



Offshore Petroleum Regulator
for Environment & Decommissioning

2026 Conductor driving (Slot 1) operations at Cygnus Alpha Wellhead Platform

Habitats Regulations Assessment (HRA)



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**RECORD OF THE HABITATS REGULATIONS ASSESSMENT UNDERTAKEN
UNDER REGULATION 5 OF THE OFFSHORE PETROLEUM ACTIVITIES
(CONSERVATION of HABITATS) REGULATIONS 2001 (As Amended).**

Document Version	Date Published	Summary of Changes
1.0	17/02/2026	Document created for SNCB review
2.0	26/02/2026	Document for publication

Project Details	
Application reference	Conductor driving (Slot 1) operations at Cygnus Alpha Wellhead Platform
Date application received	20/01/2026
Applicant details	Ithaca (NE) E&P Limited
Applications Being Applied for	DR/2628/0

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Description of the Activity

Ithaca (NE) E&P Limited (Ithaca) have proposed to drive one conductor (slot 1) at the Cygnus Alpha Wellhead Platform from the Valaris Norway jack-up rig (Figure 1). There is potential for the well to be drilled at a later date, but this is not considered part of the project in this Habitats Regulations Assessment. Further, conductor driving will take place from the Valaris Norway jack-up rig. The placement of the rig has been assessed in a previous HRA undertaken by OPRED.

