

## **Appendix 7**

### **Ecology**

#### **Proposal**

The Environment Statement assesses the potential for the project to effect sensitive habitats and species of wildlife value. It does this by firstly establishing which habitats and species of value are present within the zone of influence of the Project. An assessment is then undertaken to determine whether there are any pathways of impact upon the valued habitats and species.

The assessment has established which habitats and species of value are present in the zone of influence of the proposal and then considered whether there are any pathways of impact on the valued habits and species. The assessment identifies that the site is located in an intensively managed landscape adjacent to a main road and which affects the quality of habitats present on site and influences the species that the site may support. The site is not located within close proximity to any protected nature conservation sites although the wider agricultural landscape is of value to wintering birds. A desk based data collation exercise has been carried out along with field surveys, an extended Phase 1 Habitat Survey, badger surveys, water vole surveys, bat activity surveys, amphibian survey, an ornithological site assessment and breeding bird surveys.

The ecological receptors, of nature conservation value, identified within the zone of influence of the main site as part of a Phase 1 Habitat Survey included; hedgerows, bats, breeding birds, wintering birds and brown hare. The ecological receptors, of nature conservation value, identified within the zone of influence of the array sites included; wintering birds connected to Lytham Moss BHS and Morecambe Bay SPA and the Ribble and Alt Estuary SPA and ground nesting breeding birds. The routes of potential impact identified included:

- Loss of habitat.
- Disturbance due to increased noise levels, vehicle and personnel movements (visual) and increased light levels.
- Alteration of bat behaviour due to heat emitted by the flare stack.
- Accidental injury or killing of brown hare

A range of mitigation measures and compensation measures are proposed to be adopted to either reduce the level of impact so that it is no longer significant or provide alternative habitat to ensure that the local population is not significantly impacted by the Project. These measures would be presented within a Biodiversity Mitigation Strategy (BMS).

**Policy****Strategic Policy****European Policy**

EU Habitats Directive

**Planning Policy****National Planning Policy Framework (NPPF)**

Paragraphs 109-112	Conserving and Enhancing the Natural Environment
Paragraphs 118-125	Conserve and Enhance Biodiversity

**National Planning Policy Guidance (NPPG)**

Natural Environment	Protect biodiversity
Noise	Manage noise impacts

**Joint Lancashire Minerals and Waste Development Framework Core Strategy Development Plan documents (LMWDF)**

Policy CS1	Safeguarding Lancashire's Mineral Resources
Policy CS5	Achieving Sustainable Minerals Production

**Joint Lancashire Minerals and Waste Local Plan – Site Allocation and Development Management Policies – Part One (LMWLP)**

Policy NPPF 1	Presumption in favour of sustainable development
Policy DM2	Development Management

**Fylde Borough Local Plan**

Policy EP12	Conservation of Trees and Woodland
Policy EP15	European Nature Conservation Sites
Policy EP16	National Nature Reserves
Policy EP17	Biological Heritage Sites
Policy EP23	Pollution of Surface Water
Policy EP24	Pollution of Ground Water
Policy EP26	Air Pollution
Policy EP27	Noise Pollution
Policy EP28	Light Pollution

**Consultee comments and representations**

**Natural England:** No objection. An initial objection was made due to the need for further information to be supplied to the planning authority to check the likelihood for significant effects in accordance with the Habitats Regulations. Further information was required to address impacts on air quality, Special Protection Area (SPA) birds, land use and cumulative effects.

Following the receipt of additional information from the applicant, Natural England concluded that the specific issues they had raised had been addressed and therefore withdrew their objection.

Natural England has also confirmed that points raised by Friends of the Earth relating to matters within their remit have been resolved with the applicant such that Natural England withdrew its objection.

