



Offshore Wind Farms

EAST ANGLIA ONE NORTH

PINS Ref: EN010077

and

EAST ANGLIA TWO

PINS Ref: EN020078

Questions for the applicant in response to

HABITATS and BIODIVERSITY

by

SEAS (Suffolk Energy Action Solutions)

Unique Ref. No. EA1(N): 2002 444

Unique Ref. No. EA2: 2002 4496



SUFFOLK
ENERGY ACTION
SOLUTIONS

info@suffolkenergyactionsolutions.co.uk
www.suffolkenergyactionsolutions.co.uk

Summary

SEAS is concerned about:

- The impact of biodiversity fragmentation and loss across the development site
- Inaccurate and consequently meaningless application of the Biodiversity Metric 2019
- Lack of local detail and consideration on the impact of the project on European and National Statutory Protected Sites (SAC, SPA, SSSI, AONB)
- Wholly unrealistic estimates of the possibility of restoration of the destroyed ecology in woodland, river, sandlings heath, and ancient hedgerow
- Non-transparent management structure for unclear measures suggested to safeguard protected marine and benthic species
- Errors in planning on coastal design, based on inaccurate and incomplete research
- Scant examination by the applicant of wildlife areas, leading to a dismissal of their importance, and astonishing lacunae
- The superficial hydrological studies which miss the impacts on aquifers, water quality and chemistry on protected sites, particularly the Aldeburgh-Leiston SSSI and RSPB North Warren
- Inadequate appreciation of the complexity of ancient habitat in offering mitigation
- Lack of available land to commence mitigation
- Underestimation of time required to mitigate loss of habitat, hibernation areas and forage for red-listed species
- Lack of detail or awareness of how to preserve the ancient biome of internationally important SPA/SSSI
- Scant assessment of the impact of noise and lighting on bats, birds and rare insects
- The lack of commitment to assessing the overall impact on the important population of bats in the way of the cable corridor
- The loss of hibernation and forage sites for protected reptiles and mammals
- The loss of nesting habitat for protected migrating species
- The loss of river access and facilities to protected species
- The bisection and fragmentation of the coastal B-lines and IIA

This submission follows the basic structure of SEAS' first submission on ecological issues, as most concerns remain unaddressed by the applicant. However, it is revised to incorporate comments on the applicant's RRs up to 1 November 2020 (shown in text and references).



Sections

Introduction

Biodiversity Net Gain Metric

1 Marine, Benthic and Littoral

1.1 Re. Offshore Ornithology Cumulative and In-Combination Collision Risk

1.2 Re. SPR Reference: EA1N_EA2-DWF-ENV-REP-IBR-000913

Harm from underwater noise and shock

1.3 Re. Benthic Ecology

1.4 Re. Littoral

2 Terrestrial

2.1 B-lines and IIA

2.2 Coastal and Cliff

2.3 Hedgerows and Woodland

2.4 Bats

2.5 Reptiles

2.6 Badgers

2.7 The River Hundred

2.8 'Confirm that species remain absent' ? Local management structure missing

3 Conclusions

Annex - Plan of RSPB North Warren



Introduction

Biodiversity Net Gain Metric Summary

The Biodiversity Metric requires an account of :

- a) Habitat Distinctiveness (species richness, diverseness and rarity),
- b) Habitat Condition (lack of human interference driving habitat and species richness),
- c) Spatial Risk (ecological risk from removal of a habitat),
- d) Temporal Risk (the mismatch between loss of biodiversity and offset mitigation), and
- e) Delivery Risk

The specific terrestrial areas at risk from this development:

Grazed heathland - which will be removed

SPA/SSSI heathland - which will be removed

Coastal cliffs and heathland - which will be compromised and/or removed

Wetland and fen - which will be deprived of their water source and contaminated in unpredictable degrees

A vital river - which will be shuttered off for up to 100m

Riparian, rewilded woodland (upwards of 150 years in age) - a long stretch along the same river bank - which will be removed

Mature, broadleaf woods interconnected with the riverside wood of around 150 years old - which will be removed

Parkland - which will be removed

Ancient hedgerow - which will be removed

Ancient woodland (i.e. over 800 years old) - which is supposed to serve as mitigation in Friston but is being partly felled

Each of these requires its own, specific, careful analysis. (Dr Sarah Scott, National Biodiversity Advisor, DEFRA and EA, 'Biodiversity Net Gain', to *Suffolk Naturalists*, 2019)



1 Marine, Benthic and Littoral Ecology

1.1 Re. Offshore Ornithology Cumulative and In-Combination Collision Risk Update (EA1N_EA2-DWF-ENV-REP-IBR-001106)

1.1.1 SPR includes data from all its current responses to all current applications. This has the effect of muddying the local waters, although it gives the impression of acknowledging a cumulative effect.