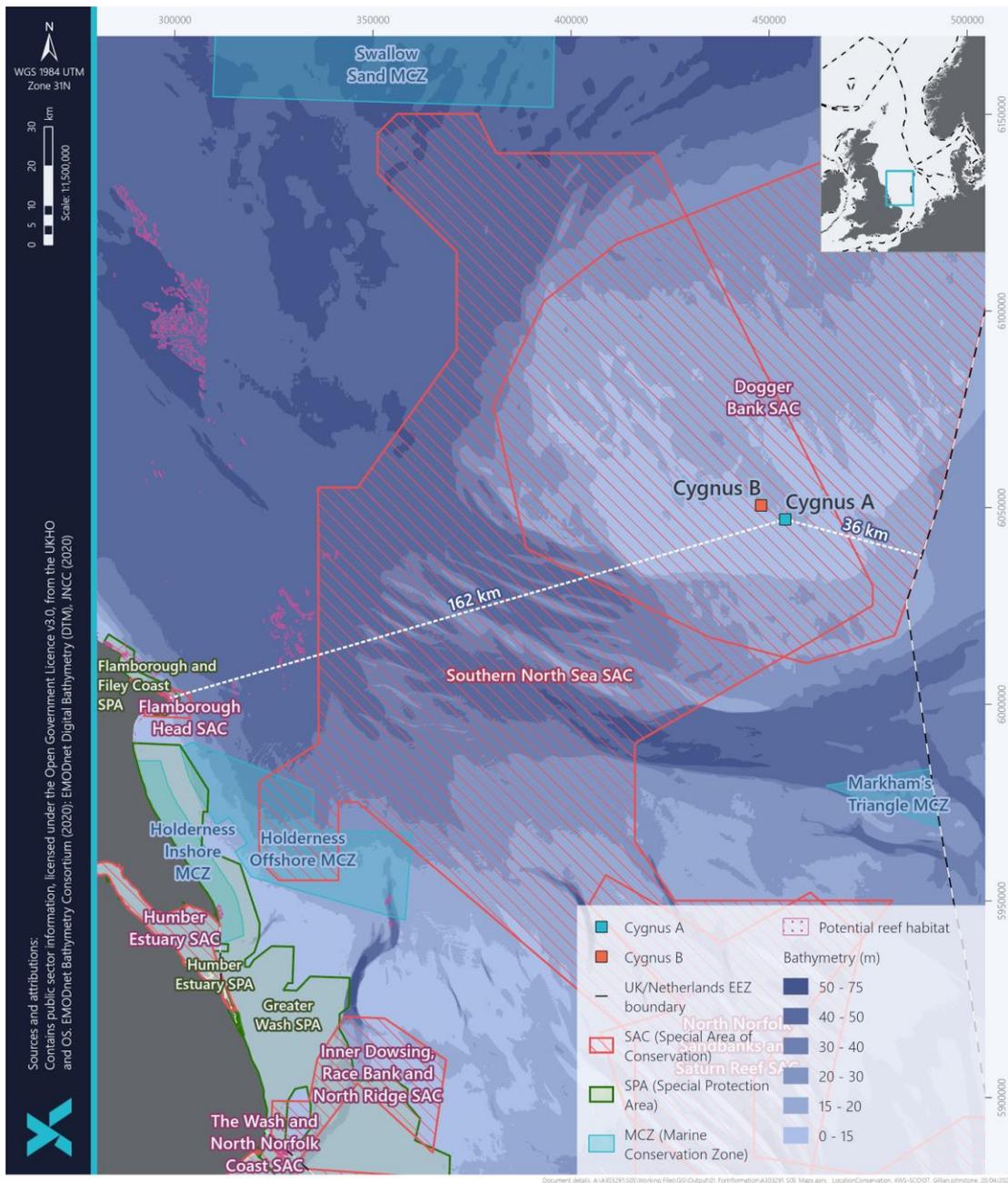


Figure 1: Location of the Cygnus Alpha infrastructure



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Location

The proposed project area is located at the Cygnus field, next to the Cygnus Alpha Wellhead Platform in the Southern North Sea (SNS), in UKCS Block 44/12, approximately 162 kilometres (km) from the UK coastline, and 36 km from the UK/Netherlands Median Line, at a depth of approximately 22 metres (m).

Timing

The timing of conductor driving operations is expected to take place between 2nd March 2026 and 31th May 2026. Conductor driving is expected to take one day. Weather delays may impact anticipated timelines.

Requirement for a Habitats Regulations Assessment

Regulation 5 of the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 (As amended) outlines that the Secretary of State (SoS), before agreeing to the grant of consent of any activity which is likely to have a significant on a relevant site, make an appropriate assessment of the implications for the site in view of its conservation objectives. This document is the record of the SoS appropriate assessment.

Where the term 'Site' is used within this document, it means any site forming the UK National Site Network. The National Site Network is the UK network of protected sites on land and sea which were designated under the Habitats and Wild Birds directives namely Special Protection Areas (SPA) or Special Areas of Conservation (SAC).

The assessment will first determine what sites and protected features are likely to have conservation objectives which could be significantly affected by the activity and will then proceed to undertake an appropriate assessment of the implication of these effects on the site's integrity.



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Stage 1: Test of likely Significant effects (LSE)

Is the activity likely to have a significant effect on the site's conservation objectives?

Pressures associated with the activity

The project is considered to exert the following pressures on the environment:

Underwater noise (impulsive noise)

Underwater noise from impulsive sources for this project are conductor driving activities. These will be undertaken for the planned well. The operations are expected to take place in accordance with the parameters in Table 1.

Table 1. Conductor driving parameters

Parameter	Values
Number of conductors piles	1
Maximum conductor pile diameter	0.77 m
Maximum hammer energy (kJ)	90
Conductor pile material	Carbon Steel
Conductor pile length	Approx. 97.5 m
Conductor driving duration	3.5 hours

Underwater noise (non-impulsive noise)

Underwater noise from non-impulsive sources such as vessel engines and will be generated during the proposed conductor driving operations.

Seabed disturbance

Conductor driving will result in a disturbance of the seabed when it is placed on location.



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Screening of protected sites

The activity is within the following sites:

- Southern North Sea (SNS) SAC
- Dogger Bank SAC

Screened out of the LSE screening assessment

There is no pathway for potential effects on other sites due to the large distance between the sites and the project area (Figure 1).

