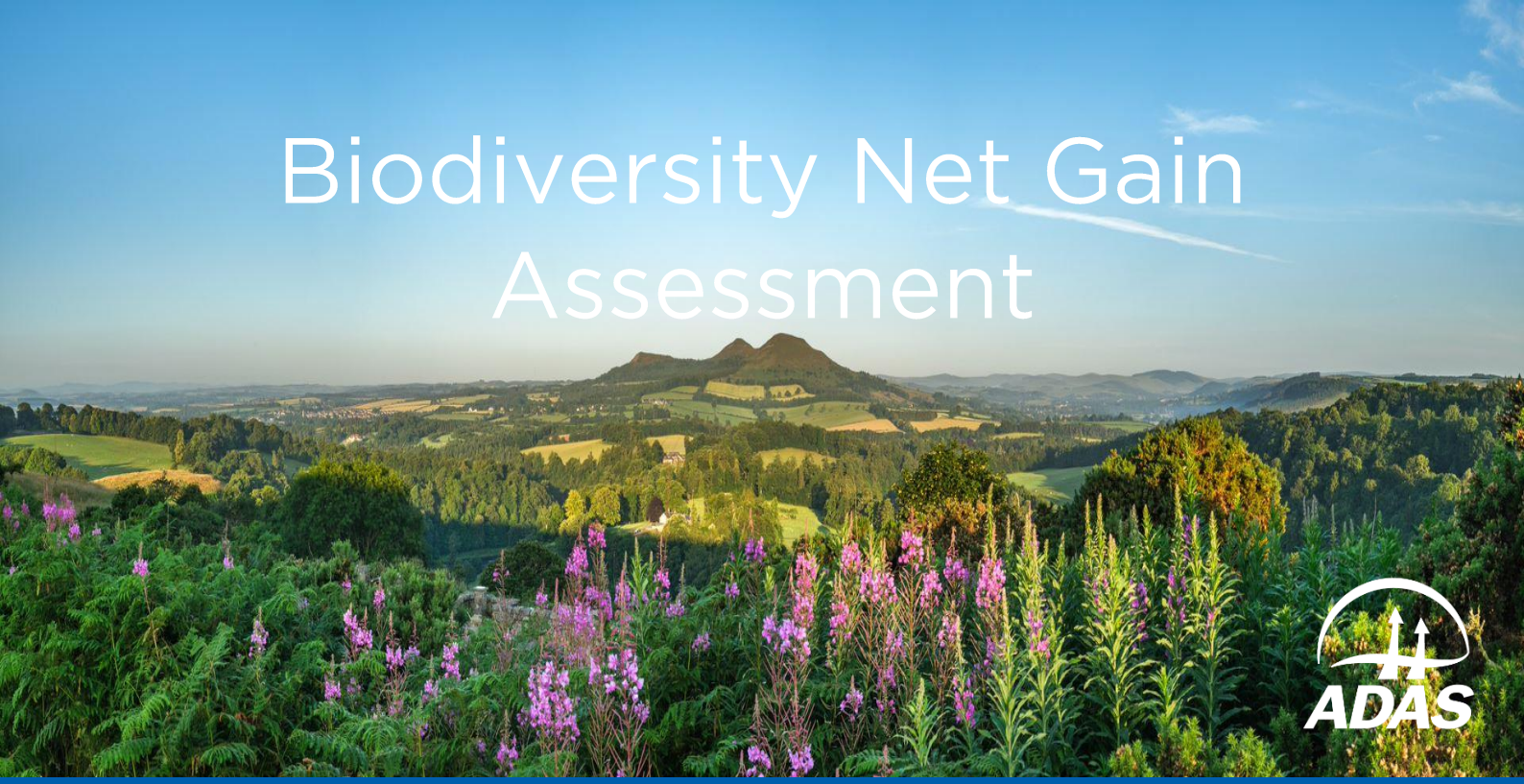


Biodiversity Net Gain Assessment

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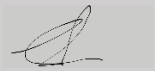
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Quality Assurance

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The information which ADAS has prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK ADAS Ltd.

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Summary

The proposed development essentially comprises the temporary erection of a single well pad and the drilling of an appraisal wellsite at Coastal Road, Burniston, North Yorkshire, YO13 0DB. The site currently comprises Modified Grassland.

As the works are temporary, all existing habitats will be fully re-instated following completion and are expected to return to their pre-works condition within two years. Therefore, no biodiversity units will be lost to facilitate the proposed works.

Post-construction, 0.38 habitat units will be gained on site through proposals which include the enhancement of 0.05-ha of existing Modified Grassland to Other Neutral Grassland with a target condition of 'good'.

Under the current scheme design, post-development habitats and their associated target conditions will achieve a total net change of 0.28 area habitat units, which represents an 11.05 % net gain.

A management and monitoring plan should be prepared for the site prior to the start of construction, to detail how the recommended habitat protection and enhancement measures will be implemented, and to detail long-term monitoring requirements in order to secure the targeted net gains.

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1 Introduction

1.1 Background and Objectives

ADAS were commissioned by Europa Oil & Gas (Holdings) to undertake a biodiversity net gain assessment in support of a planning application for the construction of a single well pad and the drilling of an appraisal wellsite at Coastal Road, Burniston, North Yorkshire, England, YO13 0DB (Grid reference: TA 02051 92792), hereafter referred to as the 'site'.