**LCC County Ecology Service:** These comments address impacts on biodiversity with the exception of European sites and their qualifying features (wintering birds). European site issues have been addressed by Natural England. In general, the application area appears to be of relatively limited biodiversity value, comprising improved agricultural land with few features of any significant biodiversity value. Whilst there appear to be few if any significant biodiversity constraints, the development (construction and operation) would impact on features (habitats) of biodiversity value including hedgerows, and on the habitat of protected and priority species (including bats, birds, amphibians and mammals). Mitigation and compensation would be needed to be secured as part of any planning approval for this site. Mitigation and compensation for impacts upon biodiversity relating to wintering birds, and conditions requiring a biodiversity mitigation strategy and a revised ecological mitigation strategy (landscaping, habitat creation and enhancement) should be imposed.

Initially, further surveys were required to establish the presence or absence of great crested newts. The further surveys have been submitted and no evidence of great crested newts has been detected within the zone of influence of the proposed development; no impacts on this species or its habitat are predicted and therefore there is no requirement for mitigation or compensation to be secured by planning condition.

**RSPB** - Concern about the lack of data and therefore it is difficult to conclude that there would definitely not be an impact on the three SPAs (Ribble & Alt Estuaries, Martin Mere and Morecambe Bay) through impacts on functionally-linked land. Winter bird surveys for the area would elucidate the issue. The RSPB believe that "the regulatory regime for fracking is not fit for purpose, that such a new and untested technology in the UK should be approached with far more caution and that the case has not been made for encouraging a large scale fracking industry within our legally binding climate change limits."

**Wildlife Trust** –The Environmental Statement (ES) does not take into account fungi or lichens, the bird surveys were carried out over one season only and may not represent a true reflection of the impact of the development over time. Concern that the ES and site survey does not include road side verges, wildlife corridors etc in accordance with British Standards Institute Code of Practice Biodiversity Code of Practice for planning and development. Concern is raised over the competence of the author of the ES. The application does not meet the aims of the NPPF in particular paragraphs 17, 19 and 165 of the NPPF. An appropriate landscape/ ecological management plan has not been submitted and there is the need for a legal agreement to safeguard such arrangements. A construction environmental

Management Plan (CEMP) is required. The site has the potential to provide net gains in a number of areas of biodiversity. There is general concern about the regulatory framework associated with Fracking.

## Representations

**Friends of the Earth:** has objected to the proposal and further information for a number of reasons including impacts on ecology and biodiversity. The reasons for objecting are summarised as follows:

- Potential adverse impacts on the migratory path for wintering birds utilising the Morecambe Bay and Ribble Estuary Ramsar/ SPA sites.
- Impacts of surface overflow draining into Carr Bridge Brook and watercourses connected to the Ribble Estuary.
- Impacts on internationally designated sites, Morecambe Bay SPA, Ribble and Alt Estuaries SPA and Liverpool Bay SPA and Marton Mere SSSI.
- Impacts on protected and notable species.
- Impacts on SPA qualifying bird species and wintering birds.
- Impacts on the functional link with the Ribble and Alt Estuaries SPA/Ramsar, require that a full Habitat Regulation Assessment must be carried out.
- Significant loss of 2.6ha of habitat and disturbance to breeding and wintering birds, bats and brown hare.
- Adverse impacts of loss of habitat and disturbance to protected species are not sufficiently mitigated.
- Impacts of the flare (noise, heat, emissions) and 24hour lighting on wildlife
- The applicant has assessed cumulative impact of development as significant at the international level but the mitigation measures proposed are inadequate
- There is no Biodiversity Mitigation Strategy.
- The use of conditions would be inadequate as the applicant has disregarded conditions at other sites.
- A mitigation measure to not construct during bird breeding or wintering birds season does not reflect the construction timetable.
- Mitigation measures for wintering birds are minimal and incomplete as they do not address the impacts from the flare or lighting and available habitat.
- The applicant conclusion that significant impacts will become not significant after mitigation is contested.

Representations objecting to the proposal have made reference to the unacceptable impacts on ecology and biodiversity and which are summarised as follows:

- Contamination of nearby Carr Bridge Brook could result in pollution of the Ribble Estuary SSSI site an internationally important site for wildlife including wintering wildfowl and animals that use the watercourses.
- Poses a threat to wildlife sites including Ribble Estuary SSSI, Wyre Estuary SSSI, Lytham Moss BHS, RSPB sites including Marton Mere.
- Potential ecological disaster.
- The RSPB report says that shale gas will damage biodiversity, by salinization of soils and surface water and fragmentation of forests, creating shale gas landscapes.