LSE Assessment

Site features and conservation objectives are taken from relevant SNCB conservation advice packages found on the following webpages:

- <https://jncc.gov.uk/our-work/southern-north-sea-mpa/>
- <https://jncc.gov.uk/our-work/dogger-bank-mpa/>



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Table 2. Test of likely significant Effect

Pressures exerted by Activity	Feature	Is there likely to be a significant effect on the conservation Objectives alone
Southern North Sea SAC		
Underwater noise (impulsive: conductor driving-based)	Harbour porpoise (<i>Phocoena phocoena</i>)	<p>No.</p> <p>The project area supports high numbers of harbour porpoise and the proposed operations will take place in the summer area of the SNS SAC during the summer months.</p> <p>Noise modelling undertaken indicates that, based on the weighted SEL threshold, there is potential for sound levels to cause the onset of permanent threshold shift to harbour porpoise out to 29 m. It is not expected that killing or injury will take place given the operation's methodology and adherence to the JNCC "<i>Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise</i>".</p> <p>The proposed operations involve driving a conductor and as such the effective deterrence range of 5 km has been considered for the activity which may take up to approximately 3.5 hours. The percentage of the summer area of the SNS SAC that may be excluded as a result of proposed operations is 0.002% seasonally and 0.29% daily. The scale of disturbance is sufficiently small and of such short duration to be considered to not result in a likely significant effect when considered alone.</p> <p>Based on the predicted extent of potential impacts, it is concluded that there is no potential for a likely significant effect on harbour porpoise from the proposed activity within or adjacent to the Southern North Sea SAC when considered alone.</p>
Underwater noise (non-impulsive: vessel-based)	Harbour porpoise (<i>Phocoena phocoena</i>)	<p>No.</p> <p>The underwater noise generated by the vessel's engines and machinery is not expected to result in significant impacts including permanent or temporary threshold shift nor behavioural disturbance.</p>



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Pressures exerted by Activity	Feature	Is there likely to be a significant effect on the conservation Objectives alone
Seabed disturbance	Harbour porpoise (<i>Phocoena phocoena</i>)	No. The placement of the conductor will take place in one of the platform slots and disturb 0.5 m ² of the seabed. No significant impact on the conservation objectives of the site is expected from this small footprint.
Dogger Bank SAC		
Underwater noise (impulsive: conductor driving-based)	1110 Sandbanks which are slightly covered by seawater all the time	No. There is no impact pathway for this designated feature from underwater noise.
Underwater noise (non-impulsive: vessel-based)	1110 Sandbanks which are slightly covered by seawater all the time	No. There is no impact pathway for this designated feature from underwater noise.
Seabed disturbance	1110 Sandbanks which are slightly covered by seawater all the time	No. The placement of the conductor will take place in one of the platform slots and disturb 0.5 m ² of the seabed. No significant impact on the conservation objectives of the site is expected from this small footprint. There is high confidence that the sandbank feature and its benthic assembly have high recoverability and are resilient to physical disturbance.

LSE Conclusion: Alone

When considered alone the project is unlikely to cause a significant effect on the conservation objectives of any site.



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LSE In-combination assessment

Southern North Sea SAC:

The following projects have been evaluated to ascertain if they **could** exert a pressure on the SNS SAC's designated feature ("Harbour porpoise (*Phocoena phocoena*)"), which when considered in-combination with those of the proposed operations could result in a significant effect on the site's conservation objectives (Table 3). These projects, in combination, exceed the disturbance thresholds published in the Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs of 20% for daily and 10% for seasonal underwater noise. Therefore, there is potential for likely significant effects in the SNS SAC.

Table 3. Likelihood of plans acting in-combination to cause a likely significant effect for the SNS SAC. Blue highlighted entry denotes the proposed operations.