Due to the nature of the proposed development, it is understood that a biodiversity net gain assessment of the proposed works is required, as per local and national policy. Biodiversity net gain occurs in development when the project leaves the natural environment in a better state than it was prior to the project. To achieve biodiversity net gain, the developer is required to ensure that wildlife habitats are created or enhanced. It requires the development to result in a demonstrable increase in habitat value to the baseline (how the site was prior to development). Biodiversity net gain should be demonstrated quantitatively.

To demonstrate biodiversity net gain, the value of the habitats is assessed using a recognized metric tool to calculate biodiversity units. The biodiversity losses or gains resulting from the development are then calculated by subtracting the baseline (pre-development) units from the post development units. The Statutory Biodiversity Metric Calculation tool (Defra 2024a) has been used to demonstrate biodiversity net gain in a quantitative manner.

The *Biodiversity Net Gain Good Practice Principles for Development* (CIEEM, CIRIA, IEMA 2016) are a set of ten principles which have been produced to provide a framework that helps improve the UK's biodiversity by contributing towards strategic priorities to conserve and enhance nature while progressing with sustainable development. To demonstrate that biodiversity net gain has been achieved in a qualitative manner for a development, it would need to be shown that the development meets the ten pre-defined principles as listed below:

- *Apply the mitigation hierarchy*
- *Avoid losing biodiversity that cannot be offset by gains elsewhere*
- *Be inclusive and equitable*
- *Address risks*
- *Make a measurable net gain contribution*
- *Achieve the best outcomes for biodiversity*
- *Be additional*
- *Create a net gain legacy*
- *Optimise sustainability*

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- *Be transparent*

1.2 Objectives of the report

The BNG assessment has been produced in accordance with the British Standard (BS) for Biodiversity – Code of practice for planning and development, BS42020:2013.

The objectives of this report are as follows:

1. *To identify the planning policy context relevant to BNG matters on the site.*
2. *To describe the baseline biodiversity value of the site based on the UK Habitat condition assessment.*
3. *To evaluate the proposed biodiversity of the site based on the agreed final landscape proposals.*
4. *To calculate the predicted change in the biodiversity unit value of the site post development and demonstrate the potential biodiversity net gain of the proposed development in a qualitative manner.*
5. *To assess if the proposed development meets the requirements of the trading rules and demonstrate how the proposed development does meet those requirements.*
6. *To demonstrate how the proposed development meets the ten principles set out in the 'Biodiversity Net Gain Good Practice Principles for Development' and has led with the mitigation hierarchy.*

1.3 Structure of the Report

The remainder of this report is structured in the following manner:

- *Section 2 Planning Policy Context. This describes the national, county and district level planning policy relevant to biodiversity net gain matters in relation to the proposed development.*
- *Section 3 Methods. Describes the methods used to undertake the Biodiversity Net Gain Assessment.*
- *Section 4 Proposed Development. This section describes the proposed development.*
- *Section 5 Baseline Biodiversity Unit Assessment. This section describes the biodiversity baseline information, identifies key habitats, analyses the condition of the baseline habitats, and provides the findings of the baseline biodiversity units.*
- *Section 6 Proposed Biodiversity Unit Assessment. This analyses the effects of the proposed development on the baseline biodiversity units identified in section 5 and details the provision of biodiversity within the proposed development. This section will also assess the proposed development against the mitigation hierarchy and ten principles.*
- *Section 7 BNG Good Practice Principles. This section outlines how each of the BNG Principles* have been applied as part of the assessment.
- *Section 8 Conclusion. This final part of the report summarises the overall effects on biodiversity on the site and if the proposed development can achieve a net gain in biodiversity.*

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1.4 The Author

This document has been prepared by Simon Fawcett BSc (Hons) MCIEEM, an ADAS Principal Ecological Consultant. Simon is a professional member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and holds a bachelor's degree in ecology. ADAS is a Landscape Institute and CIEEM registered practice, and all work is prepared and reviewed internally by senior highly experienced Landscape Architects and Ecologists.

2 Legislation and Policy Background

2.1 National Planning Policy Framework

The National Planning Policy Framework (NPPF) (Department for Levelling Up, Housing and Communities, 2024), is a policy framework document which provides a range of important principles. Paragraph 187 of the NPPF states that decisions should contribute to and enhance the natural local environment by:

'Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'

Paragraph 188 goes on to state:

'… take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.'

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles (paragraph 193):

'opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.'

2.2 The Environment Act (2021)

Para 2 (3) of Schedule 14 of The Environment Act 2021 makes it mandatory for all new developments (with some limited exceptions) to achieve a biodiversity net gain (BNG) of at least 10% by the time the development is completed compared to the pre-development biodiversity value of the onsite habitat. This percentage may be amended in the future by the Secretary of State. Please note that some Local Policies stipulate a higher target than this.

The Act allows three methods for securing biodiversity net gains:

1. enhancement of the biodiversity of land to which the planning permission relates;
2. the allocation of registered offsite biodiversity gain to any development for which the planning permission is granted; and
3. the purchase of biodiversity credits for any such development.

A biodiversity gain statement must set out whether, and if so how, the biodiversity gain objective applies in relation to development where the onsite habitat is irreplaceable, how the development will minimise

any adverse effects to the onsite habitat, and what the evidence must be produced to show how the biodiversity net gain has been met upon completion of the development.