1.1.2 Local red-listed populations include those which nest, live, migrate, overwinter or oversummer at or in the vicinity of the proposed landfall at Thorpeness. These are Red-throated Diver, Tern, and Little Tern, plus Kittiwake, which are nesting closer than 1000 metres from the proposed landfall, and which also nest at Lowestoft, which is within 19 miles of EA2. Nonetheless, Gannet and Cormorant (mentioned for SPR's other applications) are also found in Kessingland (EA2) and use Thorpeness cliffs (EA1N) in their migration behaviour in large numbers (1).

1.Q.1. Will the applicant consult local experts on these important populations? These include the Suffolk Naturalists Society, and Wardens, Thorpeness.

1.1.3 SPR suggests it will alter the height of the turbine blades to lower collision mortality. The plan is based on largely theoretical modelling.

1.Q.2. Can the applicant produce adequate evidence, rather than data-set dependent modelling, that this will work?

1.1.4 Studies now concur that painting one of three rotor blades black helps counter the problem of avian mortality. Birds experience 'motion smear' in their forward vision, which seems to prevent birds perceiving obstructions ahead. Painting one of three blades a dark colour is shown to reduce avian mortality by 70%, but the process is resource-demanding unless the blades are painted before construction(2).

1.Q.3. Will SPR act on this evidence to protect endangered sea birds of the SPA?

1.2 Re. SPR Reference: EA1N_EA2-DWF-ENV-REP-IBR-000913 Harm to marine mammals from underwater noise and shock

1.2.1 The applicant acknowledges that it cannot guarantee absence of harm in piling and UXO.

1.2.2 There is currently no overall regulatory mechanism for all projects to avoid in-combination underwater noise impacts.

¹Suffolk Naturalists, HABITATS and BIODIVERSITY by SEAS (Suffolk Energy Action Solutions) Ref. No. EA1(N): 2002 4494; Ref. No. EA2: 2002 4496

²Roel May et al., 'Paint it black: efficacy of increased wind turbine rotor blade visibility to reduce avian fatalities', *Ecology and Evolution*, Vol. 10, 16, July 2020 doi.org/10.1002/ece3.6592



1.Q.4. In the absence of a regulatory mechanism, how will the applicant guarantee best practice and avoid in-combination events?

1.Q.5. In the event of error and ‘worst-case scenario’, what mitigation and repair measures is the applicant able to deploy?

1.Q.6. Is it not preferable to wait until a safe, regulatory mechanism has been agreed, as these projects have such grave in-combination risks to the environment?

1.3 SPR Reference: EA1N_EA2-DWF-ENV-REP-IBR-000880 Benthic Ecology

1.3.1 Discussion with MMO shows concern about the spread of non-native, invasive species and on the monitoring of benthic species. This includes determining the locations of Sabellaria reefs (whose resilience is very low after repeated in-combination disturbance) (3), and intends to protect the spawning of marine species like Herring and Sand Eels from disturbance, sediment pollution and noise pollution.

1.Q.7. What is the applicant’s active management structure that will ensure accurate monitoring of the water quality and species behaviour — including spawning creatures that depend on the benthic ecology?

1.Q.8. How will implementation of monitoring and feedback proceed? What mechanisms will the applicant put in place?

1.Q.9. How will adverse impacts be reversed?

1.Q.10. Is it not preferable to minimise the damage to the sea bed at construction and demolition by using a floating wind farm design?(4)

Biodiversity Metrics at risk:

- a) Habitat Distinctiveness (species richness, diverseness and rarity),
- b) Habitat Condition (lack of human interference driving habitat and species richness),
- c) Spatial (ecological risk from removal of a habitat).
- d) Temporal
- e) Delivery (no mechanisms in place for delivery)

³ Tillin et al., ‘Sabellaria alveolata reefs’, *Marine Life Information Network*, 2020

⁴ Paul Brown, ‘Floating wind farms, the power source of the future’, *The Guardian* 4-8-2020

1.4 Littoral SPR Reference: EA1N_EA2-DWF-ENV-REP-IBR-001085_0012

1.4.1 The project will stretch from the Alde Estuary to Lowestoft, and make landfall for cables to the north of Thorpeness. This impacts 75% of the Suffolk Coast and Heaths AONB and Suffolk Heritage Coast(5).

1.4.2 This whole coast is eroding and at risk from storms and sea level rise. The cliffs at Thorpeness are friable – the latest recorded death they caused by collapse was of a dog walker on the beach in 2017(6). The first image shows the tunnels of Sand Martins in Thorpeness cliff; the second shows the cliff, collapsed, on 14th November 2020.