Project	Significant In-combination effect likely?	What pressures may act in-combination? * See Table 4 for references
East Anglia Three – Monopiling (Abated)	Yes	1
Perenco – Conductor Piling	Yes	1
Hornsea Three – Monopiling (Abated)	Yes	1
NEP Expansion – Geophysical Survey (Sub-Bottom Profiling)	Yes	1
NEP Expansion – Seismic Survey	Yes	1
NEP Expansion – Vertical Seismic Profiling	Yes	1
NEP Phase 1 – UXO Clearance (HO)	Yes	1
NEP Phase 1 – Vertical Seismic Profiling	Yes	1
Norfolk Vanguard West – UXO Clearance (LO)	Yes	1
Eastern Greenlink 2 – UXO Clearance (HO)	Yes	1
NEP Phase 1 – UXO Clearance (LO)	Yes	1
Hornsea Three – UXO Clearance (LO)	Yes	1
Ithaca (Cygnus) – Conductor Pile Driving of the 44/12a Slot 1 Well	Yes	1

Table 4. Pressure reference – Key of pressures use in in-combination assessment

Pressure	Ref
Underwater noise (impulsive: conductor driving-based)	1
Underwater noise (non-impulsive: vessel-based)	2
Seabed disturbance	3



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Dogger Bank SAC:

The proposed activity will impact 0.5 m² arising from the placement of a conductor at the Cygnus AWHP. The seabed disturbance will be contained within the 500 m zone of the Cygnus AWHP, which is already impacted to some extent by the oil and gas activity taking place within it. The impact on the Dogger Bank SAC is estimated at 0.000000041% of the total area of the SAC. The footprint created is considered so small as to be immaterial in terms of impacts alone and in combination with other plans and projects.

The operation may lead to very minor localized and temporary re-suspension of sediments into the water column. The re-settlement of this sediment could result in the smothering of benthic species with the impact related to their ability to clear particles from their feeding and respiratory surfaces. Infaunal communities will gradually become re-established through re-adjustment to the new sediment surface and by migration and/or reproduction and settlement from nearby undisturbed areas. With regard to the settlement of re-suspended sediments, the infaunal communities that dominate within the sedimentary environment present are by their nature less susceptible to temporary variations in sedimentation rates. In addition, the benthic environment is dynamic and subject to natural disturbance from wave and tidal action and there is good potential for immediate or rapid recovery from temporary and localized sedimentation effects.

LSE Conclusion: In-combination

It cannot be concluded that the activity is unlikely to cause a significant effect in-combination with other plans or projects on the conservation objectives of the following site:

Site	Feature
Southern North Sea SAC	Harbour porpoise (<i>Phocoena phocoena</i>)

It can be concluded that the activity is unlikely to cause a significant effect in-combination with other plans or projects on the conservation objectives of the following site:

Site	Feature
Dogger Bank SAC	1110 Sandbanks which are slightly covered by seawater all the time)



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Stage 2: Appropriate Assessment

Could the activity adversely affect the integrity of a site?

Following the LSE assessment (Stage 1) the SoS must undertake an AA to determine whether the proposed activities, when considered in combination with other plans and projects, could have an adverse effect on:

Site: Southern North Sea SAC

Features: Harbour porpoise (*Phocoena phocoena*)

Pressures: Underwater noise (impulsive: conductor driving-based)

To ensure that the integrity of the SNS SAC is maintained and that it makes the best possible contribution to maintaining Favourable Conservation Status (FCS) for Harbour Porpoise in UK waters, in the context of natural change, this will be achieved by ensuring that:

1. Harbour porpoise is a viable component of the site;
2. There is no significant disturbance of the species; and
3. The condition of supporting habitats and processes, and the availability of prey is maintained.