Biodiversity gains will need to be maintained for at least 30 years after the development is completed.

2.3 Local Policy

Table 1 details the policies within North Yorkshire County Council Minerals and Waste Joint Plan (2022) and Scarborough Borough Council Local Plan (2017), which are relevant to the ecological features.

Table 1: Summary of relevant local planning policy - North Yorkshire County Council Minerals and Waste Joint Plan (2022) and Scarborough Borough Council Local Plan (2017).

Policy	Description
Policy D01 – Presumption in favour of sustainable minerals and waste development	When considering development proposals, the Authorities will take a positive approach that reflects the presumption in favour of sustainable development contained in the NPPF. The Authorities will always work proactively with applicants to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social, and environmental conditions in the area. Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise. Where there are no policies relevant to the application or relevant policies are out of date, then the Authority will grant permission unless: ▪ Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the NPPF taken as a whole; or ▪ Specific policies in the NPPF indicate that development should be restricted, such as policies relating to National Parks and AONBs. Where proposals constitute major development in the National Park and AONBs, they will be assessed against the requirements for major development in designated areas set out in Policy D04 of this Joint Plan.
Policy D07 – Biodiversity and Geodiversity	1. Proposals will be permitted where it can be demonstrated that, having taken into account any proposed mitigation measures, there will be no unacceptable impacts on biodiversity or geodiversity. The level of protection provided to international, national, and locally designated sites are outlined in parts 2) to 8) below. 2. A very high level of protection will be afforded to sites designated at an international level, including SPAs, SACs, and RAMSAR sites. Development which would have an unacceptable impact on these sites will not be permitted. 3. Development, whether inside or outside of a SSSI, which is likely to have an adverse effect on the notified special interest features of a SSSI or a broader impact on the national network of SSSIs will only be permitted where the benefits of the development at that location clearly outweigh the impact to the SSSI features and the broader SSSI network. The loss or deterioration of irreplaceable habitats, including ancient woodland or aged or veteran trees, will only be permitted where both the need for, and the benefits of, the development at the proposed location clearly outweigh the impact or loss. 4. Where development would be located within an Impact Risk Zone defined by Natural England for a SPA, SAC, RAMSAR site, or SSSI, or at any other location at which it could have an adverse impact on the SPA, SAC, RAMSAR site, or SSSI, and the development is of a type identified by Natural England as one which could potentially have an adverse impact on the designated site, proposals should be accompanied by a detailed assessment of the potential impacts and include proposals for mitigation and enhancement where relevant. 5. Locally important sites and assets include: i. Sites of Importance for Nature Conservation (including candidate sites); ii. Local Nature Reserves; iii. Local Geological Sites; and

Policy	Description
	iv. Habitats and species of principal importance or other sites of geological or geomorphological importance. Development will not be permitted that will result in an unacceptable impact on locally important sites and assets unless it can be demonstrated that: ▪ the benefits of development clearly outweigh the nature conservation value or scientific interest of the site and its contribution to wider biodiversity objectives and connectivity; and ▪ the proposed mitigation or compensatory measures are equivalent to the value of the site/asset. 6. Through the design of schemes, including any proposed mitigation and/or compensation measures, proposals should seek to contribute positively towards the delivery of agreed biodiversity and/or geodiversity objectives, including those set out in agreed local Biodiversity or Geodiversity Action Plans, or in line with agreed priorities of any relevant Local Nature Partnership, with the aim of achieving net gains for biodiversity or geodiversity and supporting the development of resilient ecological networks. 7. In exceptional circumstances, and where the development site giving rise to the requirement for offsetting is not located within a SPA, SAC, RAMSAR, or SSSI, the principle of biodiversity offsetting to fully compensate for any losses will be supported on a site-by-site basis and as a last resort in accordance with the mitigation hierarchy. These circumstances specifically include where: i. It has been demonstrated that it is not possible to fully avoid or mitigate against adverse impacts; and ii. The provision of compensatory habitat within the site would not be feasible; and iii. The need for, and the benefits of, the development in the proposed location outweigh the need to protect the site; and iv. Any compensatory gains would be delivered within the minerals or waste planning authority area in which the loss occurred, unless otherwise agreed by the planning authority. Compensatory gains outside of the planning authority area will only be deemed as acceptable where it is clearly demonstrable that the approach will lead to greater biodiversity and/or geodiversity benefits than alternative options within the planning authority area. 8. Proposals must consider the cumulative impacts as a result of a combination of individual impacts from the same development and/or through combinations of impacts in conjunction with other development. Proposals will only be permitted where it would not give rise to unacceptable cumulative impacts.
Policy D10 – Reclamation and after use	**Part 1:** Proposals that require restoration and after use elements will be permitted where it can be demonstrated that they would be carried out to a high standard and, where appropriate to the scale and location of the development, have demonstrably: i. Encouraged early discussions with local communities and stakeholders, reflecting their outcomes in the schemes where practicable. ii. Considered the location and context of the site, including implications of other significant development and affected environmental assets or infrastructure. iii. Acknowledged the potential positive and adverse impacts, including cumulative effects, while maximizing benefits and minimizing harm. iv. Considered potential impacts from and on climate change. v. Made the best use of on-site materials for reclamation, only importing waste when essential. vi. Provided for phased restoration when applicable, ensuring restoration at the earliest opportunity as per an agreed timescale. vii. Included long-term implementation and management plans for restoration and after use, except in cases of agriculture or forestry, where a statutory 5-year aftercare applies. **Part 2:** In addition to Part 1, proposals will be permitted which deliver a more targeted approach to minerals site restoration and after use by contributing towards objectives, appropriate to the nature, scale, and location of the site, including: i. Prioritizing the protection of soils and potential creation of areas of best and most versatile agricultural land. ii. Providing flood storage capacity to minimize upstream and downstream flooding, particularly in the Swale and Ure floodplains.