1.Q.11. How will drilling through the cliffs not contribute to the rapid erosion here, and what measures can be taken to protect any exposed cabling in the event of collapse?

1.4.3 The cliffs are home to many protected birds, like Yellowhammer and Sand Martin(7). The headland formed by the Ness is where seasonal bird counts are made and migrations recorded by the county recorders(8).

1.4.4 The littoral is part of the SAC and SPA.

1.4.5 The applicant assures us it will provide certain mitigated measures for selected species. However, these measures, to be effective, need to be in place before work begins.

⁵ SCC and Suffolk AONB, 'Seascape sensitivity to offshore windfarms', White Consultants, October 2020

⁶ *East Anglian Daily Times*, 'Disintegrating sea defences spark safety fears', 23 May 2019

⁷ Wardens, situated on the Ness Headland, maintains a list of species observed there. Wardens Trust, Wardens Hall, Sizewell IP16 4UB

⁸ Suffolk Naturalists, *Bird Report*, Vol.64, Vol. 68.



1.Q.12. How will SPR mitigate in time the disruption to the littoral from road traffic, air traffic, noise, trenching, light and pollution so that the environment remains favourable to the threatened species that abound here?

1.Q.13. What evidence can the applicant provide that their proposed mitigation can achieve its aim?

1.Q.14. How will the applicant be able to reverse adverse and in-combination events, and how quickly?

1.Q.15. Aquifers in this region are very close to the surface. What provision has the applicant made to locate and protect any submarine aquifer outlets in the landfall drilling area?

1.Q.16. What provision is the applicant making to protect licensed users of aquifers from disturbance and pollution in this region?(9)

1.Q.17. What mechanisms exist for the applicant to correct the glaringly inadequate research pointed out in this regard? (10)

Biodiversity Metric checklist - risks still unaccounted for in the project:

- a) Habitat Distinctiveness (species richness, diverseness and rarity) - at grave risk
- b) Habitat Condition (lack of human interference driving habitat and species richness) - lost
- c) Spatial Risk (ecological risk from removal of a habitat) - grave risk
- d) Temporal Risk (the mismatch between loss of biodiversity and offset mitigation) - impossible to achieve
- e) Delivery Risk - lack of accurate detail in fundamental preparation bodes ill for the smooth running of the project

⁹ Tessa Wojtczak, EA1N: IP 20024031. / AFP 132 EA2 : iP 20024032/ AFP 0134.

¹⁰ *ibid.*



2. Terrestrial

2.1 B-lines and IIA

2.1.1 The Invertebrate Conservation Trust (Buglife), under the umbrella of Natural England, is working to restore connectivity to the fragmented habitat for invertebrates on which soil, pollination, and consequently 'higher' animals depend. The cable plans bisect one of the established 'B-lines' along the coast, then bisects another along its length, which connects the sandy coast to the inland clay soils. This area has also recently been designated IIA (Important Invertebrate Area).

2.1.2 Formally recorded, endangered, above-ground invertebrates of special interest in the cabling's path include the Lunar Yellow-Underwing Moth, the Norfolk Hawker, the Tree Bumble Bee, Large Red-Tailed Bumblebee, Clouded Yellow, Grayling, Glow worm, Wall, Essex Skipper, Garden Carpet, Cinnabar, and Silver-Studded Blue. (11) Underground, the biome contains even more invertebrates adapted to the unique area.

2.1.3 The risk posed by SPR's plans to the restoration of viable, connected, diverse populations is grave and contrary to National Biodiversity strategy.(12)

2.1.4 However, Chapter 22, Onshore Ecology, of SPR's Environmental Statement states that there is 'no evidence of suitable habitat to support significant populations of invertebrates' and that these species will not be considered further.(13)

This is plainly wrong.

2.Q.1. Will the applicant urgently consult the Invertebrate Conservation Trust (Buglife) for information and help on this important site?

2.Q.2. Again, what structures is the applicant establishing to assure us that potentially harmful omissions in planning, like this one, are eliminated? What mechanisms exist for the applicant to correct such inadequate research?

2.2 Coastal and cliff

2.2.1 Thorpeness cliffs record 508 species observed within 500 metres, including endangered bird species like Swift, Skylark, Sandmartin (which nest in the cliffs), Cetti's Warbler, Swallow, Crossbill, Nightingale, Turtle Dove, Barn Owl, Lapwing, Fieldfare, Redshank and Thrush. (14)

¹¹ National Biodiversity Network

¹² Biodiversity 2020: A strategy for England's wildlife and ecosystem services (DEFRA 2011)

¹³ APP-070-Chapter 22 5.3.8, para155

¹⁴ National Biodiversity Network

2.2.2 The Ness headland is used by Suffolk Naturalists to perform its seasonal counts of bird populations and migrations, and we have already mentioned the internationally important populations of sea birds there.(15)

2.2.3 The cable path drives straight through these crumbling cliffs and then through a European Union Special Protection Area (SPA) at Thorpeness/Sizewell.