- Adverse effect on local ecology and biodiversity, including death of and disturbance to wildlife and damage to habitats.
- Protected species could be threatened.
- Impacts from well operation 24hours a day, 7 days a week.
- Impacts from flare burn off.
- Impacts from noise and lighting pollution to animals e.g. lighting and bats.
- Impact on brown hare, foxes, rabbits, frogs, toads, dragonflies, shrews, voles, weasels, stoats, hedgehogs.
- Impact on wildlife corridors/feeding grounds for wintering wildfowl, migratory birds, local birds, skylarks, kestrels, Canada goose, buzzards, barn owls, tawny owls, woodpeckers, Martin Mere birds, pink footed geese, starlings
- Pollinating insects could be driven away.
- Have ponds been checked for great crested newts?
- Impact of stress to the horses at the World Horse Welfare and Rehabilitation Centre (Penny Farm). The centre is visited by children and elderly people.
- Impact on trees and woodlands from vehicle pollution.
- Proposals are contrary to EU, UN, NPPF and Policy EP15 policy guidance, as the proposal will cause environmental harm.
- Ecological surveys are incomplete as per a report by an independent ecologist. Survey data limitations relating to the bat information, reptiles, water vole, brown hare) and their habitat during construction and operation of the development.
- Prior to the commencement of works, a revised Ecological Mitigation Strategy (landscaping, habitat creation and enhancement) shall be submitted for approval in writing and subsequent implementation in full. The Strategy shall provide details of the creation and enhancement of habitats to offset hedgerow losses and to compensate for impacts on the habitat of protected and priority species.
- Humber Wood and the Plumpton Lane/A583 TPO tree are not included in the assessment.

## **Assessment**

The County Council's Ecologist has assessed the proposal.

It is concluded that the application area appears to be of relatively limited biodiversity value, comprising improved agricultural land with few features of any significant biodiversity value. Whilst there appear to be few if any significant biodiversity constraints, the development (construction and operation) will impact on features (habitats) of biodiversity value including hedgerows, and on the habitat of protected and priority species (including bats, birds, amphibians and mammals). Mitigation and compensation will therefore need to be secured as part of any planning approval for this site.

Natural England submitted an initial objection due to the need for further information to be supplied to the planning authority to check the likelihood for significant effects in accordance with the Habitats Regulations. Further information was required to address impacts on air quality, Special Protection Area (SPA) birds, land use and cumulative effects.

Following the receipt of additional information from the applicant, Natural England concluded that the specific issues they had raised had been addressed and therefore withdrew their objection.

Natural England has also confirmed that points raised by Friends of the Earth relating to matters within their remit have been resolved with the applicant such that Natural England withdrew its objection.

#### Red and Amber list birds

A concern has been expressed about certain species on the Royal Society of Protection of Birds (RSPB) Red and Amber list, with the suggestion that a number of species on this list are to be found at or around the main site. Only grey wagtail and mistle thrush are referenced in the representation. It is claimed that one of these birds has nested at Foxwood Chase in November, which is about 300m from the site. It is not clear whether the reference is to grey wagtail or mistle thrush. Grey wagtail is virtually absent from the west of County during the breeding season, favouring breeding sites near water especially streams and rivers where the surface is broken by pebbles and stones. Mistle thrush is a widespread breeding bird in Lancashire.

In any case, the predicted noise levels (with mitigation) at Foxwood Chase will be within the standards of the NPPF (PPG) (42dB at night and 53dB in the day). The proposals would therefore not be expected to result in any significant impacts on birds at Foxwood Chase.

A concern has been expressed that several Red and Amber (R&A) list species have only been referred to at a high level in the ES. The presence of species in the wider area is not necessarily relevant to the assessment of impacts. In this case, further consideration of house sparrow, starling and house martin would not be necessary since the application area (and zone of influence) does not apparently provide nesting habitat for these species (primarily associated with buildings and structures) and does not appear to provide any significant foraging resource for such species. The proposed Biodiversity Mitigation Strategy will in fact enhance foraging habitat for these species.