Policy	Description
	iii. Enhancing the special qualities of National Parks and AONBs or facilitating the enjoyment of those qualities. iv. Ensuring reclamation proposals respect airfield safeguarding constraints while maximizing restoration benefits. v. Protecting important heritage assets and, where practicable, enhancing their significance and opportunities for public enjoyment. vi. Reflecting locally agreed priorities for green infrastructure and ecosystem services in designated corridors. vii. Enhancing opportunities for public access and recreation near major settlements. viii. Achieving significant net gains for biodiversity, contributing to resilient ecological networks and delivering habitats important at a landscape scale (e.g., wet grasslands, species-rich grasslands). ix. Creating geodiversity benefits and contributing to priorities in any relevant Geodiversity Action Plan.
Policy D12: Protection of agricultural land and soils	Best and Most Versatile (BMV) agricultural land will be safeguarded against unnecessary and irreversible loss. Where development on BMV land is justified, proposals must prioritize soil protection and enhancement, ensuring the long-term potential to recreate BMV areas. Relevant developments will be subject to aftercare requirements to achieve a high standard of agricultural restoration. All development proposals must demonstrate that practicable steps will be taken to sustainably conserve and manage on-site soil resources. Development that may irreversibly damage blanket peat or other ecologically significant soils contributing to carbon storage will not be permitted.
Policy ENV 8 - Green Infrastructure	The value and strategic role of the following Green Infrastructure corridors within the Local Plan area will be protected and enhanced in line with the hierarchy below: a) Regional importance: 'Coast' and the 'River Derwent'; b) Sub-Regional importance: 'Esk'; and c) Locally important assets and corridors, including the 'Hertford' corridor. Proposals for the creation of new Green Infrastructure assets that improve connectivity and accessibility within the above corridors, or lead to the creation of new corridors, will be supported. Developments that will have an unacceptable impact on Green Infrastructure will be resisted unless other policy considerations within this Local Plan indicate otherwise. Proposals for all forms of development should investigate the potential to integrate with nearby existing Green Infrastructure assets by promoting accessibility from the proposed development to the relevant asset or assets. Equally, proposals will be supported where the provision of new green spaces and other Green Infrastructure assets within new development would be delivered as a connected network, both in terms of internal links and external connectivity with Green Infrastructure assets that are within walking distance to the development.

3 Methods

3.1 Baseline Habitat Assessment

This assessment was carried out as a desk-based exercise, using the results of the UK Habitat Classification Survey (UKHab 2023) shown in Appendix 1 and Statutory Biodiversity Metric Condition Assessment (Defra 2024b) undertaken by ADAS in June 2024 as part of a preliminary ecological appraisal (ADAS 2024) and based on client proposals, shown in Appendix 2.

3.2 The Mitigation Hierarchy

The aim of the BNG assessment is to identify, predict and evaluate potential key effects arising from the proposed development and to assess them against the mitigation hierarchy. The mitigation hierarchy requires that developers first take steps to avoid and then to minimise impacts on biodiversity. Only after these steps are taken should developers look to compensate for losses that cannot be avoided. Finally, if compensation within the development footprint is not possible or does not generate the most benefits for nature conservation, the losses should be offset elsewhere. The proposals have been developed in accordance with the British Standard for 'Process for designing and implementing Biodiversity Net Gain – Specification', BS8683:2021 to reduce risk to harm of biodiversity and maximise the potential gains on the site.

3.3 Biodiversity Metric Rules

The rules set out in the table must be followed, otherwise a biodiversity net gain cannot be claimed for the project.

Table 2: Metric rules.

Rule	Details
1	The trading rules of the biodiversity metric must be followed.
2	Biodiversity unit outputs, for each type of unit, must not be summed, traded, or converted between types. The requirement to deliver at least a 10% net gain applies to each type of unit.
3	To accurately apply the biodiversity metric formula, you must use the statutory biodiversity metric calculation tool or small sites biodiversity metric tool (SSM) for small sites. The tools remove the need for a user to manually calculate the change in biodiversity value. The tool will summarise the results of the calculation and inform a user whether the biodiversity net gain objective has been met.
4	In exceptional ecological circumstances, deviation from this biodiversity metric methodology may be permitted by the relevant planning authority.

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3.4 Biodiversity Metric Calculation

Biodiversity metrics (units) were calculated for the site using the "Statutory Biodiversity Metric" and guidance available on the DEFRA Website in December 2024 (Defra 2024a, 2024b). The biodiversity metric spreadsheet is provided as an Excel file which sits alongside this report.

The metric uses area and linear habitat features as a proxy measure for capturing the value and importance of biodiversity. It uses a calculation in MS Excel to allow for the importance of these features for nature: their size, ecological condition, distinctiveness and location. The metric enables assessments to be made of the baseline (pre-intervention) biodiversity value of a site in terms of 'biodiversity units' and calculates the projected post-development (post-intervention) biodiversity value. The metric can also be used to measure off-site biodiversity changes for a project or development and can be applied from the level of an individual field to, for example, an entire river catchment.