2.2.4 Rare plants and fungi are at risk from the cable path: the very rare and internationally important Earthstar Geastrum Minimum was found at Sizewell in November 2014 and is a Suffolk Priority Species.(16) The applicant proposes no mitigation for fungi, or fungal networks.

2.2.5 Rare animals, including mammals, reptiles, amphibians, and birds are at risk from the cable path.(17) The applicant proposes no credible mitigation.

2.2.6 The applicant claims that Nightingale and Turtle Dove will survive the removal of habitat required by cable laying in one season. They add that the birds' habitat comprises scrubland with established shrubs, bramble and grasses — but a significant proportion of these will be removed. The British Trust for Ornithology's research suggests that the optimal habitat includes particular ages of coppiced woodland and a well-defined structure of scrubby thicket in which to set up their territories. Removing and opening up scrubland, as the cable-laying will do, will make the landscape too open for the secretive bird. It will take some years to restore scrub, and even longer to achieve anything like a canopy, as in the BTO's suggested and successful mitigation diagram below.(18)



2.2.7 Turtle Dove is Britain's fastest declining species. In the UK, Turtle Doves usually nest in tall, dense mature scrub or hedgerows, especially if they contain standard trees, thorny shrubs, tall hedgerow shrubs and climbers. Dense, thorny vegetation provides the birds with a safe place to build their nest. Good Turtle Dove

¹⁵ Suffolk Naturalists, op.cit.

¹⁶ Suffolk Biodiversity Information Service

¹⁷ *ibid.*

¹⁸ British Trust for Ornithology, Species Focus: Nightingale, 2020



nesting habitat can take a long time to develop from scratch, so it's essential to protect what's there. Removing habitat is therefore a grave procedure and is not rapidly reversed.

2.2.8 The applicant notes that the baseline for this area was assessed within Chapter 23 of the ES (APP-071) as not providing optimal habitat for Nightjar and Woodlark. Yet, the BTO observes that these birds have started to colonise set-aside farmland, but that heathland and young tree plantations remain optimal for breeding⁽¹⁹⁾. It is therefore hard to accept the dismissal of the presence of a species by the applicant on the grounds of 'unsuitable' heath and grassland of the SPA and outside it.

2.2.9 Sandlings heathland is one of the rarest surviving habitats and Suffolk's heaths represent an important proportion of the world's sandlings. It takes around 300 years for a heathland to form. Even a grazed sandling heathland retains its character because of the unique strata of the podzol, above bands of particulates, atop iron pan.⁽²⁰⁾ The preferred, proposed, trenching will remove these centuries-old strata).

2.Q.3. Has the applicant identified measures to preserve the biome and structure of the threatened habitat while trenching, and therefore mitigate the loss of Habitat Distinctiveness?

2.Q.4. The mitigation strategies of planting shrubs and grasses proposed by SPR will take, it says, 5 years to complete. According to the Biodiversity Net Gain Metric, Temporal Risk adds to Delivery Risk. How will SPR protect the at-risk species during the slow regrowth it proposes, and still deliver net gain in biodiversity?

2.Q.5. Will these mitigation measures commence in time to provide alternative habitat?

2.2.10 The trenching of the SPA and SSSI and adjacent land impacts Habitat Distinctiveness, Spatial Risk (as it will remove, wholesale, an Ecological Habitat), Habitat Condition, and Temporal challenges (it will take many years to restore), plus Delivery Risk owing to the applicant's lack of detailed preparation, and therefore does not provide Biodiversity Net Gain.

2.3 Hedgerows and Woodlands

2.3.1 The cable path cuts through a European Union Special Protection Area (SPA), as we have seen, and removes mature hedgerow there, which is a significant Biodiversity Risk. This is shocking enough, but wildlife and special ecology is not confined to reserves.

¹⁹ 'Reproductive success of Woodlarks *Lullula arborea* in traditional and recently colonized habitats', British Trust for Ornithology, Bird Study, Volume 54

²⁰ Lee Chadwick, *In Search of Heathland*, Dobson 1982



2.3.2 Moving westwards from the sea, SPR proposes to remove around 11km of hedgerow, most of which appears on maps published in the 1800s. In Aldringham, SPR will grub up section CS19-CS20 of Hedgerow 20 beside PROW path E-106/065/0, and Hedgerow 21 alongside E-260/007/0 Fitches Wood, Aldringham.