The ‘*integrity of the site*’ is not defined in the Conservation Objectives. However, EU and UK Government guidance defines the integrity of a site as “*the coherence of the site’s ecological structure and function, across its whole area, or the habitats, complex of habitats and/or populations of species for which the site is or will be classified*’ (EC 2000, Defra 2012). Therefore, the integrity of the site applies to the whole of the site and it is the potential impacts across the whole of the site that are required to be appropriately assessed. Pressures that would affect site integrity include:

- killing or injuring harbour porpoise (directly or indirectly);
- preventing their use of significant parts of the site (disturbance/displacement);
- significantly damaging relevant habitats; or
- significantly reducing the availability of prey.

The JNCC and Natural England advice is that ‘*noise disturbance within the site should not exclude harbour porpoise from more than 20% of the site on any given day. Over a season, the advice is that an average loss of access to more than 10% of the SAC should be considered significant, recognising that within the SAC the abundance of harbour porpoise per unit habitat is generally higher than the equivalent sized habitat in the rest of the relevant Management Unit. Management of temporary habitat ‘loss’ to below defined area/time thresholds is therefore designed to ensure that it continues to contribute in the best possible way to the maintenance of the species at FCS.*’ (JNCC, 2020).



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Appropriate Assessment: Harbour porpoise (*Phocoena phocoena*)

At the LSE assessment stage it was concluded that no significant impact on the designated features of any site will occur when considering the project alone.

In-combination Assessment: Harbour porpoise (*Phocoena phocoena*)

Projects Considered In-combination

The projects listed in Table 3 have the potential to have cumulative effects on harbour porpoise with regards to preventing their use of significant parts of the site (disturbance/displacement).

Without mitigation there could be adverse effects on harbour porpoise in the SNS SAC. However, the SNS SAC Development Co-ordination Forum (DCF) provides a coordinated approach whereby the permits and consents issued to operators include conditions where the developers are committed to working together to not exceed the daily and seasonal thresholds. If it is estimated that the thresholds are to be exceeded, then no work can be undertaken. Ithaca are part of this forum and have committed to participating and coordinating with other operators to meet the forum's goal.

Appropriate Assessment

Pressures scoped into the In-combination Assessment

A further assessment has been undertaken to understand whether the impacts from other plans or projects could act in-combination with those of the proposed operations and cause an adverse effect on the site integrity.

Site: Southern North Sea SAC

Features: Harbour porpoise (*Phocoena phocoena*)

Pressures: Underwater noise (impulsive: conductor driving-based)

Given the scale of the operation and its location (within the 500 m zone of the Cygnus Alpha Wellhead platform) and the distance to the onset of permanent threshold shift (29 m) it is considered that the risk of killing or injuring harbour porpoise (directly or indirectly) is very low and the applicant has sufficient control measures are in place to prevent it. Therefore, it is not considered further in the appropriate assessment.

There is no impact pathway to significantly damaging relevant habitats or significantly reducing the availability of prey from impulsive underwater noise arising from conductor driving and it is therefore not considered further in this appropriate assessment.



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The risk of other projects preventing the use of significant parts of the site (disturbance/displacement) by harbour porpoise have been summarised in Table 3.

The seasonal contributions to prevent breaching the 10% threshold will be managed by the 2026 DCF SIMOPS meetings such that the threshold is not exceeded at the end of the season.

There is some uncertainty regarding what the average seasonal disturbance will be. However, there is confidence that this figure will be below 10%, because even using the worst-case scenarios for seasonal disturbance the average would be 2.43% (calculated from the conservatively estimated duration of each activity and daily disturbance percentage). To provide extra security the seasonal average disturbance figure will be calculated and monitored as part of the live cross-sector SIMOPS coordination process designed to ensure operations remain within the recommended disturbance thresholds.

In terms of daily disturbance, it is clear that other impulsive noise-generating operations may take place concurrently with the proposed operations. Currently, daily contributions (which may not necessarily occur in the same day in the SNS SAC) are as follows:

Table 5. Worst case daily disturbance scenario. Blue highlighted entry denotes the proposed operations.