The calculator uses the following variable elements to determine biodiversity units, based on the information collected in the field:

Habitat type: The original survey of the proposed development site was based on the UK Habitat Classification System Version 2.0 (UKHab 2023), shown in Appendix 1.

Area (Hectares): The area has been measured based on the digitised UK Habitat Classification map using ArcView Geographical Information System (GIS). Measurements have been rounded up or down to the nearest three decimal places to achieve a minimal mapping unit (MMU) of 0.01 ha. Mapping habitats at different times of year may lead to variation between where one habitat finishes, and another begins as there is potential overlap between habitats (the ecotone). The actual field mapping is based on both field survey and aerial imagery to achieve the best representation of the areas covered by each habitat identified onsite. Photographs of each habitat on-site are provided in Appendix 3. The areas for the post development site were taken from client proposals shown in Appendix 2 (Document number: *Biodiversity Net Gain_Burniston well site*).

Condition: The condition is a means to measure the quality of a habitat based on a series of physical characteristics and typical species of a particular habitat type. To aid the process, the Statutory Biodiversity Metric Technical Annex 1 (Defra 2024b), provides 'condition sheets.' Condition sheets provide a list of positive indicators for each habitat and dependent on how many positive indicators a particular habitat meets, will equate to the relevant condition for that specific habitat. In order that this process can be followed, in relation to this calculation, the number of positive indicators that are met for each habitat type are presented in the accompanying excel document for each habitat found onsite.

Strategic significance: This element is to assess the habitats on site in relation to the geographical location in which they are located. Information to determine the significance of a habitat within a specific landscape can be found in Local Nature Recovery Strategies (LNRS) as well as a variety of sources that

include local plans, local biodiversity and National Character Areas. The strategic significance is based on three categories which equate to a different score, which are as follows: High – 1.15; Medium – 1.1 and Low - 1.

3.5 Limitations

Measurements are based on a two-dimensional mapping and would assume the site is completely flat and therefore certain habitats may be greater in extent if they occur on a slope.

In the field the surveyor will have judged the approximate area of each of the habitat type and where appropriate used aerial imagery to assist with mapping of the habitats as accurately as possible.

4 Proposed Development

The proposed development will include the construction of a single well pad, followed by the drilling and testing of an appraisal wellsite. The proposed works are to primarily take place within an area of Modified Grassland located toward the north of the site (Grid Reference: TA 02072 92795).

No trees, hedgerows, scrub, neutral grassland or woodland boundaries are to be impacted by the works (removal / pruning). Access to the site will be from the main road (Coastal Road - A165), through a large urban and industrial area currently occupied by businesses involved in storage, metalwork, and automotive services. The access route includes approximately 200 m of existing hardstanding before reaching the southwestern edge of the site, where a large open access route directly connects to the main site (Grid Reference: TA 01875 92685).

To facilitate the proposed works, an area of Modified Grassland will be temporarily lost due to well construction and necessary excavations. However, this habitat is to be fully restored to that of its original quality or better upon completion of the works and is expected to have reverted back to its existing condition within two years.

Upon completion, the well and any excavations will be 'plugged and abandoned' (P&A). All construction equipment will be removed.

The well pad construction is estimated to take approximately four months, with drilling and testing expected to last approximately 30-60 days. The plugging and abandonment phase will take around five days, while full restoration is anticipated to require approximately nine months.

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5 Baseline Biodiversity Unit Assessment

5.1 On-site Baseline

The primary habitats identified within the UK Habitat Classification Survey on site are listed and described below. All habitats are marked on the UK Habitat Classification survey map in Appendix 1 and each habitat type is illustrated with a photograph in Appendix 3.

5.1.1 Modified Grassland (g4)

Located in the northern portion of the site was a large area of modified grassland which covered approximately 1.4 hectares, occupying the majority of the site. This grassland had been recently mown at the time of the survey with species found predominantly consisting of Perennial Ryegrass and Creeping Buttercup, with occasional species such as Common Sorrel and Ribwort Plantain (Appendix 3: Photographs: 1 - 2). Although, the modified grassland had recently been mown, sufficient regrowth of species allowed for identification of habitat.

Closer to the northern, eastern, and western boundaries of the grassland, where the grassland meets hedgerows and woodland, additional species such as Greater Horsetail, Cleavers (*Galium aparine*), Hogweed, and Common Nettle were observed. The grassland is bordered and connected to the hedgerows, woodland and neutral grassland found on site.

This modified grassland area forms part of the main site of the proposed works, where the construction of a temporary well pad and well installation is set to take place within the centre. Although a portion of the grassland will be temporarily lost or damaged due to excavations related to the drilling and construction, the remainder of the site and surrounding habitats (hedgerows, trees, woodland, neutral grassland) are to remain unaffected. Upon completion of the works, the grassland will be fully restored to its original state, or potentially enhanced.

5.2 Offsite Habitats

The following habitats have been included for transparency but will not be impacted as a result of the proposed development.

5.2.1 Other Woodland; Mixed (w1h)

A small area of mixed woodland (approximately 1.3 ha) was found on site that stretched along the entirety of the southern and eastern boundaries, encroaching slightly towards the centre of the site.