2.3.3 SPR will fell areas of mature, broadleaf woodland and protected parkland on both sides of the River Hundred, which it will cut in two.

2.3.4 The riparian wood to the east of the river on Aldeburgh Road (B1122) is not recorded in the proposal. The trees in this rewilded, mature, broadleaf woodland are upwards of 150 years old and contain some older specimens in decay, which provide hollows for bees, birds and bats, and refuge for declining invertebrates like the Stag Beetle. The river bank passing through the wood is home to several struggling species of invertebrate, including the Glowworm.

2.Q.6. When will the applicant acknowledge the woodland east of the B1122 and provide a suitable plan for its preservation or restoration?

2.Q.7. When will the applicant assess the Biodiversity cost of felling the wilded, riparian woodland on the east of the B1122?

2.3.5 The applicant will then fell several more acres of protected parkland trees, by Raudsend (Aldringham Court Residential Home) and also its woodland, to the west of the B1122, on which 45 species of lichen, including *lecanora expallens*, have been recorded.⁽²¹⁾ Wildlife at present passes between the woods on both sides of the B1122, and uses both habitats as one. Hedgehogs, for instance, have been observed both crossing the road and as roadkill.⁽²²⁾

2.3.6 The Aldringham works destroy all 5 chances of achieving Biodiversity Net Gain:

- a) Habitat Distinctiveness (species richness, diverseness and rarity),
- b) Habitat Condition (lack of human interference driving habitat and species richness),
- c) Spatial Risk (ecological risk from removal of a habitat),
- d) Temporal Risk (the mismatch between loss of biodiversity and time to offset mitigation - in this instance, none is proposed), and
- e) Delivery Risk — there is no possible mitigation, as the same area has been selected for haul roads, and woods cannot be replanted atop cables, even if we had 150 years to wait. (23)

2.3.7 Two acres of Aldringham Wood (Fitches Wood) will be felled. This is an old bluebell wood, which supports breeding Nightingales, Turtle Doves, Hedgehogs and Lesser Stag Beetles (not recorded by SPR).

²¹ Source: BLS Lichen database

²² Author's observation.

²³ Sarah Scott, National Biodiversity Advisor, 'Biodiversity Net Gain', *Suffolk Naturalists*, 2019



2.Q.8. How can the applicant factor these habitat losses(2.3.5, 2.3.6) into its Biodiversity Metric if it has not assessed the area?

2.Q.9. Again, what structures is the applicant establishing to assure us that potentially harmful omissions like these in planning are eliminated? What mechanisms exist for the applicant to correct such inadequate research?

2.3.8 The cable corridor then turns southwards to continue across agricultural land but still skirting the wood's edge, towards Friston, thereby disturbing the important bat corridor used by the recorded Barbastelle, Brown Long-Eared Bat, Lesser Horseshoe Bat and Pipistrelle(24) from the B1122 to Billeaford Hall, and affecting the hunting grounds of the Barn Owl(25).

2.3.9 The southern end of the agricultural land's margins have been given over to pollinator strips and there is some restoration of hedges in progress, already extending the favourable environment for hedgerow creatures as well as removing pesticide treatments on the arable field. Several pairs of Skylark, Woodlark, and Hare now nest or forage there. The pollinator strips also provide supplies of Yellow-Necked Mice for the hunting owls, which include Barn Owl, Tawny, and Little Owl, plus prey for Buzzard, Hobby, Kestrel and Harrier. (26) The number of species recorded in this 1km radius is 11,610, from the edge of the fields to Billeaford Hall and Aldringham Woods.(27)

2.3.10 The removal of hedgerow continues between Knodishall and Friston, with the suggestion that Grove Wood can become a mitigation habitat. Grove Wood is already a Local Wildlife Site and Ancient Woodland. However, this year the Forestry Commission granted Felling Licences. Grove Wood can no longer be adequate mitigation habitat, if it ever was.

2.Q.10. How will the applicant factor this habitat loss into its Biodiversity Metric, since its mitigation for Friston relied on Grove Wood?

2.3.11 The function of agricultural land includes being dug up, and agricultural methods can quickly restore it to modern agricultural use. However, the ancient biome of woodland and hedgerow cannot be restored so easily, if ever.

2.3.12 "Just over half a hectare of one wood might not sound much but every inch of soil in an ancient woodland is precious. When you consider ancient woodland is irreplaceable, accounts for just 2.4% of land cover in the UK, and is probably the richest habitat we have, this will be devastating for the myriad of species that rely on it for survival. We are in the midst of a climate and nature emergency, with Government saying it is committed to being the first to leave the environment in a better state than they found it." Luci Ryan, Woodland Trust, September 2020.