Activity	Daily Disturbance Percentage (%)
East Anglia Three – Monopiling (Abated)	7.55
Perenco – Conductor Piling	2.61
Hornsea Three – Monopiling (Abated)	0.56
NEP Expansion – Geophysical Survey (Sub-Bottom Profiling)	2.40
NEP Expansion – Seismic Survey	2.96
NEP Expansion – Vertical Seismic Profiling	2.96
NEP Phase 1 – UXO Clearance (HO)	7.21
NEP Phase 1 – Vertical Seismic Profiling	1.66
Norfolk Vanguard West – UXO Clearance (LO)	3.47
Eastern Greenlink 2 – UXO Clearance (HO)	0.01
NEP Phase 1 – UXO Clearance (LO)	0.37
Hornsea Three – UXO Clearance (LO)	0.29
Ithaca (Cygnus) – Conductor Pile Driving of the 44/12a Slot 1 Well	0.29



To prevent breaching the 20% threshold, the daily contributions will be managed by the 2026 DCF SIMOPS meetings, such that the threshold will not be exceeded at any given day of the summer season. Ithaca will have a condition on their screening directions such that this threshold is not exceeded.

Conclusion: Impact In-combination		
Pressure	Feature	Is an adverse effect possible
Underwater noise (impulsive: conductor driving-based)	Harbour porpoise (<i>Phocoena phocoena</i>)	No, provided the mitigation measures outlined are employed.

Conclusion of Habitats Regulations Assessment

An assessment has been undertaken to determine whether the conductor driving operations at Cygnus could significantly impact the conservation objectives of any site within the UK National Site Network. The likelihood of a significant effect on the conservation objectives of the following site and features could not be ruled out:

Southern North Sea SAC – Harbour porpoise (*Phocoena phocoena*)

An appropriate assessment was undertaken to ascertain whether the project could adversely affect the site’s integrity considering its conservation objectives:

Conservation Objectives:

1. Harbour porpoise is a viable component of the site;
2. There is no significant disturbance of the species; and
3. The condition of supporting habitats and processes, and the availability of prey is maintained.

The appropriate assessment has determined that the project will have some effect on the SAC. However, it has been concluded that any effects will not be significant provided the appropriate mitigation measures are taken. These will be conditions in the screening directions to be issued to Ithaca.

The Secretary of State, therefore, concludes that the proposed project will not adversely affect the integrity of the SAC, either alone or in-combination with other plans and projects.



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Annex

Application documents

- DR/2628/0

Statutory Nature Conservation Body (SNCB) Consultation

JNCC comments (received 23rd February 2026)

Headline advice:

JNCC does not object to this application on marine nature conservation grounds.

Dogger Bank SAC

JNCC do not agree with the conclusion on seabed disturbance in Table 2 that states “*There is high confidence that the sandbank feature and its benthic assembly have high recoverability and are resilient to physical disturbance.*”. Dogger Bank is a sandy mound type sandbank, formed by glacial processes and shaped by the Dogger Bank Formation, a geological formation deposited during the last glacial period (Cameron et al., 1992). We would not expect large scale topography or the underlying immobile substrates of the relict sandbank to recover, should they be physically impacted, as is the case with the proposed piling of the 30” conductor to 50m below the mudline. The sandbank communities, however, are capable of recovering from impacts but this will be dependent on a number of environmental and anthropogenic factors.

OPRED response

To expand on the item of disagreement flagged by the JNCC on the conclusion on seabed disturbance in Table 2, please note that the applicant has an obligation, at the time of decommissioning, to cut the conductor to a depth of 3 metres below the seabed, which will allow the surrounding sediment to cover this area of disturbance and facilitate the restoration of the seabed through natural processes.

References

JNCC (2010). Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise.

JNCC (2020). Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs.

JNCC (2025). Updated Effective Deterrent Ranges (EDRs) for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise Special Areas of Conservation (England, Wales & Northern Ireland).