Species mix consisted predominantly of Sycamore (*Acer pseudoplatanus*), Silver Birch (*Betula pendula*), Crab Apple (*Malus sylvestris*), Wild Cherry (*Prunus avium*), Rowan (*Sorbus aucuparia*), Ash, Hawthorn, and Hazel (*Corylus avellana*) with occasional species including Common Holly (*Ilex aquifolium*) and Pedunculate Oak. These trees ranged from young to semi-mature in age and were all in good condition

with no signs of disease/damage. Towards the southern boundary of the woodland were multiple Hazel trees. These were young trees, planted within an equal distance from one and other with a bare ground field layer. These trees were in good condition. These trees form a small part of the overall semi-natural woodland with both young, planted trees and self-set trees.

This woodland does not qualify as a Habitat of Principal Importance (HPI) under Natural Environment and Rural Communities Act 2006, as the woodland was predominantly composed of non-native species such as Sycamore and lacks the specific ecological characteristics required to qualify as a HPI such as the presence of ancient or semi-natural woodland types or priority species. Additionally, the woodland's relatively young age and the presence of planted trees further contribute to its exclusion from HPI status.

The central field layer of the woodland was predominantly bare ground with minimal vegetation, consisting of sporadic patches of Perennial Ryegrass (*Lolium perenne*), Common Nettle (*Urtica dioica*) and Bramble. However, moving towards the woodland boundaries and closer to the centre of the site, ruderal species became more frequent and, in some areas, dominated the field layer of the woodland. These included large amounts of Common Nettle, Common Sorrel (*Rumex acetosa*), Greater Horsetail (*Equisetum telmateia*). Grasses and grass / herb species were limited to Perennial Ryegrass, Smooth Meadow-grass (*Poa pratensis*), Creeping Buttercup (*Ranunculus repens*), thistle (*Cirsium spp.*) with large amounts of Hogweed (*Heracleum sphondylium*) found throughout the boundary of the woodland, particularly towards the northern boundary of the site.

This stretch of woodland was connected and extends to a similar patch of woodland just off-site, towards the southern boundary along the more industrial section of the access route. The woodland was isolated from similar patches of woodland within the wider area, separated by an extensive landscape of agricultural land and residential dwellings.

5.2.2 Other Neutral Grassland (g3c)

Towards the southern portion of the site, an area of solar panels was installed, consisting of five rows, each approximately 80 m in length. The understorey beneath these panels predominantly consisted of Other Neutral Grassland, covering about 0.7 hectares. This grassland was dominated by grasses such as Perennial Ryegrass, Cocksfoot (*Dactylis glomerata*), and Meadow Foxtail (*Alopecurus pratensis*), with occasional floral species including Red Clover (*Trifolium pratense*), Creeping Buttercup, and Mouse-ear (*Cerastium spp.*). Additionally, sporadic patches of Common Sorrel, Ribwort Plantain (*Plantago lanceolata*), and Broad-leaved Dock (*Rumex obtusifolius*) were found toward the boundaries, where the grassland transitions into modified grassland in the northern part of the site.

Located to the south of the grassland and solar panels, OS imagery indicated the presence of a small pond (Grid Reference: TA 01960 92680). However, during the field survey, this area was completely dry, devoid of any water, and dominated by grass and rush species. The scattered rush vegetation suggested that this

area likely becomes waterlogged and is prone to seasonal flooding throughout the year. Species observed included large clusters of Soft Rush and Creeping Spike-rush (*Eleocharis palustris*), with sporadic species such as Common Sorrel, Broad-leaved Dock, Rosebay Willowherb (*Epilobium angustifolium*) and various moss species found towards the outer edges of the area. The feature was surrounded by large amounts of neutral grassland within close proximity to the eastern and southern woodland boundaries of the site.

5.2.3 Native Hedgerow (h2a)

Along the northern and western boundaries of the site were extensive stretches of mature Hawthorn hedgerow. The northern boundary (H1) featured a stretch of primarily mature Hawthorn and Blackthorn (*Prunus spinosa*) hedgerow, approximately 120 m in length and 2 m wide. The hedgerow was in good condition, with no obvious signs of damage or disease, no gaps within the hedgerow and connected to the woodland towards the north-eastern boundary of the site. The understory was heavily dominated by Common Nettle, Cleavers, Greater Horsetail, Creeping thistle (*Cirsium arvense*), and Hogweed. Grasses present included Cocksfoot and Meadow Foxtail.

The second stretch of hedgerow (H2) was approximately 250 m in length and 2 m wide which ran along the western boundary of the site. This hedgerow was similar to H1, primarily consisting of mature Hawthorn and Blackthorn, with similar understory consisting primarily of scrub (Secondary code: 10), and grass species. However, this hedgerow contained multiple gaps (approximately 10 m accumulatively) and included a small number of scattered trees, including a mature Holly, Elder (*Sambucus nigra*), and Sycamore.

The mature Holly and Sycamore trees were in good condition, showing no obvious signs of disease or damage. In contrast, the mature Elder was severely damaged, seemingly by recent hedgerow trimming (Grid reference: TA 02046 92847), with dead or fallen sections of the tree having since been removed from the site. The western hedgerow linked to a line of trees and area of dense ruderal understorey located towards the main entrance and proposed access route (Grid reference: TA 01875 92685). This stretch of trees was approximately 80 m in length and consisted of a mixture of semi-mature and mature Sycamore and Ash, with an understorey dominated by tall ruderal species such as Common Nettle, Creeping Thistle, Rosebay Willowherb. Hogweed and grass species including Cocksfoot, Perennial Ryegrass, and Meadow Foxtail were more prevalent where the tree line meets neutral grassland.