Concern is expressed that parts of the Environment Statement (ES) note suitable breeding habitat for other R&A List birds (e.g.: skylark, linnet, barn owl) but no further assessment is apparent. It should be noted that the presence of potentially suitable habitat does not necessarily imply occupied nest sites or indicate successful nesting. The ES does not state that there is suitable breeding habitat for barn owls.

Moreover, the ES does address potential impacts on skylark and linnet as both species were recorded during the breeding bird survey. Skylark require vegetation heights of between 20-50cm for breeding, and have been lost from a lot of lowland sites as a result of changes in cropping (e.g. from spring sown to autumn sown cereals); close grazed pasture does not provide nesting opportunities and silage fields may be suitable early in the season but are unlikely to remain suitable long enough for successful nesting.

Linnet typically uses scrub, gorse and hedgerow habitats for nesting; the proposals will result in the loss of some such habitats and will render others less suitable through disturbance, but the proposed Biodiversity Mitigation Strategy will offset these impacts in the longer-term.

It is claimed that some species are included in survey data, but were not spotted at or around the sites on the one or two occasions when surveys were carried out (e.g.: song thrush). This appears to be a criticism of the survey. The breeding bird survey appears adequate to inform the assessment of impacts (a scoping visit and two breeding bird surveys, as was carried out, is standard).

Song thrush is widely distributed through Lancashire, associated with woodlands, hedgerows, parks and gardens. It seems highly unlikely that the application area (improved agricultural land) would support good populations of snails (unlike for example residential gardens) and therefore the absence of this species as a breeding or even foraging species during breeding bird surveys is hardly remarkable.

It is claimed that further assessment is required because local residents' data indicates that other species are to be found at or around the main site.

The claims (and the records) focus in particular at Foxwood Chase, i.e. 300 - 400m from the main site, and the data is not therefore representative of the application area. Whilst there may be records of birds in this area, their presence in the wider area does not necessarily imply that the proposed development would result in any significant impact.

There is concern that Natural England may not have been presented with a rounded assessment of impacts on nature on which to base their withdrawal of objection. Natural England do not routinely comment on impacts on protected or priority species arising from development proposals. It therefore seems highly unlikely that the perceived flaws in the assessment referred to would have any bearing on Natural England's comments.

Reference is made in the objections to the Habitats Regulations and to case law pertaining to Habitats Regulations matters. The red and amber list species of bird referred are not qualifying features of European sites in this area, and the Habitats Regulations do not therefore apply. In any case adequate assessment of these species was undertaken.

There will be no significant impacts on red and amber list breeding birds because the applicant has carried out an adequate ecological assessment and has considered impacts on such species. The application area (and zone of influence) supports a limited number of bird species which will be affected to some degree by the proposals. Impacts cannot be entirely avoided, so the applicant proposes mitigation and compensation, which is entirely appropriate and is an approach endorsed by the NPPF.

Mention is made of a number of other red and amber list species:

Yellow wagtails. This is a summer visitor to the UK, breeding in arable farmland, wet pastures and upland hay meadows. According to the Lancashire Atlas of Breeding and Wintering Birds, Lancashire is close to the edge of the species range, and this is likely to account for observed declines; its range is now almost entirely confined to farmland south of the Ribble, with the exception of the Upper Lune. Therefore this species is unlikely to be present/ significantly affected.

Tree sparrow. This is a species of hedgerow and woodland edges, whose population is often artificially enhanced by nest boxes and winter feeding schemes. It can be difficult to detect, but is a colonial breeder; no signs of breeding were detected.

Corn bunting. In summer this is a species of open farmland; in winter on stubbles, root crops, weedy fields and cattle yards. According to the Atlas, in the lowlands of the west it is concentrated in the south-west mosslands north of Ribble and in north Fylde; the current population estimate is 210 individuals, but a limited number of sites account for most of these birds. There is no evidence to suggest it is present at this site.