²⁴ National Biodiversity Database

²⁵ National Biodiversity Database

²⁶ Author's observation

²⁷ National Biodiversity Database



2.3.13 SPR claims it will replant, though it admits it cannot replant trees on top of the cables.

2.Q.11. So, where does the applicant plan to restore the Aldringham woodland, and how will it mitigate for the 20-30 year gap before trees mature, and the 10 year gap before the hedgerow becomes dense enough to start to support the species it used to?

2.Q.12. Once again, we need to know what structures the applicant plans to establish so that we can be assured that potentially harmful omissions like this in planning are eliminated, and that mechanisms will exist for the applicant to correct such inadequate research?

2.3.14 The Biodiversity Net Gain Metric has so far recorded losses in every area of the project.

2.4.0 Bats

2.4.1 The doomed woodland has taken at least 150 years to achieve its current state. Its trees have hollows, and grooves suitable for bats, and standing older trees have cavities for birds, like owls, and insects, like wild bees.

2.4.2 Core Sustenance Zones are areas around breeding animals, where the habitat affects the resilience of the colony. The zone is different for each species but ranges from 1km to 6km, for bats.(28) This shows that development work can impact breeding animals in terms of foraging and commuting and suggests the 50 metre buffer zone adopted by SPR for bats (and the 100 or 200m zone for breeding birds) is dangerously insufficient.

2.4.3 Bats seem more important to SPR towards the western end of the route, with roosts within Grove Wood, and in Friston, perhaps because the applicant attempted a survey of their presence on their substation site, which is their primary focus. SPR's Environmental Statement 6.2.22.7 (APP-280) describes at least 6 bat-roosting sites in the substation site, plus with hedgerows and parcels of land forming commuting and foraging routes. Most of this will be removed. The sightings of bats in this area include the Barbastelle.(29)

2.4.4 Again, the construction and operation of the substations will interfere with the core sustenance zone of these bats. Tree loss, culvert and bridge alterations, will adversely affect roosting opportunities, and the culling of hedges and loss of vegetation will deplete the insect population on which bats rely.

2.4.5 Artificial lighting used for security in construction and maintenance creates barriers between roosting sites and foraging areas. Lighting tends to delay the emergence of bats from roosts. This shortens the time for foraging and therefore affects the health of pregnant females in particular and the bat population in general.

²⁸ Information from the Bat Conservation Trust 'Core Sustenance Zones and Habitats of Importance'.

²⁹ National Biodiversity Database

2.4.6 SPR's bat survey has been a calamity since it suffered an equipment failure and 26% of the results are missing. Despite identifying a Lesser Horseshoe Bat not far from Billeaford Hall and close to the cable route, SPR has declined to investigate further (only one other sighting in the last 100 years has happened in Suffolk(30)). Yet it admits that there is "the potential for significant impacts during construction without mitigation".(31)

2.Q.13. Will SPR urgently consult the Bat Conservation Trust in Suffolk on the dangers to this important bat population?

2.Q.14. This section once more identifies inadequate research. How can we have confidence in the applicant's ability to deal with a project so much in conflict with national Biodiversity aims?

2.5 Reptiles

2.5.1 SPR identified several areas of suitable reptile habitat, however they have not carried out any reptile surveys, as they say in paragraph 152 that the areas are considered to be of an inappropriate size to support large populations.(32)

2.5.2 The Sandlings and wetlands of the SSSI support Slow Worm, Adder, Grass Snake, Green Lizard and Common Lizard.(33)

2.5.3 As we observed in the previous response, SPR plans to leave it to individual operatives to adopt a 'Precautionary Method of Working'.(34) This means that it is left to untrained workers, many of whom are unfamiliar with reptiles, and may find them frightening, to not harm the creatures. This is completely irresponsible. An account of operatives killing Slow Worms in the way of a development made ITV national news just over a month ago.(35)

2.5.4 SPR urgently needs to develop a robust protocol for identifying and protecting these at-risk species, and a management structure that will implement it.

2.Q.15. Will the applicant be transparent about its local management structure?

2.Q.16. Once again, can we be assured that potentially harmful omissions like this are properly corrected, and that mechanisms exist for the applicant to identify and correct inadequate research?