Both stretches of hedgerow are considered to be Habitats of Principal Importance (HPI) and have potential to be considered 'important' under the Hedgerow Regulations 1997 based on their ecological value, age, structure, condition, and contribution to local biodiversity. The hedgerows provide critical habitat for a variety of wildlife, including birds, invertebrates, reptiles, bats and other small mammals by offering food, shelter, and nesting sites. The mature hedgerows also serve as important corridors for wildlife, helping to maintain ecological connectivity across the landscape.

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These habitats were bordered by extensive agricultural land and residential areas to the south. The hedgerows were connected to similar habitats within the broader landscape, including extensive hedgerows. However, the surrounding area was predominantly open agricultural land with occasional and scattered patches of woodland. At the time of this report, no trees or hedgerows are currently scheduled for removal or pruning, and the ruderal vegetation surrounding the understoreys of the trees and hedgerows is also to remain unaffected.

5.2.4 Other Standing Water (r1g)

Located approximately 300 m west of the primary working area and approximately 100 m of the proposed access route (off-site) was a small freshwater pond (approximately 0.4 ha) situated within an adjacent agricultural field (Grid Reference: TA 01711 92687). At the time of the survey, the pond was filled with water; however, the exact depth could not be determined. The pond was heavily isolated, surrounded by extensive arable fields and hardstanding, with limited connecting terrestrial habitats.

The pond itself was surrounded by unmanaged dense marginal vegetation heavily dominated by semi-aquatic species such as Common Reed (*Phragmites australis*) and Bulrush (*Typha latifolia*) and other occasional species including Greater Pond Sedge (*Carex riparia*) and Great Willowherb (*Epilobium hirsutum)* which created a large amount of dense shaded areas around the pond. The pond was adversely affected by pollution, runoff from the surrounding field, with a high presence of breeding waterfowl.

5.3 On-site Habitat Baseline Assessment

The condition of each habitat has been assessed against the relevant positive indicators. Summaries of the habitat units for each baseline habitat are provided in Table 3. A full breakdown of the condition assessments is provided in the accompanying excel document for each habitat found on-site.

For strategic significance, the following has been considered the most appropriate for each habitat:

- *Modified Grassland: Habitat / location not defined within any appropriate assessable documentation and therefore is not associated with any specific local strategy.*

Table 3: Baseline assessment – on-site area habitats.

Habitat type	Area (hectares)	Condition	Strategic significance	Total habitat units
Modified Grassland	1.28	Poor	Area/compensation not in local strategy/ no local strategy	2.56
Total	**1.28**	-	-	**2.56**

5.3.1 Trading Rules

For habitat trading purposes the following is required for each baseline habitat:

- *Modified grassland: Low distinctiveness. Replace with same distinctiveness or better habitat.*

6 Proposed Biodiversity Unit Assessment

6.1 Impacts of the Proposed Development

The proposed development will result in the temporary loss of existing Modified Grassland on-site while works are undertaken. However, as the works are temporary, the grassland will be reinstated following completion and is expected to return to its pre-construction condition (poor) within two years. As such and in line with the Statutory Biodiversity Net Gain User Guide (Defra 2023a), temporary impacts to this habitat have been excluded from the assessment. Therefore, there will be no loss of biodiversity units as a result of the proposed development.

To achieve a 10% net gain in area biodiversity units on-site, it is proposed that 0.05-ha of existing Modified Grassland in a 'poor' condition will be enhanced to Other Neutral Grassland with a target condition of 'good' through exclusion, ground preparation, the sowing of Emorsgate EM3, or similar and appropriate management including a sensitive cutting regime. The target condition of 'good' is considered appropriate as this land will be specifically managed for BNG purposes and free from land use pressures.

A post construction habitat plan is provided within Appendix 4.

6.2 On-site Habitats

The retained and enhanced on-site area habitats are based on proposals provided by the client and the post construction habitat plan presented in Appendix 2 and 4, respectively, and are summarised in Table 4.

Table 4: Summary of on-site habitat retention and enhancement.

Habitat type	Area (hectares)	Condition	Strategic significance	Total habitat units
Enhancement				
Modified Grassland (poor condition) - Other Neutral Grassland (good condition)	0.05	Good	Area/compensation not in local strategy/ no local strategy	0.38
Retained				
Modified grassland	1.23	Poor	Area/compensation not in local strategy/ no local strategy	2.46
Total	**1.28**	-	-	**2.84**

6.3 Summary of Habitat Changes

The total biodiversity value of the on-site area habitats prior to development was 2.56 units, all of which will be retained (temporary impacts). Post-construction, 0.38 habitat units will be gained through the enhancement of 0.05-ha of existing Modified Grassland in a 'poor' condition to Other Neutral Grassland with a target condition of 'good.

Based on current on-site proposals, the proposed development would result in a 11.05 % net gain in area habitats. Trading rules would also be fully satisfied.

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Table 5: Summary of the Statutory Biodiversity Metric results.