Curlew. This is an estuary bird, breeding in greatest numbers in uplands in rough grass, moorland and bog; in Lancashire breeding in the lowlands has declined to low numbers only in some areas of West Lancashire, Chorley and the Fylde. The application area does not appear to provide suitable nesting habitat.

Swallow, house martin and swift. Breed in buildings; forage where there is a ready supply of small insects. Any loss of insects as a result of the proposals would be offset by habitat enhancements.

Meadow pipit. According to the Atlas, the current range is mostly uplands and coastal marshes and dunes, with small remnants of previous populations in agricultural lowlands hanging on in St Helens and West Lancashire, but elsewhere in the County (including the lowlands of Fylde) it is absent as a breeding bird.

Reed bunting. This is a breeding bird of farmland and wetland, common in the west of Lancashire, with main breeding sites at places such as Martin Mere and Leighton Moss. There is no reason to believe it breeds here, or in large numbers, or would be significantly adversely affected.

Such species therefore appear largely irrelevant to the assessment of impacts at this site.

### Noise assessment

Concern is expressed about the validity of the noise assessment carried out by the applicant. It is claimed the assessment is flawed, and therefore the baseline noise levels and steps proposed to mitigate the impacts on wintering birds are also questionable.



The County Council appointed specialist noise consultants (Jacobs) to review the applicant's noise assessment, and to also undertake some background monitoring at night time. Jacobs confirm that the noise calculations were undertaken in accordance with established international standards.

A concern has been expressed about use the assessment methodology. The applicant has used BS5228. However, it is considered that the applicant has not employed the most appropriate noise standards against which to compare the noise predictions. BS5228 contains more relaxed noise standards than the National Planning Policy Framework – Planning Practice Guidance (NPPF-PPG). The applicant was therefore informed that the County Council will use the more stringent standards contained in the NPPF-PPG when making its assessment.

As a result of this a number of possible noise reduction measures were suggested, and the applicant has stated that recommended noise limits in the NPPF -PPG could be achieved. This commitment to meeting the standards in the NPPF-PPG, and the measures to achieve those standards was contained in further information submitted by the applicant and which was the subject of a further consultation (Regulation 22).

The applicant has confirmed that these levels are the lowest that can be achieved at the nearest properties (Staining Wood Cottages) without resulting in onerous burdens on operations, in accordance with the NPPF-PPG. The applicant has also confirmed that night time levels at all other noise sensitive properties will be below this level. The mitigation measures include:

- Installing enclosures to the shale shakers and generators.
- Fitting noise absorbent materials to the housing containing the mud pumps.
- Fitting rubber cushioning to drill pipe cassette to minimise impulsive noise from handling lengths of drill pipe.
- Installing 4m acoustic hoarding around the site.
- 7m high sound barrier around the main rig and hydraulic power unit
- Sound absorption in enclosures to drilling rig shale shakers (doors closed)
- Sound absorption in enclosures to generators, including louvres
- Interventions to the hydraulic power unit (e.g. acoustic louvres); attenuators to generator exhausts, etc.

The day time noise prediction from the hydraulic fracturing phase is 53dB at Staining Wood Cottages. Hydraulic fracturing is the loudest phase of the project. Noise from hydraulic fracturing would occur for three hours per day, for 30 to 45 days over a two month period. There will be 4 of these two month periods over the 5.5 year lifetime of the project. Each of these two month periods for fracturing will be interspersed by a three month period of drilling. The maximum noise from drilling is 39dB, which is within national standards.

The 53dB level accounts for the applicant's mitigation which was submitted after the ES and was consulted upon as part of the further consultation. 53dB is just below the national standard.

The applicant has also submitted a Habitat Regulations Assessment (HRA) Shadow Screening Opinion. The noise mitigation in this assessment prevents a significant

effect on the Ribble and Alt Estuary Special Protection Area (SPA). This information and noise mitigation led to Natural England withdrawing its objection.

#### Fields to the south of the site

There is concern from one objector that the applicant has failed to assess fields to the south of the main site for potential for wintering birds. However, Appendix F of the HRA Shadow Screening Opinion (SSO) refers to the location of monitoring array number 1388329 (in the field to the south of the site) as a 'track at the side of a large open winter wheat field with high potential for use by wintering birds and regularly overflown'.