³⁰ Suffolk Wildlife Trust

³¹ Chapter 22, Onshore Ecology, (APP-070), para 218

³² *ibid*, para 152

³³ National Biodiversity Database and author's observations

³⁴ Chapter 22, Onshore Ecology, (APP-070), para 130

³⁵ <https://www.itv.com/news/westcountry/2020-09-27/slow-worms-killed-on-bath-development-site>



2.6 Badgers

2.6.1 SPR has identified 5 occupied badger setts, 4 of which are on the substation site at Friston and will be removed. SPR says, however, that it will somehow avoid disturbing badger setts, or badgers. The 'substation' population is significant and viable, with latrine, pathways, snuffle holes, and a disused sett. SPR suggests artificial setts will be sufficient to translocate them, along with the same 'Precautionary Methods of Working' to which it has consigned the reptiles: in other words, the badgers will be in the hands of SPR's construction subcontractors. There is no transparent management mechanism for applying any precautions that SPR may or may not eventually come up with (36).

2.6.2 Elsewhere SPR appears to have forgotten that it suggested artificial setts and says they will be moved out prior to construction. The consequence will be that the badgers will be culled or left without habitat (37).

2.Q.17. This is not a credible or humane plan. What is the applicant's local management plan for dealing with removal of a protected species?

2.6.3 We can see that the plan for terrestrial wildlife from the coast to Friston impacts Habitat Distinctiveness, Spatial Risk (as it will remove, wholesale, an Ecological Habitat), Habitat Condition, and Temporal challenges, since the mitigation suggested is not possible in the timeframe. Delivery Risk is therefore high, if not insurmountable.

2.7 The River Hundred

2.7.1 The River Hundred is now a slow-moving, narrow water course, although its flood plain, and the Bronze Age burial mounds situated high on the ridged edges of this, show that it was once a navigable river with its estuary somewhere south east of Thorpeness Mere, where there was, until Tudor times, a port. Until this year the River Hundred in Aldringham was designated SLA.

2.7.2 SPR's trenching plans will bisect River Hundred for around 100m.

2.7.3 The closure is within 1000m north of the lush, wetland meadows that it irrigates in its valley, where horses, cattle and sheep graze, and orchids grow. A little distance downstream, beyond Bird's Farm and River Hundred (House), the river enters the wetlands and fen of the SSSI and SPA, south and east of the bisection.

2.7.4 Much of these areas are managed by RSPB North Warren and contain nationally important wildlife. I can find no mention of RSPB North Warren in the surveys. I am at a loss to know why such a huge omission should exist at this stage. I attach the RSPB's schematic plan of the reserve (Annex) which nonetheless shows its proximal interdependence with the River Hundred at the pinchpoint.

³⁶ APP-070 para 209

³⁷ Outline Landscape and Ecological Management, APP-584, para 5.9ff



2.7.5 Despite its narrow aspect, and thanks to the riparian woodland, the River Hundred is able to support Kingfishers, Otters, Grass Snakes, and other hunting aquatic species as well as Water Voles, very close to, or at the bisection point. An absence of records of fish, crustaceans and European Eels (another endangered species) does not mean that fish, crustaceans and eels are absent: the predators would simply not survive without them.

2.7.6 The River Hundred sits inside a typical wetland from the pinch point southwards. Wetlands are the barrier between land and water, and provide an exceptionally rich environment since they remain moist and humid at all times. A wetland biome is richer than any other biome. The 872 species recorded at the pinch point is characteristic. Wetlands typically absorb rainfall, and release it to the river as needed, thus helping to control flooding. However, increasing rainfall with climate change has raised the risk of flooding in recent years, leaving dwellings historically flooded in Coldfair Green and Aldringham at greater risk.

2.7.8 Wetlands ecosystems are very sensitive to disturbance from outside influence, particularly by human development and environmental damage (38).

2.Q.18. What mechanisms will be established to protect properties north and south of the pinch point from rapidly rising waters owing to seasonal rains and tides, once the river has been dammed?

2.7.9 The trenching also cuts through the incipient wetlands at the pinch point. The geology of this area means that the water table rises very high, as do the aquifers. The trenching is unlikely not to disturb them and the risk of environmental impact is great, if not inevitable.

2.7.9 Animals will not be able to pass upstream or downstream, and the trenching will require a temporary bridge or culvert for the haul road, as well as temporary dams, flumes and pumps to minimise upstream impoundment and maintain flows downstream, all with the attendant risk of flooding and surface water pollution.

2.7.10 Nonetheless, SPR's assessment states that any spills will be unlikely, and suggests in any case spills and pollution would be low impact, being absorbed back into the ecosystem.(38) Unfortunately, most studies agree that poisoning from agricultural run-off and industrial pollution are extremely damaging to sensitive wetlands. SPR points out that the Hundred's water quality is not optimal (though it is improving) because of agricultural pollution, but does not allow that its own project will bring inevitable industrial pollution, and disturbance to the water table and aquifers, on a scale the SSSI and Reserve has not seen before.

2.Q.19. A number of dwellings in Aldringham are still reliant on well water. Does the applicant know where these are? What contingency plans exist to ensure their water is restored should there be contamination of the aquifers?