On-site baseline	*Habitat units*	2.56	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	2.84	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site net change (units & percentage)	*Habitat units*	0.28	11.05%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Off-site baseline	*Habitat units*	20.76	
	Hedgerow units	2.24	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	20.76	
	Hedgerow units	2.24	
	Watercourse units	0.00	
Off-site net change (units & percentage)	*Habitat units*	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	0.28	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	*Habitat units*	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
FINAL RESULTS			
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	0.28	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	11.05%	
	Hedgerow units	0.00%	
	Watercourse units	0.00%	
Trading rules satisfied?	Yes ✓		

7 BNG Good Practice Principles for Development

Table 6 outlines the justification of how each of the BNG Principles has been applied as part of the biodiversity net gain assessment.

Table 6: Good practice principles and their consideration within the scheme.

Good Practice Principle	Site Considerations
Apply the mitigation hierarchy	Please refer to the PEA for further details on the mitigation hierarchy (ADAS 2024). Impacts to habitats of medium - high distinctiveness have been avoided. Impacts of the proposed development are temporary.
Avoid losing biodiversity that cannot be offset elsewhere	The project will not result in losses to any statutory designated sites, ancient woodland or other irreplaceable habitat.
Compensate / Offset	On-site proposals are considered sufficient compensation for the loss of existing habitats, all of which are of low distinctiveness. This approach, along with continued care and management, will both protect biodiversity and support local wildlife.
Be inclusive and equitable	The proposed works are temporary, and no long-term impacts are envisaged.
Address risk	Proposed habitat enhancements are practical to achieve on-site in association with the development, which balances the agricultural requirements of the area with the biodiversity goals.
Make a measurable net gain contribution	The Defra Statutory Metric has been used to track the changes from baseline to demonstrate a measurable net gain. See sections 5 and 6 for a detailed summary of the biodiversity metric calculation.
Be additional	Additional species-specific mitigation measures are recommended within the PEA (ADAS 2024).
Create a net gain legacy	It is recommended that a Biodiversity Net Gain Management and Monitoring Plan is produced for the project, detailing management prescriptions for the proposed habitat enhancement and creation.
Optimise sustainability	By achieving net gain through recommendations suitable to the site and practical in the long term, ecological enhancements on site will contribute to the overall sustainability of the development.
Be transparent	The LPA will be provided with the PEA report, BNG Assessment report, the Defra Metric calculation sheet and supporting drawings used in the calculations. All biodiversity metric choices have been fully explained and justified. The project has not satisfied the BNG trading rules; this has been explained and justified (see Section 6.4).

7.1 Consideration of the Mitigation Hierarchy

Table 7 outlines how the mitigation hierarchy is being considered.

Table 7: Mitigation hierarchy.

Hierarchy Step	Site Considerations
Avoid	The development avoids all impacts on any non-statutory or statutory designated sites, ancient woodland or other irreplaceable habitat. Pre-development habitats on the site are widespread both locally and nationally.
Minimise	The development is limited to low distinctiveness habitats. Measures to avoid harm to nesting birds and bats during works have been outlined within the PEA (ADAS 2024).
Compensate / Offset	Detailed habitat compensation measures have been identified using the Statutory Biodiversity Metric, see following section.

8 Conclusion

The proposed development essentially comprises the temporary erection of a single well pad and the drilling of an appraisal wellsite at Coastal Road, Burniston, North Yorkshire, YO13 0DB. The site currently comprises Modified Grassland.

As the works are temporary, all existing habitats will be fully re-instated following completion and are expected to return to their pre-works condition within two years. Therefore, no biodiversity units will be lost to facilitate the proposed works.

Post-construction, 0.38 habitat units will be gained on site through proposals which includes the enhancement of 0.05-ha of existing Modified Grassland to Other Neutral Grassland with a target condition of 'good'.

Under the current scheme design, post-development habitats and their associated target conditions will achieve a total net change of 0.28 area habitat units, which represents an 11.05 % net gain.

A management and monitoring plan should be prepared for the site prior to the start of construction, to detail how the recommended habitat protection and enhancement measures will be implemented, and to detail long-term monitoring requirements in order to secure the targeted net gains.

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Appendix 1: UK Habitat Classification Survey Map

See following page.



Europa Oil & Gas (Holdings) Plc

Coastal Road, Burniston,
North Yorkshire. YO13 0DE

PEA

- Planning Application Boundary
- Survey extent
- Woodland
- Scrub
- Neutral grassland
- Modified grassland
- Hedgerow
- Scattered rushes
- Solar panels
- Not coded
- Line of trees
- Scattered trees
- Target note

TN1 - Pond
TN2 - Damaged tree

Drawn by Paul Taylor 05/09/2024, Verified by Holly Lindley 05/09/2024

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W E
S

0 50 100
Metres

Scale 1:2,000 at A3 size

Map base taken from Zetland Group
DWG. No: ZG-EOG-CLTN-PAA-01

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Appendix 2: Enhancement Proposals

Supplied by the client indicating area to undergo grassland enhancement.



Appendix 3: Photographs



Photograph 1: The extensive modified grassland area, surrounded by woodland, with solar panels - This is the primary area of works.



Photograph 2: Modified grassland found towards the north proportion of the site.

Appendix 4: Post-construction Habitats Plan

See following page

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Europa Oil & Gas (Holdings) Plc

Coastal Road, Burniston,
North Yorkshire, YO13 0DE

Proposed habitats

- Planning Application Boundary
- Modified grassland
- Other neutral grassland

Drawn by Lydia Waite 29/01/2025

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0 50 100 m

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