Appendix G does not show the array being avoided in winter (as part of the installation of the monitoring array) as part of the assessment of fields to the south of the site.

Not every field that appears potentially suitable to support wintering birds will be used by wintering birds, and even where fields are used they may not be used on a regular basis and/ or by large numbers of birds. Available information does not suggest that the array installation here in winter would result in a significant adverse effect on wintering birds or the SPA.

There is a view that the fields to the south of the site have allegedly been omitted from the assessment because it has been assumed that noise from the road would prove too much of a disturbance. However, the response of birds to traffic has been documented. For example, Madsen (1985) reported that roads with traffic volumes greater than 20 cars per day depressed goose utilization in a range of up to 500m, and the distance from roads where geese feed without interruption is likely to be approximately 500m. The variable nature of traffic volume is irrelevant since the birds will be disturbed and displaced away from Preston New Road (PNR).

The noise attenuation maps in the HRA SSO suggest that at the distance from PNR at which wintering birds might be expected to occur, if present, noise levels will have dissipated sufficiently not to result in significant effects. Figure 5 'water bird response to construction disturbance' in the HRA SSO report helps to illustrate this point.

The Lancashire Wildlife Trust has raised a number of concerns and questions.

A concern has been raised that the applicant did not assess lower plants (e.g. fungi). The initial assessment and subsequent surveys did not assess the habitat as significant and did not trigger the need for lower plant surveys. The site is largely characterised as improved agricultural grassland.

A concern is expressed that the ES has not considered the location of the site in respect of wildlife corridors. The ES considers ecological networks and connectivity in relation to habitat loss (ES: chapter 10, section 10.7.2) and species-specific impacts of this loss. For example, it considers how the development could affect bats migrating along linear features (Para 261 to 264), amphibians migrating across pasture and hedgerows (Para 266), movements of wintering birds between the SPAs and BHS sites (page 236).

The Trust is concerned that the ES does not include an Ecological Constraints and Opportunities Plan (ECOP). The Biodiversity Mitigation Strategy (BMS) for the site will follow the format set out in chapter 10, section 10.9.1 of the ES which provides an indication of the activities to be used to mitigate impacts arising from development, and to also enhance biodiversity in local area.

There is a concern the application does not meet the biodiversity/nature conservation requirements of the National Planning Policy Framework (NPPF, 2012) outlined in paragraphs 17, 109 and 165. See points above in relation to assessment of connectivity and the development of measures which mitigate and, where possible, enhance biodiversity in the locality of the site. Mitigation under the BMS will include the development of seed-rich strips for breeding birds which are currently absent from the landscape as the local area is managed for dairy production; the development of cover strips for hare, which are not currently present. The BMS will also incorporate detailed habitat creation and management activities.

The Trust is concerned that requirements 7, 9, 17, 109 and 118 of the NPPF, require there to be an enhancement of biodiversity instead of a net loss of biodiversity. The applicant says the mitigation measures presented within the ES will be included within the BMS. The detailed commitments to habitat creation and management to be included in the BMS will be developed with reference to the views of the County Council.

There is a concern the compensatory measures do not appear to have been timed so that biodiversity losses do not occur until such compensatory measures are in place and are likely to establish successfully. The timing for implementation of the mitigation measures will be prescribed within the BMS. These measures will commence as soon as possible following the grant of planning permission. The rate of establishment of these features will vary, but the BMS will be developed to ensure that a loss of biodiversity does not occur as a result of development. For example the establishment of seed crops will have a positive impact upon biodiversity during the year of establishment, as this resource is currently absent from the landscape, and will provide a range of passerine birds with additional food resource.

The Trust is concerned that whilst Rhododendron was recorded in the adjacent woodland, the ES does not identify areas where biosecurity measures are necessary to manage the risk of spreading pathogens or non-native invasive species. The applicant says these measures will be addressed in the BMS.