2.Q.20 We repeat, again, that we need to know how such potentially harmful lacunae in planning can be eliminated. We need to see that

³⁸ Paul Keddy, *Wetland ecology, principles and conservation*, CUP, 2010



transparent mechanisms will exist for the applicant to correct its inadequate research.

How can we have confidence in the project?

2.8 Confirm that species remain absent ?

2.8.1 This phrase has been often repeated throughout this process. SPR's surveys have concluded that animals requiring special provision are absent from the areas where they are normally found by other surveys and are known to thrive by those of us who live here⁽³⁹⁾. 'Confirm absence' has been used as a catch all to deal with the problem of the Otter and Water Vole in the River Hundred, as well as the Nightjar, Nightingale, Turtle Dove, reptiles and various endangered bats along the cable corridor. Yet these creatures exist, even if overlooked in an incomplete survey.

2.8.2 It is illegal to remove or harm these endangered creatures without expert guidance. Leaving identification, handling and re-siting to subcontractors is not acceptable.

2.8.3 SPR should re-do their surveys with the help of local experts, and plan proper management of their workforce accordingly.

3 Conclusions: Biodiversity gains or Ecocidal loss?

3.1 The applicant uses the Biodiversity Metric 2019 to make quantitative calculations according to DEFRA's advice.

3.2 Unfortunately, quantitative assessments require accurate data. The applicant's inaccurate and incomplete surveys of the ecologies impacted by this proposal invalidate the results.

Examples:

- i Declaring that a nationally important zone for invertebrates is an area that cannot support invertebrates
- ii Missing the presence of an RSPB reserve
- iii Finding no evidence of reptiles or red-listed creatures where they have been recorded
- iv Digging up a globally important and rare sandlings heath on the grounds that it can be repaired

³⁹ SPR op.cit. para 143



- v Asserting that replacing 11km of grubbed-up hedgerow, much of it centuries old, is possible without harm to those species that create it or depend on it
- vi Destroying trees that support lichens, very rare fungi, and also harbour red-listed animals and invertebrates
- vii Being unaware of the area's status as an Important Invertebrate Area and nationally vital locus of B-lines
- viii Destroying nationally-agreed ecological aims of restoring connectivity between mosaics of threatened habitats
- vix Being apparently unaware of a riparian woodland.

3.3 To achieve an accurate picture of net gain or loss, comprehensive and separate studies should be carried out on each ecologically impacted zone: the littoral cliffs, the sandlings heath SPA and SSSI, the Leiston/Aldeburgh SSSI, the B-lines, the IIA, the River Hundred and its wetlands, including the fen, reedbeds, littoral wetland and protected environments impacted immediately downstream, plus an analysis of the irreparable loss of the old, rewilded and riparian broadleaf woods, the ancient hedgerows, their fungal networks, habitat, forage and hibernation areas.

3.4 For instance, SPR's account of its impact on the more industrialised landscape in EA1 was able to record a biodiversity gain⁽⁴⁰⁾.

3.5 However, the recognised, globally important, areas of the Suffolk AONB, SPA, and SSSI cannot be restored in anything short of a timescale of decades or centuries. The applicant is not repairing agricultural land around Friston: in getting cables there, the applicant is destroying important heritage sites. To claim it is possible to reverse the damage is pernicious, particularly in the current crisis of nature.

3.6 The SAC, SPA, SSSI, and adjacent environmentally sensitive areas — including ancient hedgerows, woodland and wetlands — are at serious risk. Areas which have been selected and protected to combat fragmentation of important habitats for wildlife and support biodiversity will be rendered patchwork, and will not recover for decades, or for as many centuries as it has taken to achieve their current state. Red-list species at risk of extinction will be made even more vulnerable. I believe I have demonstrated that the project fails every Biodiversity Net Gain Criterion.

3.7 No management structures capable of dealing with the detail of such an environmentally sensitive project have been shown, not at planning stages, nor in research, nor going forward. There is a lack of transparency and consultation,

3.8 The National Planning Policy Framework states that, 'plans for renewable energy should ensure that adverse impacts are addressed satisfactorily, including

⁴⁰ SuDS Scottish Power, *Suffolk Naturalists*, 2019



cumulative landscape and visual impacts.' This stipulation has plainly failed in this case.

3.9 Development should be halted until a fuller, accurate set of surveys can be achieved and a more complete picture drawn of all at stake, from which safer solutions can be found.

Dr Gillian Horrocks, [REDACTED]

Annex - Plan of RSPB North Warren, missing from the Applicant's plans.

The bisection of River Hundred is under the right foot of the Bearded Tit.