There is a concern the development does not appear to contribute towards biodiversity enhancement. Section 10.9.1 of the ES provides a summary of the scope and format of the proposed BMS which highlights those areas which will be used to mitigate the impacts of the development, and to also enhance the local area. The applicant says full details of these elements will be included within the BMS.

The Trust is concerned that the proposal does not consider how it could best contribute to delivering local biodiversity priorities. The applicant says the BMS will consider ways in which the project can best contribute to local biodiversity priorities (ES: section 10.9.1).

There is a concern all the proposals for the management of any particular species of flora and/or fauna during (and beyond) the period of development /operational activity are not in place. The BMS will include detailed measures for habitat creation and management to be implemented during and after the period of development (see ES: 10.9.1).

The Trust is concerned that an appropriate landscape and/or ecological management plan has not been submitted and approved. The BMS and Environmental Operating Standard (summarised in Appendix E of the ES) will ensure that all habitat creation and management activities are implemented, monitored and maintained.

There is a concern that all environmental consents have not been approved/licensed. All permits and licenses, including planning permission and attached conditions, will be included within the Environmental Operating Standard (EOS). This will provide a clear and transparent mechanism for managing the site and associated activities. Relevant environmental conditions and approvals will also form integral elements of the BMS and Ecology Control Plan, which will form part of the EOS, as set out in section 10.9.1 and Appendix E of the ES. The EOS and its constituent Control Plans (including the BMS) will be implemented following grant of planning permission to ensure compliance with all relevant conditions.

The Trust is concerned that all necessary practical measures to ensure that biodiversity features are protected during construction or development implementation have not been set out in a Construction Environmental Management Plan. Practical control measures will be included within the BMS. Measures included in this document will be included in the site's Environmental Management and Monitoring Plan (EMMP). The EMMP is described in the ES: Appendix E.

The Trust is concerned that sufficient resources have been allocated to protect biodiversity during construction. These elements will be included within the BMS to be prepared and agreed following grant of planning permission, and will form part of the EOS for the site. The EOS, and its constituent Control Plans (including the Ecology Control Plan) will be reviewed and updated at regular intervals and will comprise an auditable document that will, among other things, be used to demonstrate that the site is being managed in accordance with the mitigation measures set out in the ES.

The Trust says it is unclear whether or not sufficient resources have been allocated to conserve and enhance biodiversity through long-term management, ongoing surveillance and monitoring performance against targets. These elements will be included within the BMS.

The Trust says there is no commitment that, at the end of the monitoring period, the results will be used to complete a "final statement of losses and gains" arising from the development, which will identify the actual changes that have occurred, as opposed to what was predicted prior to the commencement of development. The applicant says that the EOS will be a live and auditable document. A final audit of

impacts and enhancements, against the baseline characteristics set out in Chapter 10 of the ES would be possible.

## **Conclusion**

The ecological receptors, of nature conservation value, identified within the zone of influence of the main site as part of a Phase 1 Habitat Survey included; hedgerows, bats, breeding birds, nesting birds wintering birds, brown hare and great crested newts. The following were identified as having the potential to be significant at the local scale.

- Loss of habitat.
- Disturbance due to the loss of bat foraging habitat from the activities and equipment present at the well pad.
- Loss terrestrial habitat for great crested newts and potential direct effects on them
- Disturbance and loss of habitat from brown hare.
- Potential disturbance and displacement of migratory species of birds in the vicinity of the array points.

These measures include the following:

- Replace hedgerow, trees and habitats,
- Measures to reduce the magnitude of lighting impacts on feeding bats
- Locate seismometer array points away from land unused by overwintering birds.
- Clearance of vegetation to occur outside of bird breeding season or after confirmation that there are no breeding birds using the vegetation.

This range of mitigation measures and compensation measures are to be adopted to either reduce the level of impact so that it is no longer significant or provide alternative habitat to ensure that the local population is not significantly impacted by the project. These measures will be presented within a Biodiversity Mitigation Strategy (BMS).

Following implementation of the mitigation measures, there will be no unacceptable impact on biodiversity as a result of the proposal.

It is therefore considered that the proposal would not have an unacceptable impact on ecology and would not be in conflict with the policies of the NPPF or the development plan policies.